Appendix no. 1 – Award application *

1. Applicant

Name: **Cazacu**

Previous Names (if applicable):

First name: **Maria**

PhD year (a copy of the PhD diploma or a equivalent is presented):**1996 (the copy is attached)**

Position held: **Scientific Researcher (CSI), head of the Inorganic Polymers Department**

Institution: **"Petru Poni" Institute of Macromolecular Chemistry Iasi**

Mobile phone: (

E-mail address:

2. "Romanian Research Gala" edition: **2024**

3. Award and category for which you apply (individual or research team): **Raluca Ripan award (Chemistry); Research team (NewSmartSil, https://icmpp.ro/newsmartsil)**

4. Team Leader, if there is the case: **Dr. Cazacu Maria (MC), CSI, 1996**

5. Composition of the research team, if applicable (names of team members, position held, year of last degree awarded): **13 (six accredited researchers, including the team leader, four research assistants, three PhD students) who contributed to the results obtained in the last five years.**

Nr.	Team member names	The name`s abbreviation	Position held	Year of last degree awarded	Total articles/in the last 5 years (Qx)	h index	Cumulated A (in the last five years)
Team Leader							
Cazacu Maria		**MC**	**CSI**	**1996**	**271/52(13Q1, 26Q2, 7Q3, 4Q4)**	**27**	**5.037**
Team Members							
1.	Racles Carmen	CR	CSI	2000	133/23 (4Q1, 10Q2, 7Q3, 2Q4)	21	2.122
2.	Shova Sergiu	SS	CSI	1983	470/131 (23Q1, 40Q2)	33	8.743
3.	Dascalu Mihaela	MiD	CSIII	2010	73/36 (8Q1, 17Q2, 6Q3, 3Q4)	18	3.262
4.	Zaltariov	MFZ	CSIII	2014	90/45 (14Q1,	16	4.137

	Mirela-Fernanda				20Q2, 8Q3, 3Q4)		
5.	Tugui Codrin[a]	CT	CS	2017	39/21 (13Q1, 6Q2, 2Q3),	15	3.126
6.	Stiubianu George-Theodor	GTS	AC	2012	38/11 (5Q1, 4Q2, 2Q3),	16	1.187
7.	Bargan Alexandra	AlB	AC	2010	74/30 (7Q1, 13Q2)	17	2.551
8.	Bele Adrian	AdB	AC	2017	62/29 (13Q1, 12Q2, 4Q3),	18	2.755
9.	Soroceanu Alina	AS	AC	2014	16/4 (2Q2, 2Q3),	8	0.582
10.	Damoc Madalin	MaD	AC, PhD student	2023	14/14 (1Q1, 12Q2, 1Q4)	4	1.434
11.	Stoica Alexandru-Constantin	ACS	PhD student	2020	12/12 (2Q1, 8Q2, 1Q3, 1Q4)	2	1.203
12.	Ciubotaru Bianca-Iulia	BIC	PhD student	2019	20/16 (7Q1, 6Q2, 1Q3, 1Q4),	5	1.252

[a]Postdoctoral Research Associate, University of Connecticut, since July 1, 2023
[b]January 2019 – April 2019 – Postdoctoral scholar at Department of Chemical Engineering and Materials Science of the Henry Samueli School of Engineering, University of California Irvine, SUA.
November 2022 – December 2023 – Postdoc, research staff, at Department of Chemical Engineering and Bioengineering, Technical University of Denmark, Lyngby, Denmark.

The **NewSmartSil team** (https://icmpp.ro/newsmartsil/) is the successor of the group that was a pioneer in applied research for the introduction of silicones industry in Romania. The Team, which is unique in Romania, started since 2010 a significant transition towards a new generation of silicone compounds and materials that would respond to the new challenges, related to energy, climate change and environment, space exploration, health, etc., and requirements for the development of emerging and future technologies. This evolution involved a paradigm shift, from classic silicones for applications in which they had a passive role (by covering, sealing, insulating, lubricating, waterproofing, etc.), to "smart" ones, capable of self-healing or responding to external stimuli (i.e., electrical, mechanical, magnetic, thermal, optical), and from amorphous silicone derivatives to those with different ordering degrees (from supramolecular aggregates to liquid crystals and crystals). The team's commitement is to approach the research from the stage of design and chemical synthesis in the flask, up to innovative functional materials of applied interest.

The team is multidisciplinary, consisting of *professionals woth various backgrounds*, including chemists, chemical engineers, physicists, medical bioengineers, all having or training for PhDs in chemistry. This diversity allows us to cover a large range of research topics, from synthesis to materials and devices. The effective collaboration and complementarity between the team's members led to remarkable results with high innovative character, including, for example, electromechanical, magnetic, photo- or thermo-actuators and electric generators, all starting from silicone compounds and materials, as well as original silicone formulations for 3D printing, or self-healing and recyclable silicones.

Our work has been published in relevant journals in the field of organic and inorganic chemistry (Dalton Transactions, Polyhedron, Journal of Molecular Structure, Applied Organometallic Chemistry, European Journal of Inorganic Chemistry, Advances in Inorganic Chemistry, Inorganics), polymer chemistry (Polymer, Polymer Chemistry, European Polymer Journal, Journal of Applied Polymer Science, Chemical Engineering Journal, Journal of Polymer Research), physics and physical chemistry (Journal of Physical Chemistry C, Surfaces and Interfaces, Colloids and Surfaces A: Physicochemical and Engineering Aspects), materials and nanomaterials (Surface & Coatings Technology, Journal of Materials Research and Technology, Small). The group has 83 published articles in the last 5 years (considering articles co-authored by at least two members of the team), with a **FIC_{2023}=377.3 and cumulated AIS=49.8.** Of these, 64 articles are in the field of silicones. In addition, 145 articles have been published by members of our team in collaboration with *(other)* researchers from Romania or abroad, most of these in crystallographic analysis, based on the strong infrastructure and competences developed within our group. Some of the innovative results obtained by the team members **in the last five years** have been the subject of ***two granted patents*** and ***six patent applications*** under evaluation. Within the team, **13 projects** of different types, H2020-MSCA-RISE, experimental-demonstration (PED), exploratory research (PCE), complex frontier research projects (PCCF), postdoctoral, (PD), young teams (TE) have been implemented in the last five years.

6. A description of the most important scientific achievements of the last 5 years (max. 4 pages, A4 format, Times New Roman characters, 12 points, 1.5 line spacing and 2 cm margins)**.

An illustrative presentation of the main results obtained by the NewSmartSil team in the last five years can be seen on: https://icmpp.ro/newsmartsil/results.php

I.The transition from passive, thermosetting silicones to active and thermo-/solvoplastic (recyclable) ones (19 articles: 10Q1, 6Q2, 2Q3, 1Q4, 2IP, 5PA) ***I.1.High performance dielectric elastomers*** through several approaches: *I.1.1.Chemical modification of the structure and crosslinking pattern of basic polysiloxanes (PDMS)* •*A PDMS of ultrahigh molecular mass* (Mw=1,395 kDa) and narrow polydispersity (PDI=1.4) was obtained with very high yield through a clean, green, easy-to-achieve, scalable process (bulk anionic ring-opening polymerization). Based on it, a *supersoft* (Y=0.3 MPa) and superelastic elastomer was obtained (~1350% elongation with good elastic recovery) [doi.org/10.1016/j.eurpolymj.2019.109243]. •Poly(dimethyl-co-methylvinyl)siloxane-α,ω-diols with different contents of vinyl groups were prepared and chemically modified by thiol-ene addition of 3-chloro-1-propanethiol. The elastomers obtained by the condensing crosslinking of the modified copolymers showed *the highest out-of-plane actuation reported so far* (up to 61% for polar contents of 8.5 mol%, at 40 V/μm). [doi.org/10.1002/app.52261], [http://www.icmpp.ro/ped/Video1.mp4]. •It has been demonstrated how the mechanical, dielectric and electromechanical parameters of silicone elastomers, as well as the biological activity, can be tuned by the crosslinking pattern [doi.org/10.1039/D0PY00223B, doi.org/10.1016/j.surfin.2022.102168]. Free-standing films of polysiloxanes chemically modified with Disperse Red 1 exhibited actuation on three different mechanisms: electrical, piezoelectric and photo-induced [doi.org/10.1016/j.cej.2020.126087]. *I.1.2. Preparation of silicone composites by incorporating:* •*Polyimide copolymers,* obtaining thin-film composites with similar current generation capabilities to traditional piezoresistive materials at d_{33}~2.5 pm/V, with a detection limit of 0.005 N and a maximum harvested voltage of 750 mV, of interest for self-powered human skin-like pressure sensor and kinetic energy harvesting applications. In addition, the materials show lateral strain actuation values up to 6.2% at 28.9 V/μm [doi.org/10.3390/molecules27238524]. •*Raw sodium bentonite*, a natural, non-toxic, environmentally safe material and about 30 times cheaper than PDMS, which significantly increases the dielectric permittivity and induces the piezoelectric-like response of the resulted composites with average apparent d_{33} piezoelectric constant, up to 37 pm/V for a 100 pph bentonite load [doi.org/10.1016/j.jmrt.2021.12.125]. •*Octakis(phenyl)-T8-silsesquioxane,* as a *tension stabilizing filler*, was used for the first time to obtain dielectric elastomer actuators with increased lateral actuation and electrical breakdown strength. Soft elastomers with high strain *(~800%) and low Young's modulus (50–100 kPa), were obtained [doi.org/10.1002/app.50161].*

I.1.3. Formulations and processing technologies: •*Modular installation and process for obtaining multilayer polymer generators* [Pat. 132642/2019] [http://www.icmpp.ro/ped/Video2.wmv]

[http://greenergy.icmpp.ro/index.html]. The technology allows the deposition of successive dielectric-electrode-dielectric stacked layers that are co-crosslinked to maintain perfect compliance between the layers. Stacked actuators with 30 layers based on a customized silicone that can lift 250 times their weight at only 20V/µm were obtained, while a similar one based on 3M VHB, most often used for such applications, can lift 10 times its weight [doi.org/10.1016/j.cej.2019.01.150]. Promising performance was achieved for such stacked generators manufactured with simple silicone or PDMS-TiO_2 nanotubes composite, and PDMS-CB electrodes, with energy density of 1.1 and 1.3 mJ/cm^3, respectively, at low electric field (3 or 2.5 V/µm)]. •*All-silicone 3D printing technology.* A simple silicone formulation, without solvent, metal catalyst or thixotropic agent, for 3D printing in complex geometries with exceptional mechanical properties has been developed. The printing platform produced a rubber grid consisting of 24 printing layers that can withstand 100 compressive cycles at 50% strain without hysteresis. Moreover, the 3D-printed silicone ink generates elastomers with very good mechanical properties, and a maximum actuation strain of 9.5% at an 41 kV/mm electric field. Our approach opens pathways for processing soft materials based on pure silicones with unique geometries for medical devices, soft actuators, haptics, and beyond [doi.org/10.1021/acsapm.3c01190, Pat. Appl. 00198/2022]. ***I.2. Smart, sustainable (self-healing and recyclable) silicones*** *I.2.1.Compact supramolecular and porous dual covalent/supramolecular silicone networks* have been developed based on structure and composition-costumized polysiloxane mixtures. The assembling through supramolecular interactions is responsible for their self-healing and recycling ability, which constitutes a significant advancement towards susteinability versus clasic termorigid silicones. The presence of polar groups also increases the dielectric permitivity of the elastomers, and implicitly their electromechanical performance [doi.org/10.1016/j.reactfunctpolym.2022.105419]. With a porous morphology developed within a flexible matrix, the material exhibited stable capacitance variation with a response sensitivity of 0.01 kPa^{-1} in the 0-50 kPa pressure range, making them suitable for capacitive pressure sensors [doi.org/10.1016/j.reactfunctpolym.2023.105792; [doi.org/10.3390/gels8060377]. *I.2.1.Smart silicones for space applications*. Silicone elastomers based on dynamic supramolecular cross-linked polysiloxanes were prepared, and used for the first time in the construction of modular sensor networks for the detection and evaluation in real time of the impact produced by micrometeoroids and orbital debris (MMOD) in space vehicles. This technology is also capable of operating in a wide temperature range (-70 to 150 °C), can detect multiple simultaneous impacts, and, due to the self-healing properties of the silicone used, allows the recovery of the original shape of the damaged sensor [Pat.Appl. A100664/2023].

II. The transition from amorphous silicones to ones with a high ordering degree (36 articles: 5Q1, 16Q2, 9Q3, 4Q4, 1PA). Due to the flexibility conferred by the siloxane bond and the very weak intermolecular interactions, classic silicones are recognized as being amorphous. By attaching polar groups, the ordering capacity increases, from aggregates (micelles) in solution, to liquid crystals and crystals, especially if they coordinate metals. The **NewSmartSil** team carried out pioneering research, both experimental and theoretical, in this direction, obtaining a series of original siloxane-organic and 0-3D coordination structures (*over 120 such structures registered in the CCDC database, of which 35 in the last five years*) with remarkable behaviors and properties: ***II.1.New organo-silicone compounds (proligands)*** *II.1.1.A library of bis-triazoles spaced with organosilicon fragments* proving to be biologically active agents in a lipophilic environment, with an inhibitory activity 55 times higher than the reference drugs [doi.org/10.1016/j.molliq.2019.111560]. *II.1.2.1-(3-Aminopropyl)silatrane* and, for the first time, its imino derivative with 5-nitrosalicylaldehyde were synthesized and studied from the structural point of view and the biological potential, both experimentally and by molecular docking. The results indicated the nitro derivative to be more mucoadhesive and with greater cytotoxicity than 1-(3-aminopropyl)silatrane, while the latter had greater antimicrobial activity and an ability to bind to an M^{PRO} receptor (the main protease of COVID-19) with a binding affinity comparable to that of the antiviral drugs chloroquine and hydroxychloroquine [doi.org/10.3390/pharmaceutics14122838]. The chemical handling of the silatrane tail, by using different substituents on the silicon atom allows the fine tuning of the compound properties [doi.org/10.1016/j.arabjc.2018.09.001]. Other silicon-derived materials for biomedical applications have also been developed [doi.org/10.3390/nano12111823, doi.org/10.3390/ijms241914687]. *II.1.3.A library of original compounds obtained by S-coupling of the 5-amino-1,3,4-thiadiazole-2-thiol* fluorophore to flexible, hydrophobic, saturated fragments (silicone or alkylene) has been obtained. It was found for the first time that the silicone moiety insertion is a straightforward pathway of controlling photochemical processes in relationship with the self-assembly capacity and aggregation in solution, inducing several interesting properties to the compounds: excited-state intermolecular proton transfer (ESIPT), anti-Kasha blue and green fluorescence, high photostability, color tunability, depending on the environment and the excitation wavelength, and a RT phosphorescence in the NIR region. The anti-Kasha fluorescence allows light harvesting from high-energy excited states [doi.org/10.1021/acs.jpcc.2c07651]. *II.1.4. A library of low molecular silicones (di- and cyclosiloxanes) modified with polar (carboxyl or carbonyl) groups* whose properties (electrical parameters, phase state and thermal stability) recommend them as solvent-free liquid electrolytes [doi.org/10.1016/j.molliq.2019.03.005]. They also proved to be valuable ligands that, thanks to the surface activity, allow, simultaneously with the coordination of the metal ions, the rapid self-assembly *in situ*

of the complex into spherical particles. These metallosurfactants are of interest in organic catalysis, where they can react with both hydrophilic and hydrophobic substrates [doi.org/10.1016/j.colsurfa .2019.123756]. *II.1.5.A series of tetramethyldisiloxane-spaced salen type Schiff bases* has been prepared for which the ability of self-assembly in solution, has been highlighted, this favoring the development of the reaction with maximum yield. They exhibit surface activity in DMF and ability to bind metal ions greater than similar compounds with polymethylene spacer [doi.org/10.1016/j.molliq.2020.113852]. ***II.2. Coordination compounds of some ligands containing permethylated siloxane moieties.*** *II.2.1. Transition metal coordination (0D) compounds with siloxane-spaced salen-type ligands* (6 structures) that show a liquid crystal (LC) behavior, being among *the first metallomesogens with a silicone structural motif.* and exhibit aggregation-induced emission, dichroic behavior, or orientation capability in electric or magnetic field [doi.org/10.1039/D1DT01980E]. The crystalline paramagnetic Co(II) complex from this series exhibits a transition to magnetic nematic LC upon heat treatment (ferronematic). By incorporating it into a silicone matrix, a 3D printable ink was formulated, finding that the LC state is preserved even at RT in the printed objects, which are mechanically responsive to magnetic stimuli (they can carry objects, bypass them, rotate in magnetic fields on wet surfaces or roll on rough surfaces), of great interest in soft robotics, wearable technology and biomedical devices. The response depends on the objects shape and size and the applied magnetic field. For example, a star shape of 1 cm diameter and 0.72 mm thickness, containing 9.1 mg complex shows a speed of 0.78 ± 0.17 cm/s under B = 100 mT [doi.org/10.1002/smll.202307006]. *II.2.2.2D coordination compounds.* The ligands containing permethylated silicone segments, favor the 2D anisotropic growth of the metal coordination structures, due to their surface activity, and prevent the establishment of noticeable interlayer interactions. Different from the known 2D materials, they have the advantage of being more easily delaminated and more tunable. The team published *the first articles in the literature about such 2D siloxane-containing structures* (*9 structures*), studied from the perspective of their structural features, material properties, reactivity, functionality (molecular switching material responsive to external optical and magnetic stimuli [doi.org/10.1002/ejic.202000098]) and reusability/recyclability potential [doi.org/10.1002/aoc.5957, doi.org/10.1016/j.reactfunctpolym.2021.105039]. The magnetic dimer of a cobalt dinuclear 2D network proved to be *a singular SMM MOF built-up of Co-dimers with an anisotropic exchange interaction* [doi.org/10.3390/molecules26185626]. *II.2.3. 3D coordination compounds.* By using a siloxane-spaced ligand for Mn(II), a very dense 3D coordination structure with *strong electrical insulator character unaffected by moisture*. The magnetic results indicated a dominant antiferromagnetic interaction along the chain in the polymer [doi.org/10.3390/inorganics11010021]. Siloxane MOFs were also demonstrated to behave as very active catalysts for photo-oxidative degradation of organic pollutants like doxorubicin by exposure to daylight [doi.org/10.1007/s11356-019-05288-7].

7. Narrative Curriculum Vitae of the "individual" candidate or of each member of the research team, in the case of the "research team" candidate, showing the research activity results of the last 5 years, according to the quantitative indicators in Annex no. 2 of the regulation and qualitative assessment criteria provided in Annex no. 3 of the regulation.

Dr. Maria Cazacu – Senior researcher (CSI), Team Leader

As a graduate of "Gh. Asachi" Polytechnic Institute of Iasi, Romania, Faculty of Industrial Chemistry, Macromolecular Compounds Technology in 1981, I worked for 8 years in industry, after which, starting in 1981, I worked in research, at "Petru Poni" Institute of Macromolecular Chemistry, Inorganic Polymers Department, Iasi, Romania, where I went through all the professional levels, from chemical engineer to scientific researcher grade I and since 2010 I have been a PhD supervisor.

With 34 years of research experience, mainly in the field of silicones, I coordinate the **NewSmartSil team**, the continuation of the only research collective in the field of silicones in Romania. By identifying and understanding scientific and economic priorities, exploiting the accumulated knowledge portfolio, and establishing coherent research programs, I believe that I have contributed to defining a field with clear research directions and to consolidating a powerful, visible team with a solid background in exploiting the chemistry and particularities of silicones in order to bring them to another level, as valuable, "smart" materials. For this, in addition to the core team of established researchers, I have trained nine PhD students on topics in the field of silicones (seven theses being completed and three in preparation), two other theses under co-supervision in different fields.

Together with the team, I got involved in obtaining new compounds and derivative materials, stimuli-responsive for the needs of emerging and future technologies. For this, we have designed valuable hybrid structures that synergistically combine the unique properties of silicones with those of other organic or inorganic compounds and, as far as possible, meet the requirements of sustainability. Thus, by manipulating the chemical structure [doi:10.1088/0964-1726/22/10/104004], the crosslinking pattern [doi.org/10.1039/D0PY00223B] or appropriate additions (metal oxides and complexes, ceramic materials, organic polymers as nanoparticles or networks) [doi:10.1016/j.compositesb.2014; doi:10.1039/c6py00157b; doi.org/10.1016/j.jmrt.2021.12.125], we have developed silicone elastomers that can be thermosetting or, more recently, thermo- and/or solvoplastic, functional as active elements (dielectric and flexible electrode) in electromechanical transducers (sensors, actuators or generators), piezoelectric, thermochromic or optical sensors

[doi:10.1039/c6py00157b;doi:10.1016/j.cej.2019.01.15; doi.org/10.1002/smll.202307006; DOI 10.1021/acsapm.3c01190] (**45 articles published in ISI journals on this subject, 15 of which in the last five years**). By attaching suitable organic groups to the flexible and hydrophobic silicone substrates, we developed a series of original proligands based on which we build highly ordered compounds and coordination networks with metals. They present properties induced by the coexistence in the structure of polar-nonpolar, hydrophilic-hydrophobic, crystalline-amorphous fragments: self-assembly capacity, both in solid state and in solution, surface hydrophobicity in solid state, mesophase, glass transition at low temperatures, etc. (over 120 such structures registered so far in the CCDC database and over 90 articles published in ISI journals, of which **30 articles and 35 structures in the last five years**) [doi.org/10.1016/bs.adioch.2020.03.003; doi.org/10.1039/D1DT01980E]. The 2D coordination networks that form mainly on the basis of such surface-active ligands, due to the extremely weak interactions between the layers, have proven to be easily exfoliable into individual nanosheets, similar to graphene, the revolutionary carbon-based material or, more recently, the MXenes. Compared to these, the 2D coordination networks possess more parameters, through which the properties can be directed (the silicone fragment, the group and the coordination model, the metal ion, the co-ligand). I am the author/co-author of the first articles in the literature with such structures based on ligands with siloxane spacers or trimethylsilane "tails"[doi.org/10.1002/ejic.202000098; doi.org/10.1016/j.reactfunctpolym.2021.105039].

The results of the scientific activity can be found in 272 published in ISI journals (of which **52 in the last five years**) and more than 100 studies in other specialized national or international journal, or in the volumes of recognized scientific events from the country and abroad at which they were presented. I am the corresponding author for 127 ISI articles (47%), of which **24 in the last five years**. I have also published three books (one by author and two as editor) and 12 book chapters. **Scientometric indicators:** 3344 citations (2408 without self-citations), h-index=27 (*Web of Science); 3653 citations, h-index=29 (ResearchGate); 4121* citations, h-index=32, i10-index=139 (Since 2019: 1842 citations, h-index 21, i10-index=61) (Google Scholar). 52 articles published in ISI journals in the last five years (13Q1, 26Q2).

I am the co-author of **eight granted patents** (of which **two in the last five years**) and six patent applications (including **one international patent, WO2015135086 A1**) and seven applied research works (technologies) at the laboratory level, developed within the program for the development of silicone technologies in Romania between 1989-1991. Together with collaborators from academia

and the private sector, we have developed and patented an all-silicone formulation for 3D printing technology [Patent req. RO 00198/2022].

Part of the developed research activities were financed from extra-budgetary funds, in a total equivalent amount of about 3,900,000 EUR attracted through 24 research projects, obtained by participating in national and international competitions, in which I had the capacity of project director (13, of which one project from Structural Funds POS CCE of 1,500,000 EUR and two bilateral projects with abroad) or responsible partner (11, of which one European project from the FP7 program) but also through research services to third parties. Of these, 925,000 EUR were attracted through projects completed in the last five years (3 as project director and three as responsible partner). Also, I was involved as a member in the teams of 20 national and international projects (3 in the last five years). Through the attracted funds, I equipped the laboratory with eight large pieces of equipment (three of them purchased in the last five years), the most important being an X-ray diffractometer on single crystal (Oxford-Diffraction XCALIBUR E) which, under the conditions of attracting and permanentizing in the institute a high-level specialist from abroad, became a real "hub" of national and international collaboration, with 124 articles published in collaboration on crystallographic analysis only in the last five years. Also, the young human resource was formed to meet the growing demands and ensure continuity in crystallographic analysis. I have ensured the material basis necessary for the development of creative ideas, mobility and salary motivation of team members, including doctoral students (equivalent to approximately EUR 176,000 for doctoral students in the period 2011-2023, from which about 56,000 EUR in the last five year). I believe that the results obtained reflect the constant commitment to innovation and progress in a field with a significant potential and impact for all areas of human activity, given that the human resource engaged in this endeavor, worldwide but especially in Romania, is limited.

For the results obtained throughout my career, I was rewarded with a series of awards: •The Romanian Academy Prize for Chemistry, "C. D. Nenitescu" (1996); •Diplomas and Gold Medals at: International Exhibition of Inventions Scientific Research and New Technologies, Inventika, 13th edition (2009), Bucuresti, Romania for the Patent "Polymer-based microactuator" and 22nd edition - 2018 Iasi, Romania; at National Exhibition/Salon CHIMINVENT (2005 and 2013) Iasi, Romania; •"Petru Poni" Medal and the Diploma of Honor for outstanding contributions to the promotion of chemistry awarded by the Romanian Chemistry Society (2019); •"Cristofor Simionescu" Medal for Excellence in the Field of Macromolecular Chemistry, awarded by the American Chemical Society

(October 2022); •Nomination with the coordinated team in the "Best experienced research team" category at the first edition of the Romanian Researcher Gala (January 2023).

I am a member of the Romanian Chemical Society since 2000 and since 2023 I am a corresponding member of the Romanian Academy.

I have gained organisational skills and competences in: •Project management: attracting funds for research through the application and implementation of projects; •Coordination of the scientific activities for a research team (5-15 members) in the period 1997-present; •Head of Department of Inorganic Polymers since 2015 (30-40 members).

I have contributed to the wider research and innovation community by: •Peer-review activity for national (UEFISCDI) and international (INTAS, ERA.NET RUS, National Science Centre - Poland, Czech Science Foundation) programs/projects; •Peer-review activity for scientific journals (over 190 scientific articles reviewed); •Member of the Examination Board for 21 doctoral theses and 5 habilitation thesis; •Member of Promotion Commissions for higher positions (CSI, CSII, Professor): 3; •Member of the North-East Academic Advisory Commission; member of CNATDCU, 2016-2020; 2020-present, vice-president of the chemistry section; •Member of CSUD-SCOSAAR since 2023.

My team and I collaborated with research teams from the country ("Al. I. Cuza" University, "Gheorghe Asachi" Technical University, and "Gr. T. Popa" University of Medicine and Pharmacy in Iasi, University of Bucharest, Polytechnic University and University of Constructions Bucharest, National Institute of Research and Development for Technical Physics, Iasi, Timișoara Institute of Chemistry of the Romanian Academy, Institute of Biology of the Romanian Academy, Bucharest, National Research-Development Institute for Cryogenic and Isotopic Technologies ICSI Rm. Valcea, INOE 2000 - Branch of the Research Institute for Hydraulics and Pneumatics Bucharest, etc.) and abroad (Institute of Inorganic Chemistry, University of Vienna, Austria, Polymer Institute of the Slovak Academy of Sciences, Bratislava, Slovakia, University of Zaragoza, Spain, National Laboratory of Intense Magnetic Fields-CNRS, Grenoble, France, Institute of Chemistry from Chisinau of the Academy of Moldova, etc.) or with companies (UNDA TECH SRL Bucuresti, Geotechnical Expert S.R.L., Bucuresti, Sara Pharm S.R.L., Teracrystal S.R.L., etc.) for the development of joint research and projects.

Available links:

https://orcid.org/0000-0003-4952-5548; **Web of Science ResearcherID:** B-5344-2012

Brainmap ID: U-1700-033Q-4389

https://www.researchgate.net/profile/Maria-Cazacu

https://scholar.google.ro/citations?user=ZHTQTPEAAAAJ&hl=ro

https://icmpp.ro/newsmartsil/; https://www.icmpp.ro/projects/l6/results

Dr. Carmen Raclas - Senior Researcher (CSI), Team Member 1

Carmen Racles was born on 29 Oct. 1967 in Rosiori-Bacau. She graduated from "Gh. Asachi" Polytechnic Institute of Iasi, Faculty of Industrial Chemistry, in 1991. Since 1992 she is employed at "Petru Poni" Institute of Macromolecular Chemistry Iasi, Inorganic Polymers Department, following a series of content-based promotions from research assistant to scientific researcher, and senior researcher, reaching the highest level of senior researcher Ist degree in 2017.

She defended her Ph.D. in 2000 at "Gh. Asachi" Polytechnic Institute of Iasi, Romania, having as topic: "Silico-organic polymers with ester internal groups". She attended a post-doctoral fellowship at CNRS-Lyon, France (2002-2003), working on "New biocompatible polymer materials for encapsulation and controlled release of active principles".

Dr. Carmen Racles specialized in the field of chemistry, subdomains of polymer chemistry, inorganic chemistry and silicon-organic chemistry, with expertise in synthesis and characterization of siloxane-based compounds, polymers and materials, materials characterization using various methods such as: infrared spectroscopy, proton and carbon nuclear magnetic resonance, X-ray fluorescence, surface tension measurements, etc. Her main core competences are in the fields of surfactants, liquid crystals, nanoparticles, composite materials, electroactive polymers, sensors and actuators based on silicone materials, proligands and metal complexes. Dr. Racles's research interests are:

-Polymers: self-assembling, general characterization, structure-properties relations;
-Polysiloxanes and siloxane copolymers: synthesis, properties and silicone materials;
-Liquid crystals, in particular siloxane-containing LC: synthesis, characterization, kinetics of phase transitions, Polymer-dispersed liquid crystals (PDLC);
-Surfactants: synthesis, surface properties, self-assembly;
-Nanoparticles: polymer NPs, metal NPs, SPIONs: preparation, investigation, applications;
-Nanostructured materials, organic-inorganic hybrids;
-Silicone elastomers and networks: tuning electrical and mechanical properties by structure;
-Electro-active polymers;

-Drug encapsulation: blends, nanoparticles, solubilization aspects;

-Metal complexes and polymer coordination compounds;

-Materials for biomedical applications;

-Catalysts.

During her carrier, Dr. Carmen Racles approached several research subjects that had not been studied in the Institute before, and obtained notable results. The first topic in chronological order was the synthesis of organo-siloxane liquid crystals: small molecules, telechelic oligomers, and polymers (azometines, arylidenes, polyesters, polyethers), and PDLC materials. Another topic that Dr. Racles developed within the group was the self-assembling of siloxane-organic compounds. This phenomenon was studied on several types of polymers and continued with the work on siloxane surfactants and their applications in nanotechnology. The particularities of the siloxane-containing amphiphilic compounds were explored for example in synthesis and stabilization of several types of nanoparticles, solubilization of poorly soluble drugs, chemical reactions (polycondensation, cross-linking of silicones by various mechanisms) carried within the micelles, or drug encapsulation. In close connection with this topic, all-polymer composite materials have been prepared, using pairs of incompatible polymers, one as a matrix and the other as dispersed submicron particles, stabilized with specially designed surfactants. More recently, dr. Racles also contributed to the topic of poly(metalo-siloxanes), aiming to synthesize new pro-ligands and metal complexes with siloxane moieties in their structure, finding new applications (e.g. as catalysts) or exploring their self-assembling as a tool for preparation of nanoparticles. In the field of electroactive polymers, dr. Racles contributed as a member and team leader in international projects (FP7, COST and RSRP program) and led the publication of numerous ISI articles on chemical modification of polysiloxanes for increased electromechanical performance, composite materials, interconnected polar-nonpolar networks, materials with promising behaviour as actuators, generators or sensors.

Dr. Carmen Racles also initiated and cultivated several international collaborations, with researchers from Hungary, Russia, France, Poland, Switzerland, Germany and Slovakia within the framework of inter-academic exchanges, and bilateral projects.

Her scientific achievements are briefly summarized as follows: author and co-author of 133 ISI articles (from which 23 in the last 5 years), 1 book; 8 book's chapters; 10 articles in Romanian journals, 20 *in-extenso* studies at international conferences; 5 patents and 40+ oral communications. She was member in more than 30 research projects, from which 5 as project coordinator (two with

international financing). From the total, 7 projects were founded by international entities (for example, an FP7 project, a COST project –ESNAM-, and a Swiss-Romanian research project). She has 898 citations without self-citations, and a Hirsch index of 21 (according to https://www.webofscience.com/wos/woscc/citation-report/1ccd86c6-bdb6-4773-bac8-55758f7df3c3-c4116e46).

Dr. Carmen Racles received "C. D. Nenitescu" Price of the Romanian Academy in 2007, and Honorary Degree of The Romanian Chemical Society in 2022.

Additional information: https://orcid.org/0000-0003-3343-9389; Brainmap: (UEFISCDI ID (UEF-iD):U-1700-034G-5396;
https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=racles+carmen&oq

Dr. Sergiu Shova - Senior Researcher (CSI), Team Member 2

Sergiu Sova received his diploma from the State University of Moldova's Chemistry Faculty in 1980. After graduation he applied for a PhD student position the Institute of Applied Physics of the Academy of Sciences of the Republic of Moldova under the supervision of Prof. Dr. Yurii Siminov (head of the X-ray Analysis Laboratory). The Chemistry PhD thesis entitle "*Synthesis, structure and properties of iron(III) compounds with S-alkylisothiosemicarbazide-based ligands*" was defended on June 5, 1985 in Odesa within the Specialized Council of the Physico-Chemical Institute of the Academy of Sciences from Ukraine. The main objectives of the PhD thesis, consisted in obtaining for the first time of new coordination compounds of iron(III) with tetradentate ligands based on S-alkylisothiosemicarbazides. By creating novel template condensation techniques for S-alkylisothiosemicarbazides using various carbonyl agents on the Fe(III) ion matrix, these goals were accomplished. These novel synthesis techniques produced a wide range of mono-, bi-, and polynuclear iron compounds with unique magnetic characteristics. The single crystal X-ray diffraction analysis method was used to determine the crystal structure of these compounds.

He was employed as a Lecturer at the State University of Moldova's Department of Inorganic Chemistry in 1985. He has been a Lecturer at the State University of Moldova's Chair of Inorganic Chemistry since 1994. Within the Faculty of Chemistry of the USM, he developed and supported courses in *General Chemistry*, *Inorganic Chemistry*, *Chemistry of Coordination Compounds*, and implicitly the seminars and laboratory in these disciplines. Starting with 2000, he held the courses and the laboratories for students and masters in the discipline *Crystalochemistry and single crystal X-ray analysis*, being also the supervisor in

the elaboration of bachelor's and master's theses. In 2005, he held lectures and seminars on the topic *Crystalochemistry of coordination compounds and the method of X-ray analysis on a single crystal* at the University of Vienna for students and PhD students from Faculty of Chemistry. In the period between 2010-2013, he also held these courses in the group led by Dr. Cazacu Maria, with the aim of implementing the X-ray diffraction study method on a single crystal for the structural characterization of the coordination compounds obtained during the course of the POLISILMET project.

The research activity was carried out in several research collectives as follows:

- ***State University of Moldova***: The research carried out was aimed at the synthesis and study of complex compounds of 3d metals based on S-alkylisothiosemicarbazides as bidentate ligands as well as on polydentate ligands as condensation products of S-alkylisothiosemicarbazides with different carbonyl agents such as: a) derivatives of salicylic aldehyde, b) 2-pyridinaldehyde, acetylacetone and its derivatives, c) 2,6-diformyl pyridine, d) 2,6-diformyl-4-methylphenol, e) 3-formylsalicylic acid, etc.

- ***CNRS Coordination Chemistry Laboratory, Toulouse, France***: Postdoc position within the project "*Towards control of the intrinsic characteristics of spin-crossover in ferrous materials*" (Tr 97/31 and Tr 97/32) Deutsche Forschungsgemeinschaft (DFG) and CNRS-DFG collaborative programs. Within this project, research was carried out in order to obtain and study the properties of several classes of iron(II) complex compounds exhibiting Spin crossover properties. One of these classes of compounds includes mononuclear complexes of the type $[Fe(TRIM)_2]X(X_2)$, where X- is a mono- or bivalent anion, and TRIM – is a tridentate ligand with a set of donor atoms consisting of three nitrogen atoms. These compounds have similar composition, the difference being only the anions in the outer sphere. At the same time, it has been shown that the Spin crossover properties in this series of compounds differ greatly so that the transition temperature varies from 50 K to 400 K. Characterization of the Mossbauer properties, X-ray analysis data as well as other analysis methods led to the conclusion that the variety of transition temperatures for these compounds is caused by the nature of the counterion. The inductive effect of the anion is transmitted through the hydrogen bonds, thus changing the electron density on the coordinated nitrogen atoms and implicitly the Spin crossover properties of the compound. This class of compounds is an eloquent example of how supramolecular bonds can influence the basic properties of coordination compounds. Another direction of research consisted in obtaining complex combinations of iron(II) with Schiff base ligands that have an asymmetric structure. As a result of this study it was shown that, unlike compounds with symmetric ligands, which have a stable spin state either SI or SJ, compounds

containing asymmetric ligands exhibit spin crossover properties in a wide temperature range depending on the ligand structure.

- ***Institute of Applied Physics of the Academy of Sciences of the Republic of Moldova***: Research in the field of single crystal X-ray analysis methods. The structure of a large number of organic compounds, complex and supramolecular compounds was studied, which, in addition to highlighting the structure-property correlation, contributed to the development of experimental methods of X-ray analysis and modelling and interpretation of crystal structures. For this series of works, he received the *Award of the Academy of Sciences of the Republic of Moldova in 2003.*

- ***Institute of Chemistry of the Academy of Sciences of the Republic of Moldova***: The research was carried out with the aim of synthesizing new iron compounds with polydentate ligands containing carboxylic groups and Schiff bases. A separate study was the synthesis of a large number of homo- and hetero-trinuclear iron compounds of the μ_3-Oxo type. The X-ray study of these compounds in combination with the study of some physical properties, such as the temperature dependence of the Mossbauer spectra and the magnetic susceptibility led not only to the establishment of the structures in the solid state, but also to the localization, in some cases, of the hetero position -atom in the trinuclear μ_3-Oxo fragment. In this context, it is worth mentioning the publication of the results regarding the synthesis and crystal structure of the first poly-heteronuclear iron carboxylate containing a 4f metal that is Eu. Also, the study of iron compounds with Schiff base ligands demonstrated that some of them exhibit pronounced biological properties, a fact confirmed by the development of some invention patents.

- ***Laboratory of Inorganic Polymers within the "Petru Poni" Institute of Macromolecular Chemistry*** – The scientific research within the ICMPP was generally focused on achieving the objectives of four projects: "*Synthesis and study of polymeric metallosiloxanes - new materials of interest for catalysis and nanosciences*" (POLISILMET), CCE POS Project: ID 570; "*New coordination networks containing polyfunctional flexible bridges*" PN-II-ID-PCE-2012-4, "*Coordinating compounds of transition elements based on flexible polydentate ligands as biologically active agents and precursors for oxide material*", PN-II-CT-RO-MD-2012-1 and "*Coordinative compounds of some 3D metals with Schiff bases containing siloxane or silane units*". The research activity within the POLISILMET project was focused on obtaining for the first time and studying new mono- and polynuclear coordination compounds based on ligands containing silane and siloxane segments. One of the basic steps of this study consisted in the design and

synthesis of new polydentate ligands of the polycarboxylic acid or Schiff base type starting from the known diamines containing the siloxane fragment. Another important objective of this project was the development of synthesis methods, the isolation in a chemically pure state and the characterization of complex compounds based on these ligands. In order to achieve this objective, several specific analysis methods for complex combinations, less known in the Institute, were implemented in the *Inorganic Polymers Laboratory*. One of the basic methods developed in the laboratory was the single crystal X-ray analysis method. By purchasing a diffractometer the members of the laboratory studied both the techniques for obtaining single crystals and the basic notions of the X-ray analysis method on single crystals. Consequently, the X-ray study has become a highly requested method not only in the Inorganic Polymers laboratory but also in other collectives of the institute. This method is increasingly used for the interpretation of physico-chemical properties but also for establishing the structure-property correlation. Other methods of characterizing complex compounds: magnetic susceptibility and its temperature dependence, Mossbauer spectroscopy for iron compounds, RES, catalytic properties were carried out through the prism of new collaborations between the "Petru Poni" Institute and other research centers such as: University of Vienna, Institute of Chemistry of the Academy of Sciences of the Republic of Moldova, Laboratoire National des Champs Magnétiques Intenses CNRSUPR Grenoble, University of Poznan, Poland and University of Leuven, Belgium.

The visibility of Sergiu Shova research and his contribution to the approached fields is reflected by the Hirsch factor *33* (web of knowledge) and over **6000** citations (*over 5000 excluding self-citation*). The scientific results in these fields have materialized through: over *470* scientific papers, and *10* patents. He participated in the development of ***over*** 20 projects as project director or team member. Also, he trained and mentored students with different research backgrounds.

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ResearcherID: AAS-6207-2021; https://publons.com/researcher/4543618/sergiu-shova

Dr. Mihaela Dascalu - Scientific Researcher (CSIII), Team Member 3

Dascălu Mihaela, scientific researcher (degree III) within the "Petru Poni" Institute of Macromolecular Chemistry (ICMPP), Iași, attended the courses of the Faculty of Chemistry, University "Al.I. Cuza", Iași, Chemistry-Physics section, completed with the license exam. The bachelor's thesis entitled "*Nitroderivatives*", was developed under the coordination of Prof. I. Druță in the Department of Organic

Chemistry. Between October 2005 - June 2007, she attended the master's courses, in the field of "Chemistry and biochemistry of heterocyclic compounds", Faculty of Chemistry, University "Al.I. Cuza", Iasi, completed with the defense of the dissertation thesis "*Phenothiazine derivatives with antibacterial action*" developed under the coordination of Prof. Dr. E. Bicu. Starting with April 1, 2006, she was employed as research assistant at ICMPP. In November 2006, she was admitted to doctoral studies at ICMPP, under the guidance of Acad. B.C. Simionescu. She defended her doctoral thesis entitled: "*Crosslinked siloxane-organic and siloxane-inorganic structures obtained by the sol-gel technique*", in December 2010. Later, she acquired the position of scientific researcher (2011-2018) and scientific researcher grade III (2018-present).

Dascălu Mihaela career can be organized in three main research domains: - ***siloxane organic and siloxane-inorganic crosslinked structures obtained by sol-gel technique***; - ***silicon-containing organometallic/coordination compounds***; and - ***dielectric elastomers***. During the PhD program she developed ***siloxane organic and siloxane-inorganic crosslinked structures obtained by sol-gel technique***. The work consisted in the synthesis and characterization of new ***polydiorganosiloxanes-silica***, ***polydimethylsiloxane (PDMS)-silica-titania*** or ***PDMS-silica-pyrite composites***, prepared by sol-gel technique in the absence of solvents using newly developed high molecular weight polysiloxanes with various functionalities. The obtained materials demonstrated exceptional properties as sensing elements in actuators devices. Other materials with special properties have also been developed by the same technique, as for example amphiphilic co-networks that were exploited as moisture sensors or siloxane-urethane hybrid structures as shape memory materials. In the field of silicon-containing organometallic compounds, new troticene siloxane compounds were prepared for the first time, within a collaborative research between ICMPP and IAAC - T.U. Braunschweig, Germany. For the design of a series of *new organometallic monomers and polymers* derived from *ferrocenediisocyanate* new *poly(siloxane-urethane) crosslinked structures* were obtained and investigated as electrochemical sensors. Dascălu Mihaela participated in a project within the European Social Fund for Regional Development, Competitiveness Operational Programme Axis 1 (*Synthesis and study of the polymeric metallosiloxanes - new materials for catalysis and nanosciences*) wherein a new research field - *siloxane-based metal complexes* - was developed. Despite the flexibility of siloxane segments that prevented the organization in crystalline state, siloxane-based metal complexes were prepared and isolated in single crystal form. After a 2 years break for maternity leave (2016-2018), she started working in parallel in the elucidation on crystal structures using single crystal XRD technique, mastering the technique of working and data processing (> 20

articles). In the last 12 years, Dascălu Mihaela was involved in the development of dielectric elastomers for energy conversion. New silicone materials with enhanced electro-mechanical properties were developed by chemical modification of the polysiloxanes with polar groups (> 10 articles) or addition of high permittivity fillers (> 10 articles). Furthermore, the protocols were upscaled and large quantities of good quality films were successfully obtained for tests and optimization of mechanical and electrical properties.

Dascălu Mihaela had a one year postdoc fellowship (2013-2014) at EMPA Dübendorf, Switzerland, within Sciex program, specializing in design of silicone materials in different formulations and new insight in synthesis of silver nanoparticles (NPs) with precisely tailored size and shape as high permittivity fillers. The collaboration continued further by publishing papers, on conductive silicone elastomers electrodes processable by screen printing and stretchable piezoelectric elastic composites for sensors and energy generators. Receiving financial support from different sources Dascalu Mihaela carried out several research internships at - *IAAC - T.U. Braunschweig, Germany (2012, 2013)*, in the laboratory of Prof. M. Tamm (*organo-metallic compounds containing siloxane units*), - *EMPA,* Dübendorf, Switzerland (*2012*) in the group of Dr. D. Opris (COST STSM (Short Term Scientific Mission) project, *new siloxane matrices for dielectric elastomers*), - *Institute of Chemistry of the Academy of Sciences of Moldova* in the group of Prof. C. Turtă (*2013*) (Romania-Republic of Moldova bilateral cooperation program, *organic or siloxane Schiff base ligands and their complexes*); - *Institute of Polymers, Bratislava, Slovakia* (*2015*) (Inter-academic exchanges between the Romanian Academy and the Slovak Academy of Sciences, *preparation and advanced characterization of new composite materials*), - *SRL POLIVALENT-95* in Chisinau, Republic of Moldova (*2019, 2020*) (H2020-MSCA-RISE-2016 project, SPINSWITCH No 734322, *synthesis of new complexes of Fe(II) with polydentate ligands*).

The visibility of Dascalu Mihaela research and her contribution to the approached fields is reflected by the Hirsch factor ***18*** (web of knowledge), 20 (Google Scholar) 19 (Scopus) and **868** citations (**748** *excluding self-citation*) with an average of *11.89* citations per publication (*excluding self-citation*). The scientific results in these fields have materialized through: *73* scientific papers, *3* book chapter, *19* conference proceedings and conference presentations (*49* Talks & *41* Posters) and *2* national patents submitted. Dascalu Mihaela participated in the development of ***23*** numerous project proposals as team member *(4 international projects, 19 national projects).* During the entire research period, she carried out team research actions, coordination of scientific works, publication/communication and representation of the group she belong to. In 2014, she received the "Cristofor I. Simionescu" Award of the Romanian Academy

for the works with the theme "*New compounds and materials developed by involving the siloxane segment*". In November 2007, she received 2nd award "Young researchers" for presentation "*Multifunctional nanostructured silicon materials*" at 11th National Symposium New Materials, Micro and Nanotechnologies, MATNANTECH-CEEX, Sinaia, Romania.

Please visit the profiles: https://www.brainmap.ro/mihaela-dascalu; https://scholar.google.com/citations?hl=en&pli=1&user=gN6yd5gAAAAJ; https://orcid.org/0000-0002-0278-8124; https://www.webofscience.com/wos/author/record/HGA-1682-2022

Her main research interest focused on: synthesis of siloxane monomers and oligomers; chemical modification of siloxane oligomers; Schiff bases metal complexes containing siloxane units; development of multi-stimuli sensitive silicon materials for various applications in sensing, energy harvesting, stretchable electronics and actuation.

Dr. Mirela-Fernanda Zaltariov – Young Researcher (CSIII), Team Member 4

She was born on 1 July 1981 in Tecuci, Galati, Romania. She attended the Faculty of Medical Bioengineering at "Gr. T. Popa" University of Medicine and Pharmacy, Iasi, Romania, Specialization: Biomaterials and Prosthetic Technology, being ranked first in the year (2000-2006). In 2007 she obtained her Master's degree -Section "Natural Products", "Ghe. Asachi" Technical University, Iasi, Romania. In 2014 she defended her doctoral thesis in the field of Chemistry, *Summa cum laude,* PhD thesis: "*Metallic complexes, coordination polymers and networks based on siloxane and silane ligands*", Romanian Academy, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, PhD Coordinator: Dr. Maria Cazacu. She has also attended postgraduate courses "*In vivo/ in vitro* evaluation for regenerative medicine" at Faculty of Medical Bioengineering at "Gr. T. Popa" University of Medicine and Pharmacy, Iasi, Romania.

She has accumulated experience in the research field of coordination chemistry, silicone chemistry and macromolecular chemistry. The main research field was focused on metal complexes and coordination polymers or metal-organic frameworks (MOFs) designed for various applications: catalysis, magnetism, luminescence, antitumoral agents, antimicrobial and antifungal compounds, self-assembly in micelles and vesicles. She demonstrated a high level of knowledge and work experience in the synthesis and structural characterization of MOFs and different polymeric matrices, as well as in the analysis of the structure-property relationships and of the responsive behavior

arising from MOFs - guest interactions. The scientific novelty in addressing these activities have resulted in a large number of compounds (more than 30) registered in the CCDC database (www.ccdc.cam.ac.uk/conts/retrieving.html) during 2016-2023, a number of 72 scientific ISI Articles, 4 book Chapters and 2 national Patents (OSIM). Also, she was involved in 11 research projects as a team member and Project leader (New scaffolds for extension of structure-activity relationship studies of metal-based anticancer drugs - PN-III-P1-1.1-PD-2016-1027, (2018-2020)) that have dealt mainly with the synthesis, structural characterization and evaluation of the antiproliferative activity of new organometallic complexes to establish their ability to inhibit enzymes considered targets in anticancer chemotherapy. She also extended new research directions in the field of mucoadhesive materials for biomedical applications: matrices and self-assembled structures based on biopolymers for the encapsulation of some biological molecules.

The most representative achievement of these research activities consisted on the preparation of metal complexes and coordination polymers or MOFs having highly flexible and hidrophobic siloxane/trimethylsilyl units in the structure (https://doi.org/10.1016/bs.adioch.2020.03.003), isolated as single-crystals and characterized by X-Ray diffraction analysis, which were tested as heterogenous catalysts in alkaline decomposition of hydrogen peroxide and in photodecomposition of azodyes (Congo Red https://doi.org/10.1016/j.apcatb.2016.12.034) and some drugs (Doxorubicin https://doi.org/10.1007/s11356-019-05288-7) under sunlight, in ambient conditions, or as homogenous precursor catalysts in electrochemical reduction of protons (for hydrogen production), microwave-assisted solvent-free oxidation of cyclohexane to cyclohexanol and cyclohexanone, through a radical mechanism, with high selectivity and in a yield that is about ten times higher than that of the current industrial process (https://doi.org/10.1002/ejic.201700875). Within these research directions, an important achievement was the first reported 1D coordination polymer where a siloxane-based linker was able to isolate efficiently the single-magnet molecules (SMMs) consisting of hexanuclear manganese(III) salicylaldoximate, as secondary building units (SBUs) (https://doi.org/10.1021/acs.macromol.6b01149). A series of research activities, that consisted in the development of a library of ligands and the corresponding copper(II) complexes, as a new class of ribonucleotid reductase inhinitors – an enzyme involved in the DNA replication and repair, were carried out in collaboration with prestigious research centers of advanced anti-tumor action (https://doi.org/10.1021/acs.inorgchem.6b03178). To avoid their non-selective uptake of the prepared anticancer agents by both, normal and tumor cells, as well as the development of multidrug

resistance, several contributions in the development of new self-assembled, biocompatible, she developed bio/mucoadhesive and biodegradable formulations in order to improve the drug solubility, the controlled distribution, the prolonged and sustained release ability, highlighting the future developments of such assemblies as a next generation of therapeutic agents (https://doi.org/10.1016/j.surfin.2022.102168; https://doi.org/10.1016/j.reactfunctpolym.2022.105419).

She received financial support for a 3-month research internship at SRL POLIVALENT-95 Chisinau, funded by the project H2020-MSCA-RISE-2016, SPINSWITCH No 734322 and for two short research internships at University of Vienna, the Institute of Inorganic Chemistry.

Also, she attended 95 participations at International and National Conferences and Workshops in the field of chemistry. She was awarded with "Gheorghe Spacu" Academy Award - Group of works: "Ligands and coordinating polymers with siloxane units" as recognition to contributions to chemistry research.

Also, she supervised students from "Al. I. Cuza" University – Faculty of Chemistry during the practical research activities in the institute and PhD Students, as a member in the PhD thesis supervison commitee. She was member in the Conference commitee: https://www.icmpp.ro/macroiasi2023; https://festivalul-de-chimie-acs.ro/; https://ibn.idsi.md/sites/default/files/imag_file/ZAI_2017_0.pdf; https://icmpp.ro/events/conferences/roicac2016/First%20Call%20RO'ICAC'2016.pdf. She established research collaborations with complementary research groups from Romania, Austria, Portugal, Spain, Norway, Slovakia, France and Rep. Moldova materialized in joint scientific publications, research internships and collaborative projects.

Currently, she is Scientific Researcher III at "Petru Poni" Institute of Macromolecular Chemistry, Department of Inorganic Polymers, member of *NewSmartSil* group, with expertise in the field of chemistry, polymer chemistry/inorganic chemistry, specialist in synthesis and characterization of MOFs, coordination polymers and supramolecular structures, functionalized siloxane/silane derivatives, spin crossover complexes, metal complexes and ligands with antimicrobial and anticancer activity, pharmaceutical formulations based on mucoadhesive polymers, biomaterials for controlled drug delivery systems, crystallization techniques, catalysis, etc.

In the last five years, she published 42 ISI articles, 33 articles being in the Q1/Q2 area, the latest achievements in the filed: https://doi.org/10.3390/ijms241914687;

https://doi.org/10.1016/j.ijbiomac.2023.127571; https://doi.org/10.1016/j.surfin.2022.102168; https://doi.org/10.3390/gels8080519; https://doi.org/10.3390/molecules26185626; https://doi.org/10.3390/pharmaceutics14122838; https://doi.org/10.1007/s11356-019-05288-7.

The scientific papers have accumulated a number of 707 citations, some of the research papers being cited by the prestigious journals: J. Med. Chem, Coord. Chem. Rev., Chem. Eng. J., Inorg. Chem., Polym. Chem., etc.

The H-index of the author is 17.

The scientific profile can be accessed at:

https://www.brainmap.ro/public-profile-82821159;

https://orcid.org/0000-0001-6692-0481;

https://www.scopus.com/authid/detail.uri?authorId=5533263720;

https://scholar.google.com/citations?hl=en&user=mIfh6zEAAAAJ.

Dr. Codrin Tugui – Young Researcher (CS), Team Member 5

Throughout my research endeavors, I dedicated my efforts to a range of projects aimed at advancing the capabilities of silicone elastomers in diverse dielectric elastomer applications. Over the years, I actively engaged in numerous research initiatives focused primarily on synthesizing silicone elastomers and compliant electrodes for electromechanical transducers. These projects encompassed the evaluation of materials for various applications including actuators, sensors, and energy harvesting devices. My involvement in multidisciplinary teams underscores my commitment to generating innovative scientific insights with substantial commercial viability

From 2013 to 2017, I embarked on my doctoral journey at the Petru Poni Institute of Macromolecular Chemistry, exploring the realm of silicones under the guidance of Dr. Maria Cazacu, one of the top researchers in Romania in this field. Throughout my doctoral tenure, my research was dedicated to identifying suitable partners, both inorganic and organic networks, and modifying or combining them with siloxane networks to create novel dielectric elastomers with enhanced electromechanical properties. The aim was to surpass the limitations of existing materials. Over the course of my doctoral studies, I engineered a series of dielectric elastomers and compliant electrodes that garnered significant interest for practical applications. (**C. Tugui, M. Cazacu, L. Sacarescu, A. Bele, G. Stiubianu, C. Ursu, C. Racles, Full silicone interpenetrating bi-networks with different organic groups attached to the silicon atoms, Polymer, 2015; 77: 312; C. Tugui,**

S. Vald, M. Iacob, C.D. Varganici, L. Pricop, M. Cazacu, Interpenetrating poly(urethane-urea)–polydimethylsiloxane networks designed as active elements in electromechanical transducers, Polymer Chemistry, 2016; 7(15): 2709; C. Tugui, A. Bele, V. Tiron, E. Hamciuc, C.D. Varganici, M. Cazacu, Dielectric elastomers with dual piezo-electrostatic response optimized through chemical design for electromechanical transducers, Journal of Materials Chemistry C, 2017; 5(4): 824). In addition to these endeavors, I actively contributed to experimental and dissemination efforts in various research projects focused on enhancing the dielectric permittivity of silicones. (**M. Iacob, G. Stiubianu, C. Tugui, L. Ursu, M. Ignat, C. Turta, M. Cazacu, Goethite nanorods as a cheap and effective filler for siloxane nanocomposite elastomers, RSC Advances, 2015; 5(56): 45439; C. Racles, V.E. Musteata, A. Bele, M. Dascalu, C. Tugui, L. Matricala, Highly stretchable composites from PDMS and polyazomethine fine particles, RSC Advances, 2015; 5(124): 102599; G. Stiubianu, A. Soroceanu, C.D. Varganici, C. Tugui, M. Cazacu, Dielectric elastomers based on silicones filled with transitional metal complexes, Composites Part B: Engineering, 2016; 93: 236**)

I played a key role in two projects centered on developing dielectric elastomer transducers for energy harvesting applications: "**New mechanisms and concepts for exploiting electroactive Polymers for Wave Energy Conversion**" and "**Energy harvesting structures optimized through green silicone chemistry**". Our research demonstrated that with the precise design of conversion elements, high conversion efficiencies could be achieved, rendering this technology highly reliable for widespread implementation. (**C. Tugui, C. Ursu, L. Sacarescu, M. Asandulesa, G. Stoian, G. Ababei, M. Cazacu, Stretchable Energy Harvesting Devices: Attempts To Produce High Performance Electrodes, ACS Sustainable Chemistry & Engineering, 2017; 5(9): 7851**)

I designed and constructed custom laboratory equipment to assess electrical breakdown, actuation strain, and energy harvesting efficiency. Following the completion of my PhD thesis, I enhanced this laboratory setup to include capabilities for capacitive sensing measurements and breakdown voltage tests under varying temperature conditions.

In 2018, I initiated a scientific partnership with Prof. Manole S. Serbulea from the Technical University of Civil Engineering Bucharest. Our collaboration focused on leveraging these electromechanical transducers within Civil Engineering contexts. Specifically, we explored their application as sensors for monitoring structural element strain during seismic events and as vibration dampers to mitigate earthquake-induced motion in building structures. (**C. Tugui, M.S. Serbulea,**

M. Cazacu, Preparation and characterisation of stacked planar actuators, Chemical Engineering Journal, 2019; 364: 217)

In 2019, I obtained a two-year postdoctoral project funded by UEFISCDI, with a focus on developing dielectric elastomers capable of responding to various stimuli, titled "**Multi-stimuli responsive silicone composites for switchable dual-function transducers**". The practical outcomes of this endeavor materialized in a patented application on thermochromic composites based on polysiloxanes and spin crossover complexes that can be used in soft electronics, sensors, or multi-functional dielectric electromechanical transducers. (**C. Tugui, Thermochromic silicone composites and the process for obtaining them; OSIM Romania, application number 6448 / 2022**).

As the principal investigator in a research project focused on utilizing silicone polymers for 3D printing, titled "**Soft Electromechanical Transducers Based on 3D Printed Silicones**", I initiated a collaboration with Unda Tech Company, led by Alin Stefan. The results obtained have been submitted for patenting, and the collaboration with Unda Tech is ongoing toward bringing this technology to the market. (**C. Tugui, A. Stefan, M.S. Serbulea, M. Cazacu, Silicone Materials and 3D Printing Machine, OSIM Romania, application number 1608 / 2022**).

In my role at Petru Poni, I witnessed the strength of a diverse team in tackling expansive challenges, gaining insights from various perspectives, and generating creative solutions. Throughout my research career, I have undertaken five short-term research stages, including: H2020 Marie Skłodowska-Curie program at Taras Shevchenko National University of Kyiv in Ukraine (2020); 3rd Autumn School on Physics of Advanced Materials in Greece (2019); Research Mobility Fellowship at the Polymer Institute SAS in Bratislava, Slovakia (2019); Participation in the European Network on Smart Inorganic Polymers Training School, held in Austria and Italy (2014); and the European Scientific Network for Artificial Muscle Training School on Dielectric Elastomers, held in Germany (2014).

I have engaged in various professional activities, including serving as a Member of the Dissemination & Outreach Committee of the European Society for Electromechanically Active Polymer Transducers & Artificial Muscles. Additionally, I have served as an active member of the society since 2016. Furthermore, I have served as a Guest Associate Editor at Frontiers in Robotics and AI and have acted as an External Reviewer for various journals (e.g. ACS Applied Materials and Interfaces, Journal of Materials Chemistry C).

In 2021, I was honored to receive The Romanian Academy Prize for Chemistry, "C. D. Nenitescu," in recognition of my work on "**Silicone Polymers Designed for Dielectric Elastomer Transducers**". In 2023, I was awarded a postdoctoral fellowship at the University of Connecticut, where I continue my research activities in the field of silicone elastomers for soft robotics.

https://www.brainmap.ro/codrin-tugui

Dr. George-Theodor Știubianu – Research Assistant (AC), Team Member 6

I have extensive experience working in multidisciplinary teams focused on achieving new scientific knowledge with significant potential for commercial application. I was a key member of four international projects (1. Synthesis and study of the polymeric metallosiloxanes - new materials for catalysis and nanosciences, www.polisilmet.ro; 2. New mechanisms and concepts for exploiting electroactive Polymers for Wave Energy Conversion (www.polywec.org), a FET-Energy project partially funded by the 7th Framework Programme of European Community; 3. Thermocomfort Cloth Inspired by Squid Skin, a project financed by grants from U.S. Advanced Research Projects Agency–Energy (cooperative agreement DE-AR0000534, in the frame of the call Delivering Efficient Local Thermal Amenities (DELTA); 4. WeArAble - Soft wearables with high energy density: merging chemical biology and silicone chemistry with compliant active devices, as part of "Challenge Programme 2022 - Energy materials with biological applications"). These research projects have constituted excellent opportunities to accumulate experience in the field of silicone-based dielectric elastomers and materials for modulation of electromagnetic radiation in the visible and infrared wavelength range.

My first patent (Maria Cazacu, George Stiubianu, Procedure for obtaining a silicone rubber with room temperature vulcanization using lignin as filler material. Patent No 126477, Buletinul Oficial De Proprietate Industriala – Secțiunea Invenții nr. 3/2013) focuses on the preparation of new materials combining synthetic silicones and lignin (a natural polyphenol extracted from trees) was based on the results of my PhD studies, and it was the result of extensive studies of surface engineering and chemistry of such composite materials with applications in construction adhesives/fillers for building remediation after earthquakes. Also, the results of my PhD studies in developing new materials with silicones and natural polymers such as cellulose and ligning were presented in a book chapter (Stiubianu, G. New Materials Developed with Lignocellulose and Siloxane Derivatives, in: Cazacu, M., Ed., Recent Developments in Silicone-Based Materials, Nova Science Publishers: Hauppauge, New York, 2010).

As an active member in the research project PolyWEC - New mechanisms and concepts for exploiting electroactive Polymers for Wave Energy Conversion (www.polywec.org), a FET-Energy project that was partially funded by the 7th Framework Programme of European Community, I prepared new dielectric elastomers (DE) for wave energy harvesting and studied their aging and degradation in simulated conditions of harsh marine environments (Bele, A.; Stiubianu, G.; Vlad, S.; Tugui, C.; Varganici, C.-D.; Matricala, A.-L.; Cazacu, M. Aging behavior of the silicone dielectric elastomers in simulated marine environment, RSC Adv., 2016, 6(11), 8941- 8955 (impact factor 3.049) (Q2)). The electroactive elastomers were kept for up to one year in a simulated marine environment for accelerated aging. The analysis of the samples showed no changes in the structure of the nanocomposites prepared with silicone polymers and ceramic nanoparticles, while also preserving the excellent mechanical tensile and fatigue strength and the dielectric properties, making it suitable for construction of sea wave energy harvesting units. The analysis of thermal properties by Differential Scanning Calorimetry and the analysis of the crystalline structure by Wide Angle X-ray Diffraction, as well as mechanical and dielectric properties showed the silicone materials did not present changes of structural and mechanical and dielectric properties, even after one year of simulated marine conditions, justifying the research to optimize the chemical structure and the dielectric properties of this class of materials for actuators and energy harvesting. Also, on the duration of PolyWEC project I tested multiple types of polymers starting from silicone chemistry for the main chain, and a wide range of nanoparticle fillers: ceranic materials, iron oxides nanoparticles, transitional metal complexes. For these new materials in the form of thin films I tested their nanoscale morphology and the mechanical and electrical actuation properties. The results of this research are presented in multiple peer reviewed journals papers, with the following being just representative examples: Stiubianu, G.; Soroceanu, A.; Varganici, C.-D.; Tugui, C.; Cazacu, M. Dielectric elastomers based on silicones filled with transitional metal complexes, Composites Part B 2016, 93, 236-243 (impact factor 6.864) (Q1), Stiubianu, G.; Bele, A.; Cazacu, M.; Racles, C.; Vlad, S.; Ignat, M. Dielectric silicone elastomers with mixed ceramic nanoparticles, Mater. Res. Bull. 2015, 71, 67-74 (impact factor 3.355) (Q2), Bele, A.; Stiubianu, G.; *et al.* Ceramic nanotubes-based elastomer composites for applications in electromechanical transducers, *Mater. Des.* Mar 2018, 120-131, Bele, A.; Stiubianu, G.; *et al.* Silicone dielectric elastomers based on radical crosslinked high molecular weight polydimethylsiloxane co-filled with silica and barium titanate, *J. Mater. Sci.*, Oct 2015, 50(20), 6822-6832, Bele, A.; Stiubianu, G.; *et al.* Tuning the Electromechanical Properties of Silicones by Crosslinking Agent, *Adv. Eng. Mater.*, Sep 2015, 17(9), 1302-1312. I have studied the

effect of the crosslinker and the silicone backbone length on the properties of the elastomer. These studies have demonstrated it is possible to tune the mechanical and electrical properties of the elastomer through variation of the polymer chain length, the side functional groups of the polymer and the crosslinker agent, representing a starting point for synthesis of silicone polymers with custom properties.

I won a competition for postdoctoral researcher position at University of California, Irvine. My postdoctoral studies were focused on preparation of new materials based on dielectric elastomers for thermal comfort clothing, and the results were presented in the project Thermocomfort Cloth Inspired by Squid Skin financed by grants from U.S. Advanced Research Projects Agency–Energy (cooperative agreement DEAR0000534), project webpage: https://arpa-e.energy.gov/?q=slick-sheet-project/thermocomfort-cloth. The results of the project: -one ISI peer-reviewed article: Leung, E. M.; Escobar, M. C.; Stiubianu, G.; Jim S. R.; Vyatskikh, A. L.; Feng, Z.; Garner, N.; Patel, P.; Naughton, K. L.; Follador, M.; Karshalev, E.; Trexler, M. D.; Gorodetsky, A. A. A Dynamic Thermoregulatory Material Inspired by Squid Skin, Nat. Commun., 2019, 10, 1947, 10 pp. (impact factor 11.88) (Q1) ; -one international patent: Alon A. Gorodetsky, Steven Jim, George Stiubianu, Erica Leung, Kyle Naughton, Priyam Patel, Maurizio Follador, Emil Karshalev, "Composite Materials with Adjustable Spectral Properties", US 2022/0003353 A1, Pub. Date: Jan 6, 2022. As key member in this project that drew inspiration from the design of the space blanket and from the dynamic color-changing ability of squid skin for developing composite materials with application in clothing with the capability to dynamically control the flux of thermal radiation where the hydrophobic and thermoplastic nature of the elastomer silicones confers resistance to humidity. Thus I developed nanocomposite materials with dynamically tunable thermal infrared properties that regulate a heat flux of >36 W/m^2 with a transient mechanical power input of only ~3 W/m^2. Thus, when integrated into clothing it can manage ~70 % of the metabolic heat flux expected for an individual. Due to such functionality such materials hold the potential to reduce global energy consumption by >3 % by increasing the thermal envelope of cooling and heating in both residential and commercial buildings. I participated in the fabrication of the composite materials including silicone polymers and copolymers by electron beam vapor deposition and polymer spincoating, performed mechanical characterization, spectroscopic measurements, carried out human subject testing studies, and actively participated in discussing the results for the manuscript.

Also, I participated in the development of a new type of adaptive infrared-reflecting platforms featuring simple electrical actuation mechanism, capability of working at low temperatures, tunable spectral range in the visible and infrared wavelength range, milliseconds time of response, capability to withstand to repeated cycling. Also the platform is perfectly amenable for patterning and multiplexing, has in built sensors autonomous operation. I prepared nanocomposites by spincoating silicone thermoplastic elastomers on nanostructured metal layer, performed infrared spectroscopy measurements and performed the interpretation of the spectroscopic measurements. Such devices could maintain their characteristics for a large number of cycles of actuation (>10000 cycles). Also, the devices are capable of autonomous operation, can be patterned and multiplexed, and have robust mechanical properties (information available in: - ISI peer-reviewed article: Chengyi, X.; Stiubianu, G.; Gorodetsky, A. A. Adaptive infrared-reflecting systems inspired by cephalopods, Science 2018, 359(6383), 1495-1500 (impact factor 41.04) (Q1)); - international patent: Alon A. Gorodetsky, Chengyi Xu, George Stiubianu, "Adaptive Materials and Systems for Manipulation of Electromagnetic Radiation", Patent Application US 2021/0063612 A1, Pub. Date: March 4, 2021).

As key member of the ongoing research project WeArAble - Soft wearables with high energy density: merging chemical biology and silicone chemistry with compliant active devices, as part of "Challenge Programme 2022 - Energy materials with biological applications", financed by grants from Novo Nordisk Fonden at Danish Polymer Center at Technical University of Denmark, in a multidisciplinary team with expertise in biology, cell culture, physics, mechanical and electrical engineering, I participate in the synthesis of new polysilicones with strained ring structure, useful in the preparation of new silicone-based elastomers which have the capability to actuate under an electric field, providing mechanical force and working as actuator/artificial muscle.

Scientific research output

Author and co-author of **38 ISI articles**, **2 book chapters**, **3** articles in proceedings, **4** patent applications, **30** posters, **26** oral communications, 1 silver medal at international conference INVENTICA, member in **15 research national/international grants** and DIRECTOR for 1 national grant (Contract type „PED", PN-III-P2-2.1-PED-2019-1885, „Dynamic Dual Mode Materials for Human Thermal Comfort, Materiale Dinamice Duale pentru Confort Termic Uman, DYMATCO), 1086 citations (HI = 19).

Visibility

https://www.brainmap.ro/george-stiubianu; https://orcid.org/0000-0002-8439-7089
https://www.webofscience.com/wos/author/record/AAB-7450-2019
https://scholar.google.com/citations?hl=en&user=pFVW3csAAAAJ&view_op=list_works&sortby=pubdate

Dr. Alexandra Bargan - Research Assistant (AC), Team Member 7

She was born on 16 august 1980, in Dorohoi city, Botosani County, Romania. Bargan Alexandra attended the courses at Faculty of Chemistry, of the "Alexandru Ioan Cuza" University, Iasi (2002). In the following two years, she obtained the diploma of postgraduate studies in informatics (2004), at the Faculty of Informatics of the "Alexandru Ioan Cuza" University, Iasi, and the master's degree (2004) in: "Non-Polluting Process Engineering", from Faculty of Chemical Engineering and Environmental Protection, of "Gheorghe Asachi" Technical University, Iasi. In 2010, she defended her thesis in Chemical Engineering: "Artificial intelligence tools used in the modeling and optimization of siloxane chemistry processes", scientific coordinator: Prof.Univ.Dr.Ing. Curteanu Silvia. In 2006, she was employed as research assistant at "Petru Poni" Institute of Macromolecular Chemistry, Iasi.

Her research activity was focused on synthesis and characterization of new silicon compounds; functionalized silica nanostructures; silsesquioxanes, new zwitterionic siloxane compounds with interesting properties, new Schiff Bases starting from silatranes with specific behavior in solution/wet environment having biological activity, metal-organic frameworks with catalytic activity, biopolymer nanocomposites with antibacterial activity, cellulose-siloxane hybrid materials. Her research activity was focused on development of modeling and optimization strategies based on neural models, genetic algorithms and fuzzy logic for synthesis and characterization of new silicon compounds and functionalized silica nanostructures. She applied the artificial intelligence tools for modeling and optimization of different processes from silicone chemistry and environmental protection (as part of her Ph. D. Thesis and not only). The novelty of her work was the application of neural networks for optimizing the synthesis processes by inverse neural network modeling. From pre-established desired properties for the materials, the best–appropriate starting reaction conditions can be chosen. Alexandra has experience in materials characterization using different methods (like: infrared spectroscopy, proton/carbon nuclear magnetic resonance, single crystal X-ray diffraction, thermogravimetric measurements, X-ray fluorescence, dynamic vapour sorption, surface

tension measurements, scanning electron microscopy, atomic force microscopy, dynamic light scattering, nitrogen sorption and permeability measurements).

Over the years, she was interested to specialize and qualify herself, participating to different courses: „Physics of Advanced Materials Winter School", Thessaloniki, Greece-2008; "The CAMD Summer School - Electronic Structure Theory and Materials Design" Lyngby - Copenhaga, Danemarca, in 2008; research stage on using the X-ray Spectrometer X-Calibur SDD, for analyzing the materials-2011; two research stages on Single Crystal X-ray Diffraction at ICT, Germany, March-2012, February-2013 within the project STREAM- contract nr. 264115- European Union's Seventh Framework Programme (FP7/2007–2013); a specialization course in „How to write a successful Horizont 2020 project", Iasi-2016; two research stages on synthesis and advanced characterization of new ligands, Fe(II) and Fe(III) complexes with spin crossover properties, at SRL Polivalent-95, Chisinau, Moldova, 2019, 2020 within project "Multifunctional Spin Crossover Materials" H2020-MSCA-RISE-2016, SPINSWITCH, No 734322/ (S Shova).

The results of her scientific work were disseminated in journals as: Journal of Molecular Liquids, Materiale Plastice, Revue Roumaine de Chimie, Journal of Chemical Physics, Journal of Polymer Science Part A: Polymer Chemistry, Journal of Composite Materials, Cellulose Chemistry and Technology, Textile Research Journal, Polymer International, Polyhedron, Journal of Organometallic Chemistry, Applied Catalysis B: Enviromental, Materials, Arabian Journal of Chemistry, Polymer Testing, Polymers (as main author/co-author).

Author and co-author of **74 ISI articles** (**36** in Q1 zone and **20** in Q2 zone), **4 book chapters**, **6** proceedings, **2** patent applications, **50** posters, **30** oral communications, special prize, 2 gold and 1 silver medals at international conference INVENTICA, member in **20 research national/international grants** and **Project Leader** for 1 national grant (Contract type „PED", PN-III-P2-2.1-PED-2021-3900, „Intelligent tools for design, processing and optimization of new PS-POSS-IL (polysulfone-silsesquioxanes impregnated with ionic liquids) type membranes applied in CO_2 gas separation", AI-Syn-PPOSS), 672 citations (HI = 17). The importance of her research activity is revealed also by the quality of the papers citing her papers, in journals like: Chemical Engineering Journal, Nature Chemical Biology, Advanced Materials, Chemical Reviews, Coordination Chemistry Reviews, Energy and Environmental Science.

In 2019-2023, Alexandra published her work in journals like: Reactive and Functional Polymers-https://doi.org/10.1016/j.reactfunctpolym.2023.105792,Polyhedron-

https://doi.org/10.1016/j.poly.2020.114356,Arabian Journal of Chemistry-https://doi.org/10.1016/j.arabjc.2018.09.001,Pharmaceuticshttps://doi.org/10.3390/pharmaceutics14122838, International Journal of Molecular Sciences, https://doi.org/10.3390/ijms23094721; Materials-https://doi.org/10.3390/ma14123313), Polymers https://doi.org/10.3390/polym13101605.

The practical applications of her work, is given by the patent applications: Nr. A00419/18.07.2022, G. Stiubianu, C. Ursu, A. Bele, M. Dascalu, A. Bargan, M. Cazacu, Institutul de Chimie Macromoleculara Petru Poni Iasi, A. Ciobotaru, SC All Cio Invest Iasi, 18.07.2022, "Process for obtaining a layered composite material for regulating human thermal comfort" and Nr. 3958/25.07.2022. A.Filimon, A.Dobos, A.Bargan, Institutul de Chimie Macromoleculara Petru Poni Iasi, L.Lupa, Universitatea Politehnica Timisoara, 25.07.2022, "Process for obtaining polysulfonic membranes functionalized with ionic liquids applicable in technological processes of water treatment by microfiltration".

Alexandra has 18+ years of research experience as key member of multiple research projects: https://icmpp.ro/newsmartsil/projects.php, including four international projects, with preparation and characterization of synthetic polymers with multiple functional groups and also as project leader for one PED type project, see: https://icmpp.ro/aisynpposs/. These research projects have provided the frame for her to accumulate experience as member of multidisciplinary teams of researchers with varied expertise in polymer synthesis, chemical engineering and polymer physics, concentrating on developing new materials with different apllications. She has a significant experience in synthesis and characterization of new compounds/materials using silicon, silica etc. with the objective to obtain active materials with various applications and also in neural networks, genetic algorithms and fuzzy logic for synthesis and characterization of new silicon compounds and functionalized silica nanostructures.

Visibility: https://www.brainmap.ro/alexandra-bargan-nistor ; https://orcid.org/0000-0002-9433-9595;https://www.webofscience.com/wos/author/record/B-8981-2019; https://scholar.google.com/citations?hl=en&user=FW1vhAIAAAAJ&view_op=list_works&sortby=pubdate ; https://www.webofscience.com/wos/author/record/B-8981-2019

Her research activity was awarded at INVENTICA 2022-Dynamic dual mode materials for human thermal comfort; G.Stiubianu, **A.Bargan**, M. Dascalu, A. Bele, C. Tugui, C.Ursu, C.Racles, M. Cazacu (silver); INVENTICA 2023-Intelligent tools for design, processing and optimization of new PS-POSS-IL type membranes applied in CO_2 gas separation; **A.Bargan**, M.Dascalu, G.Stiubianu,

B.Adrian, C.Cojocaru, A.Filimon, A.Dobos, A.Soroceanu, A. Macsim, M. Cazacu, 2023, (gold)-Process for obtaining the polysulfone membranes functionalized with ionic liquids applicable in technological processes of water treatment by microfiltration; A.Filimon, A.Dobos, **A.Bargan**, L.Lupa, patent aplication OSIM: A/00466/1.08.2022, 2023, Iasi, Romania (gold).

Now, Alexandra works like research assistant in our team, at "Petru Poni" Institute of Macromolecular Chemistry, Iasi.

Dr. Adrian Bele – Research Assistant (AC), Team Member 8

Dr. Adrian Bele, research assistant, followed the doctoral studies (2012-2017) at "Petru Poni" Institute of Macromolecular Chemistry, which gave him the opportunity to work on a recently developed scientific field so-called dielectric elastomers transducers (DETs). DETs are polymeric-based capacitors (electrode-dielectric-electrode assemblies) able to convert mechanical work into electrical energy or vice-versa. Thus, DETs can be used as actuators, generators, and sensors. Developed thesis, named *"Smart Silicone Materials"*, includes scientific results achieved working on several projects where the team member had key-role activities on achieving dielectric elastomer that suits well in DETs. The main activities in several national and international projects were to develop silicone-based nanocomposites which involves nanoparticle synthesis, polymer synthesis, and cross-linking strategies. Thus, the team member gained expertise in controlling the shape and the size of the final nanoparticles which were used to increase the dielectric properties of the final products and adjusting the molecular weight through the synthesis of the polymeric matrix to increase the mechanical performance of the final nanocomposite. Achieving a good compatibility of the filler with the polymeric matrix was a challenge that the team member successfully managed to accomplish by applying an optimised surface treatment of the nanoparticles. Obtained results were published in several scientific journals as main author. The team member was involved in chemically designed silicone polymers as platforms for polar silicone elastomers. From chemical modification of the polymer back-bone to cross-linking and blending of the resulted polymers, the team member was directly involved in all activities. The team member gained expertise in attaching polar groups by hydrosilylation and UV thiol-ene reactions, increasing the dielectric permittivity of the polymers and blending them with a non-polar one or used alone to obtain elastomers. Resulted blends or elastomers drove to materials with superior electromechanical properties, results published in several scientific journals and one international patent. Throughout the projects the team member gained expertise in crosslinking silicone polymers by condensation route with alkoxysilanes, radical

crosslinking at elevated temperature with peroxides or UV-based crosslinking. Understanding the advantages and disadvantages of the crosslinking pathways the team member adjusted the properties of final elastomers by choosing the proper cross-linking agent, gaining comprehensive understanding of the field for future applications. Electrodes represent important materials for a successfully DET for any kind of application. Basically, the active region of the electrodes gives the maximum electromechanical conversion. The main issue of the DET is represented by the compliance of the electrodes with the dielectric elastomer. The compliance issue was diminished using an original approach which involves silicon-based electrodes chemically bonded with the dielectric elastomer that maintain conductive at large strains after multiple cycles, improving the electromechanical conversion. Another original idea of the team member was to design and build (GreENnergy - PED type project) a fully automatic installation that can fabricate disk-shaped stacked DETs, with different diameters and layers. The experimental activity successfully validated the installation in laboratory pushing the TRL to 4, winning the gold medal at INVENTICA 2018 and publishing a **patent as main author** *(RO132642)*. The team member proved scale-up abilities that will give the possibility to rise the TRL of the herein proposed project. The first scientific grant won (Scientific Mission Grands 2017 - EuroEAP) by the team member gave him the opportunity to work in a leading worldwide known silicone laboratory at Danish Polymer Centre (Copenhagen, Denmark) under the supervision of dr. A. Skov. The project leader gained experience in a new siloxane synthesis named Piers-Rubinsztajn, which allows obtaining siloxane block-copolymers. The gained experience at Danish Polymer Centre placed a pathway to the second winning grand as project leader; a postdoctoral project (PN-III-P1-1.1-PD-2019-0148 - UEFISCDI). The targeted aim of the postdoctoral project implies adapting the silicone chemistry to improve the efficiency of silicone elastomers to convert the mechanical wave energy into electricity. The team member chose proper molecular weights, polar groups and cross-linking mechanisms to obtain full interpenetrating polymer networks as active materials in dielectric elastomer generators with superior harvesting properties *(patent request submitted and two articles published)*. Currently, he is coordinating a Young Research Team (PN-III-P1-1.1-TE-2021-0156) project where detailed pressure sensors are manufactured. The project aims to develop a polymer-based modular artificial sensing skin that acts as an impact damage detection and evaluation system with possible use on spacecrafts in low earth orbit (LEO), focusing on withdrawing the disadvantages of the already existing methods. The components are based on sensor modules made by dielectric elastomer transducers (DETs) special designed as modular pieces that can be changed if penetration takes place. The patent request

(A100664 / 08.11.2023) and the published articles on the modular sensors is the basis of another project which implies the industrial manufacturing as partner with a space-related Romanian company. The team member proved adaptability, scientific flexibility and teamwork abilities working with other groups from host institution in scientific fields that differ from his main scientific subject. Throughout research activity the team member had a key-role in 65 scientific publications (International and national patents, ISI articles, book chapters, conference proceedings). The team member has a h-index of 21, gathering 994 citations (without self-citations). All research activity can be found accessing the researcher ID (D-4352-2019), ORCID (https://orcid.org/0000-0001-8602-5273) or BrainMap (U-1700-032Z-0850) https://www.brainmap.ro/adrian-bele.

Dr. Alina Soroceanu– Research Assistant (AC), Team Member 9

Alina Soroceanu was born in 1984 in Iasi. She attended the courses of the Faculty of Physics within the "Alexandru I. Cuza" University, specializing in *Technological Physics* (license level, 2008). In 2010, she obtained her master's degree (Master's degree in Physics, *Specialization Advanced Materials. Nanotechnologies*, Faculty of Physics, "Alexandru I. Cuza" University, Iasi). In 2014, she defended her doctoral thesis in the field of chemistry ("Petru Poni" Institute of Macromolecular Chemisry, Iasi), obtaining the qualification **Very Good** (the title of the doctoral thesis: "*Structural and morphological changes induced by the presence of siloxane blocks in metal-organic complexes* ", scientific coordinator: Dr. Maria Cazacu). **She is currently a research assistant in the Department of Inorganic Polymers of the "Petru Poni" Institute of Macromolecular Chemistry in Iasi**, where she has been working since 2010, first as part of his doctoral internship (2010–2014) and later as a member of various projects of research and current activities from institutes specific to her professional setting.

By registering for a doctorate in the field of chemistry, **she wanted to complete her knowledge to become a specialist capable of understanding fundamental phenomena at an interdisciplinary level for the development of high-performance materials**. Most of the research activities for the achievement of the objectives of the thesis were carried out in the framework of a POS CCE project, Priority Axis 2: Competitiveness through Research, Technological Development, and Innovation. Operation 2.1.2: CD projects of high scientific level in which specialists from abroad will participate, with the title: *Synthesis and study of polymeric metallosiloxanes—new materials of interest for catalysis and nanoscience.* Within this project, **she also benefited from the expertise of specialists**

from abroad, both in the synthesis and characterization of metal complexes, learning the technique of crystallographic analysis by X-ray diffraction on a single crystal.

During his doctoral internship, she benefited from the funding of **two research internships on single crystal X-ray diffraction**, internships that had a strong impact on her research activity.

Thus, **she prepared, isolated, and characterized for the first time metal complexes of salen-type Schiff bases with a long, highly flexible, and hydrophobic siloxane-type spacer**. In addition to the original structures, the complexes proved to have excellent performances in terms of catalytic and biological activity. The applicability tests were carried out in collaboration with collectives from abroad with appropriate expertise for them. The original studies carried out further on these compounds demonstrated that these performances are due to their amphiphilic nature, rarely found in the case of known metal complexes with organic ligands, which determines their self-assembly in a different way depending on the polarity of the environment. Due to this phenomenon, in a polar environment, the complexed metal center gets a higher degree of exposure, which confers high catalytic or biological activity.

After defending the thesis, simultaneously with the synthesis of new complexes, **she continued the studies of their valorization by using them as active fillers for silicone matrices in order to optimize their properties of interest for their functioning as dielectric elastomers** for electromechanical transducers (artificial muscles).

In 2022, **she won**, in a competition launched by UEFISCDI, **a postdoctoral research project** (project title: *Polysiloxane/metal complex composites with dielectric elastomer properties*, mentor: Dr. Valeria Harabagiu), **which aimed to support young researchers, doctors of science, who wish to develop an independent professional career in research in order to stimulate scientific excellence in Romanian research**.

She obtained two honorary diplomas (Gold medal) for the presentation of a paper at the International exhibition of inventics, **in recognition of high scientific contribution and loyality**.

The **original results** obtained so far **have been published in the form of 3 proceedings, 15 scientific articles** in high-impact journals (*Inorganic Chemistry*, *Composites Part B: Engineering*, *Journal of Molecular Structure*, *European Journal of Inorganic Chemistry*, *Journal of Chemical Crystallography*, *Soft Materials*, *Polyhedron*, *Inorganica Chimica Acta*, *Journal of Molecular Liquids*, *Revue Roumaine de Chimie*, *Materials*, *Crystals*) **from which 10 in yellow/red zone (6/4)** with a **Cumulative IF=47.64** (*Web of Science Core Collection, June 2023*) **(main author for 9 of**

them), and presented in the form of **oral communications (15)** or **posters (35)** at various national and international scientific events.

Dr. Madalin Damoc – Postdoc, Research Assistant (AC), Team Member 10

Madalin Damoc was born in 1997 in Bacau. He graduated from the Faculty of Chemistry at the Technological Biochemistry section of "Alexandru Ioan Cuza" University in 2018 with a bachelor's degree. His thesis was on "High-performance liquid chromatography for analyzing some active constituents of medicines" under the supervision of Prof. Dr. Cecilia Arsene. From 2018 to 2020, he pursued his master's studies in Environmental Chemistry and Food Safety at the same university, and his thesis was titled "Salen-type metal complexes having siloxane spacers" under the supervision of Conf. Dr. Maria Ignat. During the 2018-2019 academic year, he was recognized for his outstanding performance. From 2020 to 2023, he pursued his doctoral studies at the School of Advanced Studies of the Romanian Academy, "Petru Poni" Institute of Macromolecular Chemistry, Iasi. His PhD thesis was titled "Proligands and coordination compounds having flexible and hydrophobic moieties, capable of self-organization" under the supervision of Acad. Maria Cazacu.

From 2018 to 2023, he worked as a team member on the following projects: "Emerging 2D materials based on two-dimensional permethylated metal-organic networks, PerMONSil, Proiect PN-III-P4-ID-PCE-2020-2000, Contract 207/2021 (2021–2023)" and "Recovery of platinum-group metals from spent automotive catalysts using chemical methods, ECOTECH-GMP, Contract 76PCCDI/2018 (2018–2020)". He has been working as a research assistant at the "Petru Poni" Institute of Macromolecular Chemistry in Iasi since 2020.

Mădălin Dămoc co-authored 15 scientific papers, among the foremost are the following: a) **Damoc, M.**; Tiron, V.; Tugui, C.; Varganici, C. D.; Stoica, A. -C.; Novitchi, C.; Dascalu, M.; Cazacu, M. (2023): Ferronematic Co(II) complex: an active filler for magnetically actuated soft materials. Small, 2307006. https://doi.org/10.1002/smll.202307006; b) **Damoc, M.**, Tigoianu, R.I., Stoica, A.C., Macsim, A.M., Dascalu, M., Shova, S., Cazacu, M. (2023): Micellization Turned on Dual Fluorescence and Room Temperature Phosphorescence by Pseudo-ESIPT in Thiadiazole Derivatives. *J. Phys. Chem .*, *127* (1), 99-109. https://doi.org/10.1021/acs.jpcc.2c07651; **Damoc, M.**; Stoica, A. C.; Dascalu, M.; Asandulesa, M.; Shova, S.;* Cazacu, M. (2021): Dual Crystalline-Amorphous Salen-Metal Complexes Behave like Nematic Droplets with AIEgens Vistas. *Dalton Trans.*, *50* (39), 13841–13858. https://doi.org/10.1039/D1DT01980E.

He presented posters or oral communications at national and international conferences. Three of his oral presentations were awarded as the best: "Salen Type Schiff Bases of 1,3-bis(3-aminopropyl)tetramethyldisiloxane and their metal complexes" and "Pt(IV) complex with multiple catalytic activities"; Progresses in the Science of Organic and Macromolecular Compounds, 2-4 October 2019, Iasi, Romania; b) ACS Best Presentation Award for the presentation "Siloxane/silane derivatives and their gold complexes: interfacial phenomena based on photoluminescence"; Progress in Organic and Macromolecular Compounds, 2021, Iasi, Romania; c) The best oral presentation award for "A ferronematic Co(II) coordination compound suitable as active filler for magnetically actuated materials'' Progress in Organic and Macromolecular Compounds, 29th Edition, October 4-6, 2023, Iasi, Romania.

Throughout his scientific career, he developed a range of job-related skills in both organic and inorganic synthesis. These skills include the synthesis of organic compounds such as Schiff bases, ethers, thioethers, Click chemistry, and alkylation, as well as the synthesis of inorganic compounds such as metal complexes of 3d series and gold complexes. He is also proficient in the characterization of organic and inorganic compounds using various techniques such as FTIR, UV-VIS, NMR, 2D NMR, XRD, PXRD, MS, and elemental analysis. Additionally, he possesses expertise in evaluating the optical properties of compounds using techniques such as UV-VIS, fluorescence, phosphorescence, linear dichroism, time-resolved fluorescence, and transient absorption spectroscopy. He has experience in thermal analysis techniques such as DSC and TGA, and in assessing colloidal properties using the Wihelmy method, DLS, liquid crystals, self-assembly, POM, dielectric spectroscopy, zeta potential, and TEM. Furthermore, he has knowledge in chromatography techniques such as TLC, column chromatography, and HPLC, and in evaluating acido-basic interactions through methods such as Job and Hildebrand-Benesi methods.

He conducted research twice, from December 8, 2019, to January 7, 2020, and from August 28 to September 27, 2021, at the Institute of Organic Synthesis NAS of Ukraine in Kyiv. He participated in two specialized programs at The International School on Innovations in Homogeneous and Supported Homogeneous Catalysis, which took place from April 25th to April 28th, 2023, in București, România, and MECAREACT, a program on Vibrational and Electronic Spectroscopies Applied to the Study of Reaction Mechanisms, held from June 18th to June 23rd, 2023, in Paris, France.

Dr. Alexandru-Constantin Stoica– Postdoc, Research Assistant (AC), Team Member 11

Stoica Alexandru-Constantin received his Bachelor's Degree in 2018 at "Alexandru Ioan Cuza" University of Iași, Faculty of Chemistry. He received his master degree in *Chemistry of Cosmetic and Pharmaceutical Products* at the same education unit. Stoica Alexandru-Constantin started his PhD in 2020 at School of Advanced Studies of the Romanian Academy (SCOSAAR) conducting research activities in "Petru Poni" Institute of Macromolecular Chemistry, Grigore Ghica Vodă Alley 41A, Iasi 700487, Romania, in the Department of Inorganic Polymers. He defended his doctoral thesis in December 2023 (*Coordination compounds of different dimensionality with ligands containing siloxane spacers*) under the supervision of dr. Maria Cazacu and obtained the "*excellent*" rating. Stoica Alexandru-Constantin has strong knowledge in synthesis and characterization of ligands with silane or siloxane skeleton, and their 0D-3D complex combinations with transition metals and platinum, preparation of platinum-based composites as catalysts, fine organic synthesis, synthesis of polymers and oligomers, with skills in structural analysis and elucidation of the structures by single crystal X-ray diffraction (XRD).

In the period 11.2018-04.2021 he was employed as a research assistant in project *Recovery of platinum-group metals from spent automotive catalysts using chemical methods* (ECOTECH-GMP, PN-III-P1-1.2-PCCDI-2017-0185, Contract 76PCCDI/2018, http://www.3nanosae.org/ecotech-gmp) implemented in "Petru Poni" Institute of Macromolecular Chemistry. The main research activities supposed: - *synthesis and characterization of silane and siloxane-containing ligands, and their complex combinations*; - *Recovery and re-utilization of platinum group metals from used automotive catalytic converters*; -*the use of characterization techniques FTIR, UV-VIS, NMR, XRD and the interpretation of the results obtained*; - *Synthesis of platinum-based composites and their using in catalysis*. Also, in the period 05.03.2021-31.12.2023 Stoica Alexandru-Constantin was involved in a project *Emerging 2D materials based on two-dimensional permethylated metal-organic networks* (PN-III-P4-ID-PCE-2020-2000, Contract number: PCE 207/2021, 2D-PerMONSil https://www.2dpermosil.ro/) implemented in the Department of Inorganic Polymers, "Petru Poni" Institute of Macromolecular Chemistry. His main concerns within the project were: - *synthesis and characterization of two-dimensional metal-organic networks, with or without siloxane fragment*; - *structural characterization of networks by single crystal X-ray diffraction (data acquisition and processing).*

The scientific results in these fields have materialized through: *12* scientific papers, *15* oral communications and *11* posters at international conferences, 2 national patents submitted (*no.*

A/00272/2020, Process of re-utilization of used catalysts from car exhaust; *no. A/00664/2023* Process for obtaining a module of polymeric pressure sensors for detecting a mechanical impact) and a Hirsch factor of *2* (web of knowledge). As awards and honors gained by him can be mentioned: *Gold Medal Inventica 2020* (C. Racleș, M. Cazacu, A. Stoica, C. Diac, *Process for reuse of exhausted catalytic converters*); *Best Young Scientist Poster* (A.-C. Stoica, M. Dascalu, M. Damoc, M. Cazacu, Some coordination polymers with pyridine-based ligands: synthesis and structural characterization. Progress in Organic and Macromolecular Compounds, 29th Edition, 4-6.10.2023, Iasi, Romania). He attended two thematic schools: *The international school on innovations in homogeneous and supported homogeneous catalysis* (25-28.04.2023, București, România) and *Thematic school vibrational and electronic spectroscopies applied to the study of reaction mechanisms – MECAREACT* (18-23.06.2023, Paris, France). Receiving financial support he performed 2 research internships: - *Institute of Organic Synthesis at Taras Shevchenko National University of Ukraine, Kiev* (Project- H2020-MSCA-RISE-2016, SPINSWITCH No. 734322 28.08-27.10.2021); - *Rigaku, MINIFLEX TRAINING* (EUROPE), Neu-Isenburg, Germania, 09-10 October 2023.

Please visit the profiles: https://orcid.org/0000-0003-3812-2428, https://www.brainmap.ro/public-profile-82837916

PhD student Bianca-Iulia Ciubotaru, Team Member 12

Bianca-Iulia Ciubotaru is currently a PhD student with work experience as an Assistant researcher in the Inorganic Polymers Department of "Petru Poni" Institute of Macromolecular Chemistry from Iasi, Romania, conducting research for the thesis "*New compounds and materials containing silicon for biomedical applications*" under the scientific advisement of Dr. Maria Cazacu. Since starting the PhD programme in 2019, the candidate has gained skills in the synthesis of amino functionalized siloxanes, in the obtaining and characterization of self-assembled networks and porous networks used as sensors, in the chemical modification of silicone substrates with active groups, studying the behavior of the compounds in simulated physiological environments and evaluating the bio- and muco-adhesion phenomena on different biological substrates in controlled drug release studies, and also in the evaluation of materials and biomaterials for their characteristics. The scientific research contains 20 ISI articles as author and co-author of (9 in Q1 zone and 11 in Q2 zone), 1 book chapter, 4 articles in proceedings, 4 posters, 17 oral communications, 1 gold medal at an international conference-INVENTICA, member in 3 research national/international grants, an international mobility at Taras Shevchenko National University of Kyiv, Ukraine between 28.08.2021 -

27.10.2021, to carry out a research internship in the framework of the H2020-MSCA-RISE-2016 project, 65 citations with an HI of 5.

The training and education background has been gained throug a Bachelor degree from "Gr. T. Popa" University of Medicine and Pharmacy, Iasi, Faculty of Medical Bioengineering, between 2013-2017, obtaining expertise in the field of applied engineering sciences, with the qualification of Medical Bioengineer, granted after passing the exam completion, defending the thesis "*Cardiovascular implants*", and learning outcomes through the study program in the application of the principles of physics, chemistry, mathematics and engineering principles for the study of biology, medicine, as well as behavior or health. The knowledge of the basic principles of the functioning, characteristics and applications of medical devices, together with the operating principles of medical devices for applying the methods and techniques of collecting, analyzing and processing medical signals, together with the knowledge of the types of biomaterials and skills in their processing for obtaining and using implantable medical devices and individual control devices, as well as skills in the synthesis and evaluation of bioactive compounds and in the application of biotechnological processes have led to certified skills for developing strategies in clinical and administrative decision making in healthcare systems. Good communication skills have been gained through the experience as a Bioengineering Students Association member (2013-2017).

During the final year of bachelor training 2016-2017, an Erasmus+ Mobility at Universiteit Ghent, Belgium, Faculteit Ingenieurswetenschappen en Architectuur, in the Biomedical Engineering Master's Programme as an exchange student helped in the training on subjects such as biomedical imaging, bioelectrnics, modelling of physiological systems, technology and design of artificial organs, as well as technology and environment.

Between 2017-2019 the Master's Degree on Medical Biotechnologies and Advanced Biomaterials from the "Gr. T. Popa" University of Medicine and Pharmacy, Iasi, Faculty of Medical Bioengineering was obtained, graduating 1st in class, following the defence of the dissertation "*Experimental methods of biological tests for the evaluation of mucoadezivity*". In this time organisational and managerial skills were acquired as an organizing volunteer for the European Exhibition of Creativity and Innovation – Euroinvent (2018-2019). In this time, the professional qualification as General medical assistant was granted after finishing the courses of "Grigore Ghica Voda" State Sanitary Post-Secondary School from Iasi between 2017-2020 and defending the thesis "*Neurolues patient care*".

The entire training and formation pathway is aimed at improving the quality of life for patients and society. Topics of interest include silicone biomaterials which represent an ever-expanding frontier in the biomedical research, innovations in this direction having the potential to bring significant benefits in improving medical treatments, diagnosis and quality of life for patients. They remain of interest for advanced biomedical implants and devices (controlled drug delivery devices, implantable sensors or prostheses), personalised therapy (adaptable to individual patient needs and the biological specificities of a given environment), medical imaging, devices for rapid diagnosis, regenerative medicine (cell growth cultures), wearable medical devices for health monitoring, in nanomedicine an so on.

Visibility: https://www.brainmap.ro/bianca-iulia-ciubotaru; https://orcid.org/0000-0002-4193-899X.

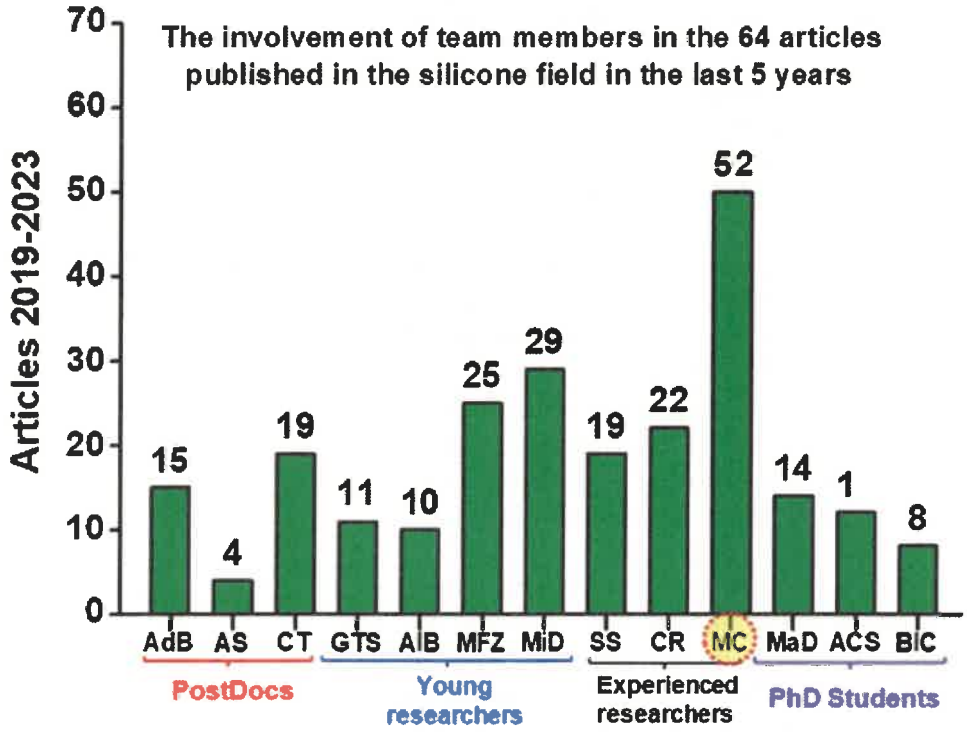
8. The publication list of the "individual" candidate or each member of the team, in the case of the "research team" candidate, with an emphasis on the candidate's pertinent works from the previous five years and, in the case of the "research team" candidate, the collective works of the team members. Additionally, a link to the website featuring the candidate's publications is included.

Lists of all the publications of the team members can be found at:

https://icmpp.ro/newsmartsil/dissemination_articles.php

SmartSil team members are authors of 232 articles affiliated with "Petru Poni"Institute of Macromolecular Chemistry (Department of Inorganic Polymers), published in the last five years, as follows:		
Authors	**Articles number**	**Quartile, Qx**
A main author or at least two authors belonging to the team	**83**	**22Q1, 36Q2, 15Q3, 7Q4, three ofthem without Q**
Publications ***in the field of silicones*** with the majority of authors belonging to the SmartSil team, *of which:* Joint publications of ***team members with the team leader*** *(graph below)*	**64** **52**	**16Q1, 28Q2, 12Q3, 6Q4, two without Q** **13 Q1, 26 Q2, 7Q3, 4Q4, two without Q**
Publications with team leader as author of correspondence	**29**	**9Q1,17Q2, 2Q3, 1Q4**
Cumulated influence score of the teal leader, in the last five years, A: 5,037		
Another **149 articles (37Q1, 43Q2, 42Q3, 10Q4, 17 without Q**)based on collaborations of the team members with some other teams from the country and abroad.* The contributions of the team members in these works are generally related to the synthesis of compounds and materials, structural analysis, surface analysis, mechanical and actuation measurements. **14 articles** in Proceedings and other journals from the country and abroad.		

*National universities and institutes ("Alexandru Ioan Cuza" University and "Gh. Asachi" Tehnical University of Iasi, Metropolitan Center of Research T.A.B.O.R., Iasi, University of Bucharest, Politehnica University of Bucharest, "C.D. Nenitzescu" Institute of Organic and Supramolecular Chemistry, "Ilie Murgulescu" Institute of Physical Chemistry, ICECHIM Bucharest, University of Agronomic Sciences and Veterinary Medicine of Bucharest, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Babeş-Bolyai University, Cluj, Institute of Chemistry Timisoara, ICSI Rm. Valcea, etc.) and from abroad (University of Vienna, University of Lille, CNRS-LNCMI, Grenoble, Université de Montpellier, CNRS, ENSCM, France, University of Zaragoza, and Universitat de València, Spain, Institute of Chemical Sciences, Siedlce, and University of Warsaw, Poland, Taras Shevchenko National University of Kyiv, and National Technical University of Ukraine, Slovak University of Technology in Bratislava, University of Belgrade, Serbia, Universidade de Lisboa, Portugal, Institute of Chemistry and Moldova State University Chisinau, Moldova, Institute for Medicines and Medical Devices of Montenegro, Podgorica, Montenegro, etc.).



Dr. Cazacu Maria, CSI, team leader

Total number of publications (according to the Web of Science): 271

https://icmpp.ro/newsmartsil/files/Publications_Cazacu_M.pdf

Publications in the 2019-2023 period: 52 (13Q1, 26Q2); 29 articles (9Q1, 17Q2) as main author published in the last 5 years A= 5,037

No.	Articles	Q_{AIS}	AIS	A = AIS/authors no.	Citations
	2023				
1.	Ferronematic Co(II) complex: an active filler for magnetically actuated soft materials; M. Damoc, V. Tiron, C. Tugui, C.D.	Q1	2.545	0.318	0

	Varganici, A.-C. Stoica, G. Novitchi, M. Dascalu, **M. Cazacu**; Small 2307006 (2023) (FI_{2023} = 13.3) (Q_{FI} = Q1)				
2.	Amino-functionalized silicones processed as porous dual covalent/supramolecular networks for pressure sensing; B.-I. Ciubotaru, M.-F. Zaltariov, M. Dascalu, A. Bele, A. Bargan, **M. Cazacu**; Reactive and Functional Polymers 194, 105792 (available online 21 nov. 2023) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.089	0
3.	The impact of the addition of vitamins on a silicone lining material to the oral mucosa tissue-evaluation of the biocompatibility, hydrolytic stability and histopathological effect; I. Gradinaru, B.I. Ciubotaru, M. Butnaru, F.D. Cojocaru, C.T. Covasa, T. Bibire, M. Dascalu, A. Bargan, **M. Cazacu**, M.F. Zaltariov; Medicina 59, 1936 (2023) (FI_{2023} = 2.6) (Q_{FI} =Q2)	Q3	0.531	0.053	0
4.	All-Silicone 3D printing technology: toward highly elastic dielectric elastomers and complex structures; C. Tugui, **M. Cazacu**, D.M. Manoli, A. Stefan, M. Duduta; ACS Applied Polymer Materials 5 (10), 7936-7946 (2023) (FI_{2023} = 5.0) (Q_{FI} = Q2)	Q1	0.818	0.164	1
5.	A Manganese (II) 3D Metal–Organic Framework with siloxane-spaced dicarboxylic ligand: synthesis, structure, and properties; A.C. Stoica, M. Damoc, S. Shova, G. Novitchi, M. Dascalu, **M. Cazacu**; Inorganics 11(1) 21 (2023) (FI_{2023} = 2.9) (Q_{FI} = Q2)	Q2	0.426	0.071	0
6.	Micellization turned on dual fluorescence and room temperature phosphorescence by pseudo-ESIPT in thiadiazole derivatives; M. Damoc, R.I. Tigoianu, A.C. Stoica, A.M. Macsim, M. Dascalu, S. Shova, **M. Cazacu**; Journal of Physical Chemistry C 127 (1), 99-109 (2023) (FI_{2023} = 3.7) (Q_{FI} = Q2)	Q2	0.827	0.118	
7.	Mucoadhesive mesoporous silica particles as versatile carriers for doxorubicin delivery in cancer therapy; M.F. Zaltariov, B.I. Ciubotaru, A. Ghilan, D. Peptanariu, M. Ignat, M. Iacob, N. Vornicu, **M. Cazacu**; International Journal of Molecular Sciences 24, 14687 (2023) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.028	0.129	
8.	Fully carboxy-functionalized polyhedral silsesquioxanes as polar fillers to enhance the performance of dielectric silicone elastomers; M. Dascalu, A.-C. Stoica, A. Bele, L. Yu, D. Ionita, A.-L. Vasiliu, A.L. Skov, C. Racles, **M. Cazacu**; Polymer 289, 126492 (2023) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601	0.067	
9.	From passive to emerging smart silicones; **M. Cazacu**, M. Dascalu, G.T. Stiubianu, A. Bele, C. Tugui, C. Racles; Reviews in Chemical Engineering 39 (6), 941-1003 (2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q1	1.014	0.169	4
10.	Bentonite as an active natural filler for silicone leading to piezoelectric-like response material; M. Iacob, V. Tiron, G.T. Stiubianu, M. Dascalu, L. Hernandez, C.D. Varganici, C. Tugui, **M. Cazacu**; Journal of Materials Research and Technology 17, 79-94 (2022) (FI_{2023} = 6.4) (Q_{FI} = Q1)	Q1	0.812	0.102	5

11.	Catalyst-free crosslinked sustainable functional silicones by supramolecular interactions; B.I. Ciubotaru, M. Dascalu, M.F. Zaltariov, A.M. Macsim, M. Damoc, A. Bele, C. Tugui, C.D. Varganici, **M. Cazacu**; Reactive and Functional Polymers 181, 105419/1-19 (2022) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.059	2
12.	Silicones with different crosslinking patterns: Assessment from the perspective of their suitability for biomaterials; B.I. Ciubotaru, M.F. Zaltariov, C. Tugui, I.E. Stoleru, D. Peptanariu, G.T. Stiubianu, N. Vornicu, **M. Cazacu**; Surfaces and Interfaces 32, 102168 (2022) (FI_{2023} = 6.2) (Q_{FI} = Q2)	Q1	0.696	0.087	
13.	One-pot reduction-hydrophobization of heterogenized platinum with 1,1,3,3-tetramethyldisiloxane; A.C. Stoica, M. Damoc, L. Baltag, A.M. Macsim, A. Nicolescu, M.V. Dinu, G. Ionita, **M. Cazacu**; Applied Organometallic Chemistry 36 (1), e6485 (2022) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.049	
14.	Scalable silicone composites for thermal management in flexible stretchable electronics; G.T. Stiubianu, A. Bele, M. Grigoras, C. Tugui, B.I. Ciubotaru, M.F. Zaltariov, F. Borza, L.G. Bujoreanu, **M. Cazacu**; Batteries 8 (8), 95 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q2	0.861	0.096	1
15.	Soft silicone elastomers exhibiting large actuation strains; **A.** Bele, M. Dascalu, C. Tugui, G.T. Stiubianu, C.D. Varganici, C. Racles, **M. Cazacu**, A. Ladergaard Skov; Journal of Applied Polymer Science 139(22), 52261/1-11 (2022) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.046	7
16.	Octakis(carboxyalkylthioethyl)silsesquioxanes and derived metal complexes: Synthesis, characterization and catalytic activity assessments; M. Dascalu, A.C. Stoica, A. Bele, A.M. Macsim, A, Bargan, C.D. Varganici, G.T. Stiubianu, C.Racles, S. Shova, **M. Cazacu**; Journal of Inorganic and Organometallic Polymers and Materials 32, 3955-3970 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355	0.036	1
17.	Fourteen-member silacycle built by cascade reactions induced by a platinum catalyst; M. Damoc, A.C. Stoica, D.A. Blaj, A.M. Macsim, M. Dascalu, C. Cojocaru, S. Shova, **M. Cazacu**; Journal of Molecular Structure 1269, 133760/1-8 (2022) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331	0.041	
18.	Some theoretical and experimental evidence for particularities of the siloxane bond; A.C. Stoica, M. Damoc, C. Cojocaru, A. Nicolescu, S. Shova, M. Dascalu, **M. Cazacu**; Molecules 27(23), 8563 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.094	
19.	All-polymer piezo-composites for scalable energy harvesting and sensing devices; G.T. Stiubianu, A. Bele, A. Bargan, V.O. Potolinca, M. Asăndulesa, C. Tugui, V. Tiron, C. Hamciuc, M. Dascalu, **M. Cazacu**; Molecules *27*(23), 8524 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.066	1
20.	Structural-functional changes in a Ti50Ni45Cu5 alloy caused by training procedures based on free-recovery and work-generating shape memory effect; M. Popa, N.M. Lohan, B. Pricop, N.	Q2	0.712	0.079	

	Cimpoesu, M. Porcescu, R.I. Comaneci, **M. Cazacu**, F. Borza, L.G. Bujoreanu; Nanomaterials 12 (12), 2088 (2022) (FI_{2023} = 5.3) (Q_{FI} = Q2)				
21.	Functionalized mesoporous silica as doxorubicin carriers and cytotoxicity boosters; **C. Racles, M.F. Zaltariov**, D. Peptanariu, T. Vasiliu, **M. Cazacu**; Nanomaterials 12(11), 1823 (2022) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712	0.142	7
22.	2D coordination polymers and ionic complexes of the nickel(II) and zinc(II) cyclam cations with trigonal carboxylate linkers based on triazine core. Crystal structures, supramolecular catenation and spectral characterization; R.I. Gurtovyi, S.P. Gavrish, L.V. Tsymbal, M.O. Apostu, **M. Cazacu**, S. Shova, Y.D. Lampeka; Polyhedron 221, 115870 (2022) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.039	2
23.	Chemical attachment of 5-nitrosalicylaldimine motif to silatrane resulting in an organic–inorganic structure with high medicinal significance, M.-F. Zaltariov, M. Turtoi, D. Peptanariu, A.-M. Macsim, L. Clima, C. Cojocaru, N. Vornicu, B.-I. Ciubotaru, A. Bargan, M. Calin, **M. Cazacu;** Pharmaceutics 2022, 14, 2838. (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q1	0.756	0.069	3
24.	Dual crystalline-amorphous salen-metal complexes behave like nematic droplets with AIEgens vistas; M. Dămoc, A.C. Stoica, M. Dascălu, M. Asăndulesa, S. Shova, **M. Cazacu**; Dalton Transactions 50, 13841-13858 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.096	2
25.	From amorphous silicones to Si-containing highly ordered polymers: Some Romanian contributions in the field; **M. Cazacu**, C. Racleș, M. F. Zaltariov, M. Dascălu, A. Bele, C. Țugui, A. Bargan, G. Știubianu; Polymers 13(10), 1605 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076	5
26.	Two-dimensional coordination polymers containing permethylated motifs - promising candidates for 2D emerging materials. Structural, behavioral and functional particularities; A.C. Stoica, M. Dămoc, M.F. Zaltariov, C. Racleș, **M. Cazacu**; Reactive and Functional Polymers 168, 105039 (2021) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.107	4
27.	New heterogeneous catalysts containing platinum group metals recovered from a spent catalytic converter; C. Racleș, M.-F. Zaltariov, A. Coroabă, M. Silion, C. Diac, A. Dascălu, M. Iacob, **M. Cazacu;** Applied Organometallic Chemistry 35, e6417 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.049	4
28.	Octakis(phenyl)-T_8-silsesquioxane-filled silicone elastomers with enhanced electromechanical capability; M. Dascălu, M. Iacob, C. Țugui, A. Bele, G.-T. Știubianu, C. Racleș, **M. Cazacu**; Journal of Applied Polymer Science 138 (14), 50161 (2021) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052	4
29.	Silanol-functionalized tetranuclear copper complex and its nanoscale-heterogenization by immobilization on glass surface	Q2	0.668	0.095	1

	from solution; A.C. Stoica, M. Dămoc, V. Tiron, M. Dascălu, A. Coroabă, S. Shova, **M. Cazacu**, Journal of Molecular Liquids 344, 117742 (2021) (FI_{2023} = 6.0) (Q_{FI} = Q2)				
30.	Slow magnetic relaxation in {[CoCxAPy)]2.15H_2O}$_n$ MOF built from ladder-structured 2D layers with dimeric SMM rungs; A. Arauzo, E. Bartolome, J. Luzon, P. Alonso, A. Vlad, **M. Cazacu**, M.F. Zaltariov, S. Shova, J. Bartolome, C. Turta; Molecules 26(18), 5626 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q3	0.660	0.066	3
31.	Silicone dielectric elastomers optimized by crosslinking pattern - a simple approach to high-performance actuators; C. Tugui, G.T. Stiubianu, M.S. Serbulea, **M. Cazacu**; Polymer Chemistry 11, 3271-3284 (2020) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.802	0.201	16
32.	Permethylated dinuclear Mn(III) coordination nanostructure with stripe-ordered magnetic domains; S. Shova, V. Tiron, A. Vlad, G. Novitchi, D.G. Dumitrescu, M. Damoc, M.-F. Zaltariov, **M. Cazacu;** Applied Organometallic Chemistry e5957 (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.049	
33.	Keto-enol tautomerism in new silatranes Schiff bases tailed with different substituted salicylic aldehyde; A. Bargan, M.F. Zaltariov, A. Vlad, A.M.C. Dumitriu, A. Soroceanu, A.M. Maxim, M. Dascalu, C.D. Varganici, **M. Cazacu**, S. Shova; Arabian Journal of Chemistry 13, 3100-3111 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.679	0.068	10
34.	Nanoscale coordination polymer of dimanganese(II) as infinite, flexible nanosheets with photoswitchable morphology; S. Shova, A. Vlad, M. Damoc, V. Tiron, M. Dascalu, G. Novitchi, C. Ursu, **M. Cazacu**; European Journal of Inorganic Chemistry, (21), 2043-2054 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q2)	Q2	0.393	0.049	4
35.	Synthesis, structural characterization and properties evaluation of two new zwitterionic siloxane compounds; A. Bargan, **M. Cazacu**, M. Dascalu, A.-M. Macsim, A. Soroceanu, I.F. Macsim; Polyhedron 179, (2020) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.046	
36.	Silicone elastomers filled with rare earth oxides; M. Iacob, A.Airinei, M. Asandulesa, M. Dascalu, N. Tudorachi, L. Hernandez, **M. Cazacu**; Materials Research Express 7(3), 035703 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q3)	Q4	0.260	0.037	4
37.	A 2D coordination polymer assembled from a nickel (II) tetraazamacrocyclic cation and 4,4'-(dimethylsilanediyl)diphthalate(3-) linker; S.P. Gavrish, S. Shova, **M. Cazacu**, Y.D. Lampeka; Acta Crystallographica Section C: Structural Chemistry 76 (Part 3), 419-426 (2020) (FI_{2023} = 0.8) (Q_{FI} = Q4)	Q4	0.117	0.029	4
38.	Coordination compounds with siloxane/silane-containing ligands capable of self-assembly at nano/ micro scale in solid state and in solution, M.F. Zaltariov, **M. Cazacu**, Advances in Inorganic Chemistry, 76, 155-196, 2020. (FI_{2023} = 2.93) (Q_{FI} = Q2)	Q2	0.524	0.262	3
39.	Salen-type Schiff bases spaced by the highly flexible and	Q2	0.668	0.111	6

	hydrophobic tetramethyldisiloxane motif. Some synthetic, structural and behavioral particularities M. Damoc, A.C. Stoica, A. M. Macsim, M. Dascalu, M. F. Zaltariov, **M. Cazacu** Journal of Molecular Liquids, 316, Article 113852/1-11 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)				
40.	Preparation and characterisation of stacked planar actuators; C Tugui, M.S. Serbulea; **M. Cazacu;** Chemical Engineering Journal 364, 217-225 (2019) (FI_{2023} = 15.1) (Q_{FI} = Q1)	Q1	2.029	0.676	12
41.	Dinuclear manganese(III) complexes with bioinspired coordination and variable linkers showing weak exchange effects: a synthetic, structural, spectroscopic and computation study; S. Shova, A. Vlad, **M. Cazacu**, J. Krzystek, A. Ozarowski, M. Malcek, L. Bucinsky, P. Rapta, J. Cano, J. Telser, V.B. Arion; Dalton Trans., 48(18), 5909-5922 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.052	9
42.	From ultra-high molecular weight polydimethylsiloxane to super-soft Elastomer; C. Tugui, V. Tiron, M. Dascalu, L. Sacarescu, **M. Cazacu**; European Polymer Journal 120, 109242 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q1)	Q1	0.671	0.134	13
43.	Silver thin films generated by Pulsed Laser Deposition on plasma-treated surface of silicones to get dielectric elastomer transducers; C Tugui, C. Ursu, M.F. Zaltariov, M. Aflori, M. Mičušík, M. Omastová, **M. Cazacu**; Surface & Coatings Technology 358, 282-292 (2019) (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q1	0.644	0.092	7
44.	Copper(II) complexes with spherical morphology generated in one step by amphiphilic ligands: in situ view of the self-assembling, characterization, catalytic activity; G.-O. Turcan-Trofin, M.-F. Zaltariov, M. Iacob, V. Tiron, F. Branza, C. Racles, **M. Cazacu**; Colloids and Surfaces A: Physicochemical and Engineering Aspects, 580, 123756 (2019) (FI_{2023} = 5.2) (Q_{FI} = Q2)	Q3	0.6	0.086	1
45.	Hydrophobic, amorphous metal-organic network readily prepared by complexing the aluminum ion with a siloxane spaced dicarboxylic acid in aqueous medium; **M. Cazacu,** G.O. Turcan-Trofin, A. Vlad, A. Bele, S. Shova, A. Nicolescu, A. Bargan; J. Appl. Polym. Sci. 136 (9), 47144 (2019) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052	6
46.	Amphiphilic silicone-bridged bis-triazoles as effective, selective metal ligands and biologically active agents in lipophilic environment; G.O. Turcan-Trofin, M.-F. Zaltariov, G. Roman, S. Shova, N. Vornicu, M. Balan-Porcarasu, D. L. Isac, A. Neamtu, **M. Cazacu**; J. Mol.Liq. 294, 111560 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.074	3
47.	Linear and cyclic siloxanes functionalized with polar groups by thiol-ene addition: Synthesis, characterization and exploring some material behaviour; G.-O. Turcan-Trofin, M. Asandulesa, M. Balan-Porcarasu, C.-D. Varganici, V. Tiron, C. Racles, **M.**	Q2	0.668	0.095	5

	Cazacu; J. Mol. Liq. 282, 187-196 (2019) **(FI_{2023} = 6.0)** (Q_{FI} = Q2)				
48.	Nanomaterials developed by processing iron coordination compounds for biomedical application; M. Iacob, C. Racles, M. Dascalu, C Tugui, V. Lozan, **M. Cazacu**; Journal of Nanomaterials, Article ID 2592974 (2019). (FI_{2023} = 3.791) (Q_{FI} = Q3)	Q3	0.439	0.073	5
49.	Siloxane-based compounds with tailored surface properties for health and environment; C. Racles, **M. Cazacu**, M. Zaltariov, M. Iacob, M. Butnaru M; Phosphorus, Sulfur, and Silicon and the Related Elements 194(10), 972-977 (2019) (FI_{2023} = 1.3) (Q_{FI} = Q4)	Q4	0.143	0.029	5
50.	Novel platinum-porphyrin as sensing compound for efficient fluorescent and electrochemical detection of H_2O_2; E. Fagadar-Cosma, N. Plesu, A. Lascu, D. Anghel, **M. Cazacu**, C. Ianasi, G. Fagadar-Cosma, I. Fratilescu, C. Epuran; Chemosensors 8, 29 (2020) (FI_{2023} = 4.2) (Q_{FI} = Q2)	Q2	0.530	0.066	12
51.	Crystal structure of the onedimensional coordination polymer formed by the macrocyclic [Ni(cyclam)]2+ cation and the dianion of diphenylsilanediylbis(4-benzoic acid); S.P. Gavrish, S. Shova, **M. Cazacu**, Y.D. Lampeka; Acta Crystallographica Section E: Crystallographic Communications 76, 929-932 (2020) (FI_{2023} = -) (Q_{FI} = -)		0.070	0.018	1
52.	Syntheses and crystal structures of the one-dimensional coordination polymers formed by [Ni(cyclam)]2+ cations and 1,3-bis(3-carboxypropyl)tetramethyldisiloxane anions in different degrees of deprotonation; S.P. Gavrish, S. Shova, **M. Cazacu**, M. Dascalu, Y.D. Lampeka; Acta Crystallographica Section E: Crystallographic Communications 76(Part 3), 446-451(2020) (FI_{2023} = -) (Q_{FI} = -)		0.070	0.014	2
	Cumulated A			**5.037**	

Joint publications of the members of the research team in the last 5 years: 83* (22Q1, 36Q2, 15Q3, 7Q4, three of them without Q).

No.	Publications in the field of silicones: 64 (16Q1, 28Q2, 12Q3, 6Q4, two whithout Q)	Q_{AIS}	AIS
1.	Amino-functionalized silicones processed as porous dual covalent/supramolecular networks for pressure sensing; **B.-I. Ciubotaru, M.-F. Zaltariov, M. Dascalu, A. Bele, A. Bargan, M. Cazacu**; Reactive and Functional Polymers 194, 105792 (2023) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534
2.	Ferronematic Co(II) complex: an active filler for magnetically actuated soft materials; **M. Damoc,** V. Tiron, **C. Tugui**, C.D. Varganici, **A.-C. Stoica**, G. Novitchi, **M. Dascalu, M. Cazacu**; Small 2307006 (2023) (FI_{2023} = 13.3) (Q_{FI} = Q1)	Q1	2.545
3.	The impact of the addition of vitamins on a silicone lining material to the oral	Q3	0.531

	mucosa tissue-evaluation of the biocompatibility, hydrolytic stability and histopathological effect; I. Gradinaru, **B.I. Ciubotaru**, M. Butnaru, F.D. Cojocaru, C.T. Covasa, T. Bibire, **M. Dascalu, A. Bargan, M. Cazacu, M.F. Zaltariov**; Medicina 59, 1936 (2023) (FI_{2023} = 2.6) (Q_{FI} =Q2)		
4.	All-Silicone 3D printing technology: toward highly elastic dielectric elastomers and complex structures; **C. Tugui, M. Cazacu**, D.M. Manoli, A. Stefan, M. Duduta; ACS Applied Polymer Materials 5 (10), 7936-7946 (2023) (FI_{2023} = 5.0) (Q_{FI} = Q2)	Q1	0.818
5.	A Manganese (II) 3D Metal–Organic Framework with siloxane-spaced dicarboxylic ligand: synthesis, structure, and properties; **A.C. Stoica, M. Damoc, S. Shova**, G. Novitchi, **M. Dascalu, M. Cazacu**; Inorganics 11(1) 21 (2023) (FI_{2023} = 2.9) (Q_{FI} = Q2)	Q2	0.426
6.	Micellization turned on dual fluorescence and room temperature phosphorescence by pseudo-ESIPT in thiadiazole derivatives; **M. Damoc**, R.I. Tigoianu, **A.C. Stoica**, A.M. Macsim, **M. Dascalu, S. Shova, M. Cazacu**; Journal of Physical Chemistry C 127 (1), 99-109 (2023) (FI_{2023} = 3.7) (Q_{FI} = Q2)	Q2	0.827
7.	Mucoadhesive mesoporous silica particles as versatile carriers for doxorubicin delivery in cancer therapy; **M.F. Zaltariov, B.I. Ciubotaru**, A. Ghilan, D. Peptanariu, M. Ignat, **M. Iacob**, N. Vornicu, **M. Cazacu**; International Journal of Molecular Sciences 24, 14687 (2023) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.028
8.	Fully carboxy-functionalized polyhedral silsesquioxanes as polar fillers to enhance the performance of dielectric silicone elastomers; **M. Dascalu, A.-C. Stoica, A. Bele**, L. Yu, D. Ionita, A.-L. Vasiliu, A.L. Skov, **C. Racles, M. Cazacu**; Polymer 289, 126492 (2023) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601
9.	From passive to emerging smart silicones; **M. Cazacu, M. Dascalu, G.T. Stiubianu, A. Bele, C. Tugui, C. Racles**; Reviews in Chemical Engineering 39 (6), 941-1003 (2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q1	1.014
10.	Tuning of morphology and surface properties of porous silicones by chemical modification; **C. Racles**, A.L. Vasiliu; Appl. Sci. 13, 10899 (2023) (FI_{2023} = 2.7) (Q_{FI} = Q3)	Q3	0.414
11.	Molecular and silica-supported metal complexes as new catalysts for hydrosilylation; **C. Racles;** Rev. Roum. Chim. 68(5-6), 233-240 (2023) (FI_{2023} = 0.5) (Q_{FI} = Q4)	Q4	0.052
12.	Bentonite as an active natural filler for silicone leading to piezoelectric-like response material; **M. Iacob,** V. Tiron, **G.T. Stiubianu, M. Dascalu**, L. Hernandez, C.D. Varganici, **C. Tugui, M. Cazacu**; Journal of Materials Research and Technology 17, 79-94 (2022) (FI_{2023} = 6.4) (Q_{FI} = Q1)	Q1	0.812
13.	Catalyst-free crosslinked sustainable functional silicones by supramolecular interactions; **B.I. Ciubotaru, M. Dascalu, M.F. Zaltariov**, A.M. Macsim, **M. Damoc, A. Bele, C. Tugui**, C.D. Varganici, **M. Cazacu**; Reactive and Functional Polymers 181, 105419/1-19 (2022) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534
14.	Silicones with different crosslinking patterns: Assessment from the perspective of their suitability for biomaterials; **B.I. Ciubotaru, M.F. Zaltariov, C. Tugui,** I.E. Stoleru, D. Peptanariu, **G.T. Stiubianu, N.** Vornicu, **M. Cazacu**; Surfaces and Interfaces 32, 102168 (2022) (FI_{2023} = 6.2) (Q_{FI} = Q2)	Q1	0.696
15.	One-pot reduction-hydrophobization of heterogenized platinum with 1,1,3,3-tetramethyldisiloxane; **A.C. Stoica, M. Damoc,** L. Baltag, A.M. Macsim, A.	Q2	0.391

	Nicolescu, M.V. Dinu, G. Ionita, M. **Cazacu;** Applied Organometallic Chemistry 36 (1), e6485 (2022) (FI_{2023} = 3.9) (Q_{FI} = Q2)		
16.	Scalable silicone composites for thermal management in flexible stretchable electronics; **G.T. Stiubianu, A. Bele**, M. Grigoras, **C. Tugui, B.I. Ciubotaru, M.F. Zaltariov**, F. Borza, L.G. Bujoreanu, **M. Cazacu**; Batteries 8(8), 95 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q2	0.861
17.	Emulsion gels as precursors for porous silicones and all-polymer composites-a proof of concept based on siloxane stabilizers; **C. Racles, A. Bele,** A.L. Vasiliu, L. Sacarescu; Gels 8(6), 377 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626
18.	Chemical attachment of 5-nitrosalicylaldimine motif to silatrane resulting in an organic–inorganic structure with high medicinal significance, **M.-F. Zaltariov**, M. Turtoi, D. Peptanariu, A.-M. Macsim, L. Clima, C. Cojocaru, N. Vornicu, **B.-I. Ciubotaru, A. Bargan**, M. Calin, **M. Cazacu;** Pharmaceutics 2022, 14, 2838. (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q1	0.756
19.	Soft silicone elastomers exhibiting large actuation strains; **A. Bele, M. Dascalu, C. Tugui, G.T. Stiubianu**, C.D. Varganici, **C. Racles, M. Cazacu**, A. Ladergaard Skov; Journal of Applied Polymer Science 139(22), 52261/1-11 (2022) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365
20.	Binary silicone elastomeric systems with stepwise crosslinking as a tool for tuning electromechanical behavior; **A. Bele**, L. Yu, **M. Dascalu,** D. Timpu, L. Sacarescu, C.D. Varganici, D. Ionita, D. Isac, A.L. Vasiliu; Polymers 14, 211/1-13 (2022) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606
21.	Octakis(carboxyalkylthioethyl)silsesquioxanes and derived metal complexes: Synthesis, characterization and catalytic activity assessments; **M. Dascalu, A.C. Stoica, A. Bele,** A.M. Macsim, **A, Bargan,** C.D. Varganici, **G.T. Stiubianu, C.Racles, S. Shova, M. Cazacu**; Journal of Inorganic and Organometallic Polymers and Materials 32, 3955-3970 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355
22.	Fourteen-member silacycle built by cascade reactions induced by a platinum catalyst; **M. Damoc, A.C. Stoica**, D.A. Blaj, **A.M. Macsim, M. Dascalu**, C. Cojocaru, **S. Shova, M. Cazacu**; Journal of Molecular Structure 1269, 133760/1-8 (2022) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331
23.	Some theoretical and experimental evidence for particularities of the siloxane bond; **A.C. Stoica, M. Damoc**, C. Cojocaru, A. Nicolescu, **S. Shova, M. Dascalu, M. Cazacu**; Molecules 27(23), 8563 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660
24.	All-polymer piezo-composites for scalable energy harvesting and sensing devices; **G.T. Stiubianu, A. Bele, A. Bargan,** V.O. Potolinca, M. Asăndulesa, **C. Tugui,** V. Tiron, C. Hamciuc, **M. Dascalu, M. Cazacu**; Molecules *27*(23), 8524 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660
25.	Functionalized mesoporous silica as doxorubicin carriers and cytotoxicity boosters; **C. Racles, M.F. Zaltariov**, D. Peptanariu, T. Vasiliu, **M. Cazacu**; Nanomaterials 12(11), 1823 (2022) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712
26.	2D coordination polymers and ionic complexes of the nickel(II) and zinc(II) cyclam cations with trigonal carboxylate linkers based on triazine core. Crystal structures, supramolecular catenation and spectral characterization; R.I. Gurtovyi, S.P. Gavrish, L.V. Tsymbal, M.O. Apostu, **M. Cazacu, S. Shova,** Y.D. Lampeka; Polyhedron 221, 115870 (2022) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274
27.	Dual crystalline-amorphous salen-metal complexes behave like nematic droplets	Q1	0.577

	with AIEgens vistas; **M. Dămoc, A.C. Stoica, M. Dascălu**, M. Asăndulesa, **S. Shova, M. Cazacu**; Dalton Transactions 50, 13841-13858 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)		
28.	From amorphous silicones to Si-containing highly ordered polymers: Some Romanian contributions in the field; **M. Cazacu, C. Racleș, M. F. Zaltariov, M. Dascălu, A. Bele, C. Țugui, A. Bargan, G. Știubianu**; Polymers 13(10), 1605 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606
29.	Synthesis, characterization, and some metal complexes of bis(isocyanide)disiloxane, showing catalytic activity; **C. Racles, M.F. Zaltariov**, M. Silion, M. Avadanei, A.M. Macsim, A. Nicolescu; Applied Organometallic Chemistry 36(3), e6543 (2022) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391
30.	Advanced and biomedical applications of schiff-base ligands and their metal complexes: A review; **A. Soroceanu, A. Bargan;** Crystals 12(10), 1436 (2022) (FI_{2023} = 2.7) (Q_{FI} = Q2)	Q2	0.424
31.	Silicone elastomers with improved electromechanical performance using slidering polymers; **A. Bele, M. Dascalu, C. Tugui**, A. Farcas; Journal of Polymer Research 29, 202/1-9 (2022) (FI_{2023} = 2.8) (Q_{FI} = Q3)	Q3	0.317
32.	Elastic composites with PDMS matrix and polysulfone-supported silver nanoparticles as filler; **C. Racleș**, M. Asăndulesa, V. Tiron, **C. Țugui**, N. Vornicu, **B.I. Ciubotaru**, M. Mičušík, M. Omastová, A.L. Vasiliu, C. Ciomaga; Polymer 217, 123480 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601
33.	Two-dimensional coordination polymers containing permethylated motifs - promising candidates for 2D emerging materials. Structural, behavioral and functional particularities; **A.C. Stoica, M. Dămoc, M.F. Zaltariov, C. Racleș, M. Cazacu**; Reactive and Functional Polymers 168, 105039 (2021) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534
34.	New heterogeneous catalysts containing platinum group metals recovered from a spent catalytic converter; **C. Racleș, M.-F. Zaltariov,** A. Coroabă, M. Silion, C. Diac, A. Dascălu, **M. Iacob, M. Cazacu;** Applied Organometallic Chemistry 35, e6417 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391
35.	Octakis(phenyl)-T_8-silsesquioxane-filled silicone elastomers with enhanced electromechanical capability; **M. Dascălu, M. Iacob, C. Țugui, A. Bele, G.-T. Știubianu, C. Racleș, M. Cazacu**; Journal of Applied Polymer Science 138 (14), 50161 (2021) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365
36.	Silanol-functionalized tetranuclear copper complex and its nanoscale-heterogenization by immobilization on glass surface from solution; **A.C. Stoica, M. Dămoc**, V. Tiron, **M. Dascălu**, A. Coroabă, **S. Shova, M. Cazacu**, Journal of Molecular Liquids 344, 117742 (2021) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668
37.	Siloxane matrix molecular weight influences the properties of nanocomposites based on metal complexes and dielectric elastomer; **A. Soroceanu, G. Știubianu**; Materials 14, 3352 (2021) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511
38.	Slow magnetic relaxation in $\{[CoCxAPy)]2.15H_2O\}_n$ MOF built from ladder-structured 2D layers with dimeric SMM rungs; A. Arauzo, E. Bartolome, J. Luzon, P. Alonso, **A. Vlad, M. Cazacu, M.F. Zaltariov, S. Shova**, J. Bartolome, C. Turta; Molecules 26(18), 5626 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q3	0.660
39.	Multi-stimuli responsive free-standing films of DR1- grafted silicones; **C. Racles**, C. Ursu, **M. Dascalu**, M. Asandulesa, V. Tiron, **A. Bele, C. Tugui**, S. Teodoroff-	Q1	2.029

	Onesim; Chemical Engineering Journal 401, 126087 (2020) (FI_{2023} = 15.1) (Q_{FI} = Q1)		
40.	Silicone dielectric elastomers optimized by crosslinking pattern - a simple approach to high-performance actuators; **C. Tugui, G.T. Stiubianu**, M.S. Serbulea, M. Cazacu; Polymer Chemistry 11, 3271-3284 (2020) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.802
41.	Three reactions, one catalyst: A multi - purpose platinum(iv) complex and its silica - supported homologue for environmentally friendly processes; **C. Racles, M.F. Zaltariov, M. Damoc, A.M. Macsim, M. Iacob**, L. Sacarescu; Applied Organometallic Chemistry 34(3) e5422 (15pp) (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391
42.	Permethylated dinuclear Mn(III) coordination nanostructure with stripe-ordered magnetic domains; **S. Shova**, V. Tiron, **A. Vlad**, G. Novitchi, D.G. Dumitrescu, M. Damoc, **M.-F. Zaltariov, M. Cazacu**; Applied Organometallic Chemistry e5957 (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391
43.	Keto-enol tautomerism in new silatranes Schiff bases tailed with different substituted salicylic aldehyde; **A. Bargan, M.F. Zaltariov, A. Vlad**, A.M.C. Dumitriu, **A. Soroceanu**, A.M. Maxim, **M. Dascalu**, C.D. Varganici, **M. Cazacu, S. Shova**; Arabian Journal of Chemistry 13, 3100-3111 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.679
44.	Nanoscale coordination polymer of dimanganese(II) as infinite, flexible nanosheets with photoswitchable morphology; **S. Shova, A. Vlad**, M. Damoc, V. Tiron, **M. Dascalu**, G. Novitchi, C. Ursu, M. Cazacu; European Journal of Inorganic Chemistry, (21), 2043-2054 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q2)	Q2	0.393
45.	Synthesis, structural characterization and properties evaluation of two new zwitterionic siloxane compounds; **A. Bargan, M. Cazacu, M. Dascalu**, A.-M. Macsim, **A. Soroceanu**, I.F. Macsim; Polyhedron 179, (2020) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274
46.	Silicone elastomers filled with rare earth oxides; **M. Iacob**, A.Airinei, M. Asandulesa, **M. Dascalu**, N. Tudorachi, L. Hernandez, **M. Cazacu**; Materials Research Express 7(3), 035703 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q3)	Q4	0.260
47.	A 2D coordination polymer assembled from a nickel (II) tetraazamacrocyclic cation and 4,4'-(dimethylsilanediyl)diphthalate(3-) linker; S.P. Gavrish, **S. Shova, M. Cazacu**, Y.D. Lampeka; Acta Crystallographica Section C: Structural Chemistry 76 (Part 3), 419-426 (2020) (FI_{2023} = 0.8) (Q_{FI} = Q4)	Q4	0.117
48.	Syntheses and crystal structures of the one-dimensional coordination polymers formed by $[Ni(cyclam)]^{2+}$ cations and 1,3-bis(3-carboxypropyl)tetramethyldisiloxane anions in different degrees of deprotonation; S.P. Gavrish, **S. Shova, M. Cazacu, M. Dascalu**, Y.D. Lampeka; Acta Crystallographica Section E: Crystallographic Communications 76(Part 3), 446-451(2020) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
49.	Crystal structure of the onedimensional coordination polymer formed by the macrocyclic $[Ni(cyclam)]^{2+}$ cation and the dianion of diphenylsilanediylbis(4-benzoic acid); S.P. Gavrish, **S. Shova, M. Cazacu**, Y.D. Lampeka; Acta Crystallographica Section E: Crystallographic Communications 76, 929-932 (2020) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
50.	Coordination compounds with siloxane/silane-containing ligands capable of self-	Q2	0.524

	assembly at nano/ micro scale in solid state and in solution, M.F. Zaltariov, **M. Cazacu**, Advances in Inorganic Chemistry, 76, 155-196, 2020. (FI_{2023} = 2.93) (Q_{FI} = Q2)		
51.	Salen-type Schiff bases spaced by the highly flexible and hydrophobic tetramethyldisiloxane motif. Some synthetic, structural and behavioral particularities M. Damoc, A.C. Stoica, A. M. Macsim, M. Dascalu, M. F. Zaltariov, **M. Cazacu** Journal of Molecular Liquids, 316, Article 113852/1-11 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668
52.	Preparation and characterisation of stacked planar actuators; **C Tugui,** M.S. Serbulea; **M. Cazacu;** Chemical Engineering Journal 364, 217-225 (2019) (FI_{2023} = 15.1) (Q_{FI} = Q1)	Q1	2.029
53.	Dinuclear manganese(III) complexes with bioinspired coordination and variable linkers showing weak exchange effects: a synthetic, structural, spectroscopic and computation study; **S. Shova, A. Vlad, M. Cazacu**, J. Krzystek, A. Ozarowski, M. Malcek, L. Bucinsky, P. Rapta, J. Cano, J. Telser, V.B. Arion; Dalton Trans., 48(18), 5909-5922 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
54.	Photo-oxidative degradation of doxorubicin with siloxane MOFs by exposure to daylight; **C. Racles, M.F. Zaltariov**, M. Silion, A.M. Macsim, V. Cozan; Environmental Science and Pollution Research 26(19), 19684–19696 (2019) (FI_{2023} = 5.8) (Q_{FI} = Q1)	Q3	0.651
55.	From ultra-high molecular weight polydimethylsiloxane to super-soft Elastomer; **C. Tugui**, V. Tiron, **M. Dascalu**, L. Sacarescu, **M. Cazacu**; European Polymer Journal 120, 109242 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q1)	Q1	0.671
56.	Silver thin films generated by Pulsed Laser Deposition on plasma-treated surface of silicones to get dielectric elastomer transducers; **C Tugui**, C. Ursu, **M.F. Zaltariov,** M. Aflori, M. Mičušík, M. Omastová, **M. Cazacu**; Surface & Coatings Technology 358, 282-292 (2019) (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q1	0.644
57.	Copper(II) complexes with spherical morphology generated in one step by amphiphilic ligands: in situ view of the self-assembling, characterization, catalytic activity; **G.-O. Turcan-Trofin, M.-F. Zaltariov, M. Iacob**, V. Tiron, F. Branza, **C. Racles, M. Cazacu**; Colloids and Surfaces A: Physicochemical and Engineering Aspects, 580, 123756 (2019) (FI_{2023} = 5.2) (Q_{FI} = Q2)	Q3	0.6
58.	Hydrophobic, amorphous metal-organic network readily prepared by complexing the aluminum ion with a siloxane spaced dicarboxylic acid in aqueous medium; **M. Cazacu, G.O. Turcan - Trofin, A. Vlad, A. Bele, S. Shova**, A. Nicolescu, **A. Bargan**; J. Appl. Polym. Sci. 136 (9), 47144 (2019) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365
59.	Amphiphilic silicone-bridged bis-triazoles as effective, selective metal ligands and biologically active agents in lipophilic environment; **G.O. Turcan-Trofin, M.-F. Zaltariov**, G. Roman, **S. Shova**, N. Vornicu, M. Balan-Porcarasu, D. L. Isac, A. Neamtu, **M. Cazacu**; J. Mol.Liq. 294, 111560 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668
60.	Linear and cyclic siloxanes functionalized with polar groups by thiol-ene addition: Synthesis, characterization and exploring some material behaviour; **G.-O. Turcan-Trofin**, M. Asandulesa, M. Balan-Porcarasu, C.-D. Varganici, V. Tiron, **C. Racles, M. Cazacu**; J. Mol. Liq. 282, 187-196 (2019) **(FI_{2023} = 6.0) (Q_{FI} = Q2)**	Q2	0.668

61.	Synthesis, structural characterization and biological studies of new Schiff bases containing trimethylsilyl groups; **M.F. Zaltariov**, M. Avadanei, M. Balan, D. Peptanariu, N. Vornicu, **S. Shova**; J. Mol. Struct. 1175, 624-631 (2019) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331
62.	Nanomaterials developed by processing iron coordination compounds for biomedical application; **M. Iacob, C. Racles, M. Dascalu, C Tugui,** V. Lozan, **M. Cazacu**; Journal of Nanomaterials Article ID 2592974 (2019). (FI_{2023} = 3.791) (Q_{FI} = Q3)	Q3	0.439
63.	Siloxane-based compounds with tailored surface properties for health and environment; **C. Racles, M. Cazacu, M. Zaltariov, M. Iacob**, M. Butnaru M; Phosphorus, Sulfur, and Silicon and the Related Elements 194(10), 972-977 (2019) (FI_{2023} = 1.3) (Q_{FI} = Q4)	Q4	0.143
64.	Nickel complexes of guanidine functionalized trisiloxane; L. Pricop, M.E. Fortuna, D. Popovici, M. Asandulesa, **C. Racles, M.F. Zaltariov**, N. Marangoci, M. Savin, V. Harabagiu; J. Inorg. Organomet. Polym. https://doi.org/10.1007/s10904-019-01161-9 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355
	Publications on related fields (6Q1, 8Q2, 3Q3, 1Q4, one without Q)		
65.	Detection of nitroaromatics by a Zn(II)-containing coordination polymer derived from a 1,2,3-triazole-based tricarboxylate ligand; **M. Dascălu**, A.L. Chibac-Scutaru, G. Roman; Journal of Molecular Liquids 386, 122457 (2023) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668
66.	Preliminary study concerning the adaptation of a periodontal dressing material to the inclusion of therapeutic agents; I. Grădinaru, **B.-I. Ciubotaru, M. Dascălu**; Archives of Metallurgy and Materials, *accepted for publication* (FI_{2023} = 0.6) (Q_{FI} = Q4)	Q4	0.104
67.	Hybrid green bionanocomposites based on chitosan/starch/gelatin and metallic nanoparticles for biological applications; D. Filip, D. Macocinschi, S.L. Nica, M. Asandulesa, B. Condurache, E. Stoleru, D.M. Rata, **A. Bargan, M.F. Zaltariov**; International Journal of Biological Macromolecules, 253 (8), 127571 (2023) (FI_{2023} = 8.2) (Q_{FI} =Q1)	Q1	0.918
68.	The influence of beverages on resin composites: an in vitro study; I. Gradinaru, A.L. Vasiliu, **A. Bargan**, L.E. Checherita, **B.I. Ciubotaru**, A.O. Armencia, B. Istrate, C.G. Dascalu, M.E. Antohe; Biomedicines 11(9), 2571(2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q2	0.804
69.	Crystal structures of 5-bromo-1-arylpyrazoles and their halogen bonding features; M.M. Popa, **S. Shova, M. Dascalu**, M.R. Caira, F. Dumitrascu; CrystEngComm 25, 86-94 (2023) (FI_{2023} = 3.1) (Q_{FI} = Q3)	Q2	0.464
70.	Evaluation of the behaviour of dental composites related to different types of drincks by the dynamic vapor sorption method; I. Gradinaru, A.L. Vasiliu, **A. Bargan, B.I. Ciubotaru**, A.O. Armencia, L.L. Hurjui, L.E. Checherita, C.G. Dascalu, M.E. Antohe, Romanian Journal of Oral Rehabilitation 15(2) (2023) (FI_{2023} = 0.7) (Q_{FI} = Q4)	-	0.027
71.	Materials based on quaternized polysulfones with potential applications in biomedical field: structure-properties relationship; **A. Bargan,** M.D. Onofrei, I. Stoica, F. Doroftei, S. Dunca, A. Filimon; International Journal of Molecular Sciences 23(9), 4721 (2022) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.030
72.	Mucoadhesive and antimicrobial allantoin/β cyclodextrins-loaded carbopol gels	Q1	0.626

	as scaffolds for regenerative medicine; D. Filip, D. Macocinschi, **M.F. Zaltariov**, C.A. Gafitanu, C.G. Tuchilus, **A. Bele**, **B.I. Ciubotaru**, A. Stoleru, **A. Bargan**; Gels 8(7), 416 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)		
73.	Hydroxypropyl cellulose/pluronic-based composite hydrogels as biodegradable mucoadhesive scaffolds for tissue engineering; D. Filip, D. Macocinschi, **M.-F. Zaltariov**, **B.-I. Ciubotaru**, **A. Bargan**, C.-D. Varganici, A.-L. Vasiliu, D. Peptanariu, M. Balan-Porcarasu, M.-M. Timofte-Zorila; Gels 8(8), 519 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626
74.	Biocompatible self-assembled hydrogen-bonded gels based on natural deep eutectic solvents and hydroxypropyl cellulose with strong antimicrobial activity; D. Filip, D. Macocinschi, M. Balan-Porcarasu, C.-D. Varganici, R.P. Dumitriu, D. Peptanariu, C.G. Tuchilus, **M.-F. Zaltariov**; Gels, 8(10), 666 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626
75.	MWCNTs composites-based on new chemically modified polysulfone matrix for biomedical applications; S.L. Nica, **M.F. Zaltariov**, D. Pamfil, **A. Bargan**, D. Rusu, D.M. Rata, C. Gaina, L.I. Atanase; Nanomaterials 12 (9), 1502 (2022) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712
76.	FTIR investigation on crystallinity of hydroxypropyl methyl cellulose - based polymeric blends; **M.F. Zaltariov**; Cellulose Chemistry and Technology 55 (9-10), 981-988 (2021) (FI_{2023} = 1.3) (Q_{FI} = Q3)	Q3	0.132
77.	Self-assembly and rheological behavior of chloramphenicol-based poly (ester ether) urethanes, **M.F. Zaltariov**, D. Filip, D. Macocinschi, C. Ibănescu, M. Danu, L. Săcărescu; Journal of Polymer Research 28(5), 1-15 (2021) (FI_{2023} = 2.8) (Q_{FI} = Q3)	Q3	0.317
78.	Comparative investigation of collagen-based hybrid 3D structures for potential biomedical applications; G. David, **A. Bargan**, M. Drobotă, **A. Bele**, I. Roșca; Materials 14(12), 3313 (2021) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511
79.	Blends of sodium deoxycholate-based poly(ester ether)urethane ionomer and hydroxypropylcellulose with mucosal adhesiveness; D. Macocinschi, D. Filip, **B.-I. Ciubotaru**, R.P. Dumitriu, C.-D. Varganici, **M.-F. Zaltariov**; International Journal of Biological Macromolecules 162, 1262-1275 (2020) (FI_{2023} = 8.2) (Q_{FI} = Q1)	Q1	0.920
80.	Development and Performance of Bioactive Compounds-Loaded Cellulose/Collagen/Polyurethane Materials; I. Spiridon, N. Anghel, M.V. Dinu, S. Vlad, **A. Bele, B.I. Ciubotaru**, L. Verestiuc, D. Pamfil; Polymers 12(5), 1191 (2020) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606
81.	New approaches for the development of cellulose acetate/tetraethyl orthosilicate composite membranes: Rheological and microstructural analysis; A.M. Dobos, A. Filimon, **A. Bargan, M.F. Zaltariov**; Journal of Molecular Liquids 113129 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668
82.	X-ray structure elucidation of a Pt-metalloporphyrin and its application for obtaining sensitive AuNPs-plasmonic hybrids capable of detecting triiodide anions; E. Fagadar-Cosma, A. Lascu, **S. Shova, M.F. Zaltariov**, M. Birdeanu, L. Croitor, A. Balan, D. Anghel, S. Stamatin; Int. J. Mol. Sci. 20, 710 (2019) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.030
83.	Micellar and rheological properties of some sodium deoxycholate-based poly(ester ether)urethane ionomer biomaterials in N,N-dimethylformamide	Q2	0.668

	solutions; D. Filip, D. Macocinschi, S. Vlad, C. Ibanescu, M. Danu, **M.F. Zaltariov**; J. Mol. Liq. 285, 451-458 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q2)		

** at least 2 team members or main author*

Extra publications based on national and international collaborations (2019-2023): 149 (37Q1, 43Q2, 42Q3, 10Q4, 17 without Q).

No.	Articles	Q_{AIS}	AIS
1.	Biomaterials based on chitosan and polyvinyl alcohol as a drug delivery system with wound-healing effects; S.P. Gherman, G. Biliuta, **A. Bele**, A.M. Ipate, R.I. Baron, L. Ochiuz, A.F. Spac, D.E. Zavastin; Gels 9(2), 122 (2023) (FI_{2023} = 4.6) **(Q_{FI} = Q1)**	Q1	0.626
2.	Evaluation of poly (vinyl alcohol)–xanthan gum hydrogels loaded with neomycin sulfate as systems for drug delivery; D. Serbezeanu, M.M. Iftime, G.L. Ailiesei, A.M. Ipate, **A. Bargan**, T. Vlad-Bubulac, C.M. Rîmbu; Gels 9(8), 655(2023) (FI_{2023} = 4.6) **(Q_{FI} = Q1)**	Q1	0.626
3.	Xanthan or esterified xanthan/cobalt ferrite-lignin hybrid materials for methyl blue and basic fuchsine dyes removal: equilibrium, kinetic and thermodynamic studies; I. Apostol, N. Anghel, F. Doroftei, **A. Bele**, I. Spiridon; Materials Today Chemistry 27, 101299 (2023) (FI_{2023} = 7.3) **(Q_{FI} = Q1)**	Q1	1.045
4.	Bioactive materials based on hydroxypropyl methylcellulose and silver nanoparticles: structural-morphological characterization and antimicrobial testing; A. Filimon, M.D. Onofrei, **A. Bargan**, I. Stoica, S. Dunca; Polymers 15(7), 1625 (2023)(FI_{2023} = 5.0) **(Q_{FI} = Q1)**	Q1	0.606
5.	Cellulose acetate/silica composites: Physicochemical and biological characterization; A.M. Dobos, **A. Bargan,** S. Dunca, C.M. Rîmbu, A. Filimon; Journal of the Mechanical Behavior of Biomedical Materials; 144, 106002 (2023) (FI_{2023} = 3.9) **(Q_{FI} = Q2)**	Q2	0.692
6.	The straightforward approach of tuning the photoluminescence and electrical properties of encapsulated PEDOT end-capped by pyrene; A. Farcas, **M. Damoc**, M. Asandulesa, P.H. Aubert, R.I. Tigoianu, L.E. Ursu; Journal of Molecular Liquids 376, 121461 (2023) (FI_{2023} = 6.0) **(Q_{FI} = Q2)**	Q2	0.668
7.	Enhancing natural polymers-based materials using montmorillonite: preparation, characterization, and environmental applications; I. Spiridon, **A. Bele**, I. Apostol, M.V. Dinu, N. Anghel; Journal of Polymers and the Environment https://doi.org/10.1007/s10924-023-03089-1 (2023) (FI_{2023} = 5.3) **(Q_{FI} =Q2)**	Q2	0.526
8.	Synthesis of crosslinked microparticles based on glycidyl methacrylate and N - vinylimidazole; M.A. Trofin, S. Racovita, S. Vasiliu, **A. Bargan**, F. Bucatariu, A.L. Vasiliu, M. Mihai; Macromolecular Chemistry and Physics 2300253, (2023) (FI_{2023} = 2.5) (Q_{FI} = Q3)	Q2	0.394
9.	Application of surface-modified nanoclay in a hybrid adsorption-ultrafiltration process for enhanced nitrite ions removal: chemometric approach vs. machine learning; C. Cojocaru, P. Pascariu, A.C. Enache, **A. Bargan**, P. Samoila; Nanomaterials 13(4), 697 (2023) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712
10.	Synthesis, properties and adsorption kinetic study of new cross-linked composite materials based on polyethylene glycol polyrotaxane and polyisoprene/semi-rotaxane, A.M. Resmerita, **A. Bargan**, C. Cojocaru, A. Farcas; Materials 16(16),	Q3	0.511

	5594 (2023) (FI_{2023} =3.4) (Q_{FI} = Q3)		
11.	Structural diversity in proline-based lead bromide chiral perovskites; V.Y. Sirenko, O.I., Kucheriv, I.O., Fritsky, E. Gumienna-Kontecka, I.A. Dascalu, **S. Shova**, I.A. Gural'skiy; Dalton Transactions 52(30), 10545-10556 (2023) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
12.	How metal nuclearity impacts electrocatalytic H_2 production in thiocarbohydrazone-based complexes; M. Papadakis, A. Barrozo, L. Delmotte, T. Straistari, **S. Shova**, M. Réglier, V. Krewald, S. Bertaina, R. Hardré, M. Orio; Inorganics 11(4), 149 (2023) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601
13.	Synthesis, characterization and cytotoxic evaluation of new pyrrolo[1,2-b]pyridazines obtained via mesoionic oxazolo-pyridazinones; B.-C. Ivan; S.-F. Barbuceanu, C.M. Hotnog, O.T. Olaru, A.I. Anghel, R.V. Ancuceanu, M.A. Mihaila, L.I. Brasoveanu, **S. Shova**, C. Draghici, G.M. Nitulescu, F. Dumitrascu; International Journal of Molecular Sciences 24(14), 11642(2023) (FI_{2023} =5.6) (Q_{FI} = Q1)	Q2	1.030
14.	Large ordered moment with strong easy-plane anisotropy and vortex-domain pattern in the kagome ferromagnet Fe_3Sn; L. Prodan, D.M. Evans, S.M. Griffin, A. Ostlin, M. Altthaler, E. Lysne, I.G. Filippova, **S. Shova**, L. Chioncel, V. Tsurkan, I. Kezsmarki; Applied Physics Letters 123 (2), 021901(2023) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q1	0.891
15.	Quantum dots assembled from an aziridinium based hybrid perovskite displaying tunable luminescence; O.A. Semenikhin, O.I. Kucheriv, L. Sacarescu, **S. Shova**, I.A. Gural'skiy; Chemical Communications 59(24), 3566-3569(2023) (FI_{2023} = 4.9) (Q_{FI} =Q2)	Q2	1.033
16.	Synthesis, characterization and magnetochemical study of cobalt, nickel and manganese coordination polymers; O. Cuzan, **S. Shova**, G. Novitchi, V. Lozan; Inorganica Chimica Acta 553, 121526 (2023) (FI_{2023} = 2.8) (Q_{FI} = Q2)	Q3	0.284
17.	Synthesis, characterization and antiproliferative activity of platinum (II) complexes with 3-(2-pyridyl)-N1, 2-methyl-1, 2, 4-triazoles; Y.M. Ohorodnik, D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, **S. Shova**, M.V Babak, M.NM. Milunovic, R.D. Lampeka; Inorganica Chimica Acta 556, 121646 (2023) (FI_{2023} = 2.8) (Q_{FI} = Q2)	Q3	0.284
18.	The role of halogen bonding in the interaction landscape directing the crystal packing in a homologous series of halogenated coumarin derivatives; M.M. Popa, D.G. Dumitrescu, **S. Shova**, I. Man, A. Van der Lee, F. Dumitrascu; Journal of Molecular Structure 1292, 136112 (2023) (FI_{2023} =3.8) (Q_{FI} = Q2)	Q4	0.331
19.	A Chain of vertex-sharing {CoIII2CoII2}n squares with single-ion magnet behavior; M.G. Alexandru, D. Visinescu, **S. Shova**, J. Cano, N. Moliner, F. Lloret, M. Julve; Magnetochemistry 9(5), 130 (2023) (FI_{2023} = 2.7) (Q_{FI} = Q2)	Q3	0.354
20.	Novel strigolactone mimics that modulate photosynthesis and biomass accumulation in chlorella sorokiniana; D.G. Popa, F. Georgescu, F. Dumitrascu, **S. Shova**, D. Constantinescu-Aruxandei, C. Draghici, L. Vladulescu, F. Oancea; Molecules 28 (20) (2023) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660
21.	Synthesis and antimicrobial activity evaluation of homodrimane sesquiterpenoids with a benzimidazole unitquiterpenoids with a benzimidazole unit; L. Lungu, S. Blaja, C. Cucicova, A. Ciocarlan, A. Barba, V. Kulciţki, **S. Shova**, N. Vornicu, E.-I. Geana, I.I. Mangalagiu, A. Aricu; Molecules 28(3), 933 (2023) (FI_{2023} = 4.6)	Q2	0.660

	(Q_{FI} = Q2)		
22.	1,3-Dipolar cycloaddition of cycloimmonium salts and 4-(trimethylsilyl)-3-butyn-2-one to access new functionalized indolizines with potential cytostatic activity; A. Zubas, A. Ghinet, **S. Shova**, E. Bicu; New Journal of Chemistry 47, 3758-3772 (2023) (FI_{2023} = 3.3) (Q_{FI} =Q2)	Q3	0.444
23.	The influence of structural isomerism on luminescence properties of [Re(CO)(2)(dppv)(pbi)] complexes containing cis-1,2-bis(diphenylphosphino)-ethene and 2-(2-pyridyl)benzimidazole ligands; A. Kamecka, A. Kapturkiewicz, **S. Shova**, K. Suwinska; Structural Chemistry 34, 1641-1655 (2023) (FI_{2023} = 1.7) (Q_{FI} = Q3)	Q3	0.187
24.	Iron(III) complexes with ditopic macrocycles bearing crown-ether and bis(salicylidene) isothiosemicarbazide moieties; V.B. Arion, O. Palamarciuc, **S. Shova**, G. Novitchi, P. Rapta; Journal of the Serbian Chemical Society 1-21 (2023) (FI_{2023} = 1.0) **(Q_{FI} = Q4)**	Q4	0.147
25.	Crystal structure of 3-(4-bromophenyl)-5-methyl-1H-pyrazole, $C_{10}H_9BrN_2$; D. Kocovic, S. Mugosa, **S. Shova**, Z.D. Tomic; Zeitschrift für Kristallographie - New Crystal Structures 238 (5) 863-865 (2023) (FI_{2023} = 0.3) (Q_{FI} = Q4)	Q4	0.014
26.	Synthesis and crystal structure of a new copper(II) complex based on 5-ethyl-3-(pyridin-2-yl)-1,2,4-triazole; Y.P. Petrenko, D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, **S. Shova**, R.D. Lampeka; Acta Crystallographica Section E Crystallographic Communications E79, 432-435 (2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
27.	Crystal structures of the complexes containing macrocyclic cations $[M(cyclam)]^{2+}$(M = Ni, Zn) and tetraiodidocadmate($^{2-}$) anion; I.L. Andriichuk, **S. Shova**, Y.D. Lampeka; Acta Crystallographica Section E Crystallographic Communications E79, 821-826 (2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
28.	Crystal structure of bis{3-(3,4-dimethoxyphenyl)-5-[6-(pyrazol-1-yl)pyridin-2-yl]-1,2,4-triazol-3-ato}iron(II)–methanol–chloroform (1/2/2); K. Znovjyak, I.O. Fritsky, T.Y. Sliva, V.M. Amirkhanov, S.O. Malinkin, **S. Shova**, M. Seredyuk; Acta Crystallographica Section E Crystallographic Communications *E79*, 962-966 (2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
29.	Crystal structure of bis(3-carboxy-1-methylpyridinium) octabromide; V.Y. Sirenko, D.D. Naumova, I.A. Golenya, **S. Shova,** I.A. Gural'skiy; Acta Crystallographica Section E Crystallographic Communications E79, 977-981(2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
30.	Carbon dioxide capture from air leading to bis[N-(5-methyl-1H-pyrazol-3-yl-κN2)carbamato-κO]copper(II) tetrahydrate; V.Y. Sirenko, I. S. Kuzevanova, O.S. Vynohradov, D.D. Naumova, **S. Shova**; Acta Crystallographica Section E Crystallographic Communications E79, 988-992 (2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
31.	Crystal structure and Hirshfeld surface analysis of poly[[tetraaqua(μ-1,3,4,7,8,10,12,13,16,17,19,22-dodecaazatetracyclo[8.8.4.13,17.18,12] tetracosane -5,6,14,15,20,21-hexaonato)iron(IV)dilithium] tetrahydrate]; M.O. Plutenko, **S. Shova**, V.A. Pavlenko, I. A. Golenya, I.O. Fritsky; Acta Crystallographica Section E Crystallographic Communications E79, 1059-1062(2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
32.	Novel antimicrobial iodo-dihydro-pyrrole-2-one compounds; C.M. Al-Matarneh, A. Nicolescu, A; I.C. Marinas, M.C. Chifiriuc, **S. Shova**, M. Silion, M. Pinteala; Future Medicinal Chemistry 15(15) (2023) (FI_{2023} = 4.2) (Q_{FI} = Q2)	Q1	0.712
33.	New betulin imine derivatives with antioxidant and selective antitumor activity;	Q3	0.444

	M.M. Iftime, G.L., Ailiesei, **S. Shova**, C. Miron, H. Tanaka, M. Hori, L. Marin, New Journal of Chemistry 47(35), 16551-16563 (2023) (FI_{2023} = 3.3) (Q_{FI} =Q2)		
34.	Cellulose derivative/barium titanate composites with high refractive index, conductivity and energy density; A.I. Barzic, M. Soroceanu, R. Rotaru, F. Doroftei, M. Asandulesa, **C. Tugui**, A.I. Dascalu, V. Harabagiu; Cellulose 29, 863-878 (2022) (FI_{2023} =5.7) (Q_{FI} = Q1)	Q1	0.730
35.	Ultrasound assisted synthesis of heterostructured $TiO_2/ZnFe_2O_4$ and $TiO_2/ZnFe_{1.98}La_{0.02}O_4$ systems as tunable photocatalysts for efficient organic pollutants removal; C. Coromelci, M. Neamtu, M. Ignat, P. Samoila, **M.F. Zaltariov,** M. Palamaru; Ceramics International 48(4), 4829-4840 (2022) (FI_{2023} = 5.2) (Q_{FI} = Q1)	Q1	0.590
36.	Evaluation of physically and/or chemically modified chitosan hydrogels for proficient release of insoluble nystatin in simulated fluids; A.C. Enache, C. Cojocaru, P. Samoila, **A. Bele**, A.C. Bostanaru, M. Mares, V. Harabagiu; Gels 8(8), 495 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626
37.	Imination of microporous chitosan fibers-a route to biomaterials with "*on demand*" antimicrobial activity and biodegradation for wound dressings; A. Anisiei, I. Rosca, I., Sandu, **A. Bele**, X. Cheng, L. Marin; Pharmaceutics 14(1), 117 (2022) (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q2	0.756
38.	Cu(II)/guanidine functionalized disiloxane complex of supramolecular structures for visible light-driven photocatalysis of Congo Red; M.E. Fortuna, L. Pricop, **M.F. Zaltariov**, D. Popovici, M. Ignat, V. Harabagiu, B.C. Simionescu; Polymers, 14(4), 817 (2022) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606
39.	New composite membranes based on PVDF fibers loaded with TiO_2:Sm nanostructures and reinforced with graphene/graphene oxide for photocatalytic applications; P. Pascariu, C. Cojocaru, M. Homocianu, P. Samoila, I. Grecu, **A. Bele**; Surfaces and Interfaces 34, 102382 (2022) (FI_{2023} = 6.2) (Q_{FI} = Q2)	Q1	0.696
40.	Equilibrium, kinetic, and thermodynamic studies of new materials based on xanthan gum and cobalt ferrite for dye adsorption; I. Spiridon, I. Apostol, N.C. Anghel, **M.F. Zaltariov**; Applied Organometallic Chemistry 36(6), e6670 (2022) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391
41.	Synthesis, structural characterization, photophysical study and investigation as fluorescent sensor towards metal ions of 1,2,3-triazole-azaindene hybrids; L. Sacarescu, **M. Dascalu**, A.L. Chibac-Scutaru, G. Roman; Journal of Photochemistry and Photobiology A: Chemistry 433, 114160/1-13 (2022) (FI_{2023} = 4.3) (Q_{FI} = Q2)	Q3	0.473
42.	Amphiphilic chitosan porous membranes as potential therapeutic systems with analgesic effect for burn care; A.C. Enache, P. Samoila, C. Cojocaru, **A. Bele**, A.C. Bostanaru, M. Mares, V. Harabagiu; Membranes 12(10), 973 (2022) (FI_{2023} = 4.2) (Q_{FI} = Q2)	Q2	0.530
43.	Composite materials based on gelatin and iron oxide nanoparticles for MRI accuracy; M. Drobota, S. Vlad, L.M. Gradinaru, **A. Bargan**, I. Radu, M. Butnaru, C.M. Rimbu, R.C. Ciobanu, M. Aflori; Materials 15(10), 3479 (2022) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511
44.	Mechanical properties and equilibrium swelling characteristics of some polymer composites based on ethylene propylene diene terpolymer (EPDM) reinforced with hemp fibers; M.D. Stelescu, A. Airinei, **A. Bargan**, N. Fifere, M., Georgescu,	Q3	0.511

	M. Sonmez, M. Nituica, L. Alexandrescu, A. Stefan; Materials 15(19), 6838 (2022) (FI_{2023} = 3.4) (Q_{FI} = Q3)		
45.	Mesitylene tribenzoic acid as a linker for novel Zn/Cd metal-organic frameworks; D. Bejan, I.-A. Dascalu, S. Shova, A.F. Trandabat, L.G. Bahrin; Materials 15(12), 4247 (2022) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511
46.	1D iron(II)-1,2,4-triazolic chains with spin crossover assembled from discrete trinuclear complexes; S.I. Shylin, **S. Shova,** H.J. Shepherd, V. Ksenofontov, W. Tremel, I.A. Gural'skiy; Dalton Transactions 51, 2364-2369 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
47.	Diastereomeric dinickel(II) complexes with non-innocent bis(octaazamacrocyclic) ligands: isomerization, spectroelectrochemistry, DFT calculations and use in catalytic oxidation of cyclohexane; A. Dobrov, D. Darvasiová, M. Zalibera, L. Bučinský, I. Jelemenská, P. Rapta, **S. Shova,** D.G. Dumitrescu, M.A. Andrade, L.M.D.R.S.Martins, A.J.L. Pombeiro, V.B. Arion; Dalton Transactions 51, 5151-5167 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
48.	Chiral 2D organic-inorganic hybrid perovskites based on L-histidine; V. Sirenko, O.I. Kucheriv, E. Gumienna-Kontecka, I.A. Gural'skiy, **S. Shova**; Dalton Transactions 43, 51, 16536-16544 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.750
49.	Investigation by chemical substitution within 2p-3d-4f clusters of the cobalt(II) role in the magnetic behavior of [vdCoLn]2 (vd = verdazyl radical); G. Novitchi, **S. Shova**, C. Train; Inorganic Chemistry 61(43) (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750
50.	Two-step spin crossover in Hofmann-type coordination polymers [Fe(2-phenylpyrazine)2{M(CN)2}2] (M = Ag, Au); V.M. Hiiuk, S.I. Shylin, D.D. Barakhtii, D.M. Korytko, V.O. Kotsyubynsky, A. Rotaru, **S. Shova**, I.A. Gural'skiy; Inorganic Chemistry 61, 4, 2093–2104 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750
51.	Cooperative spin crossover above room temperature in the iron(II) cyanoborohydride–pyrazine complex; Y.S. Bibik, **S. Shova**, A. Rotaru, S.I. Shylin, I.O. Fritsky, R.D. Lampeka, I.A. Gural'skiy; Inorganic Chemistry 61, 37, 14761–14769 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750
52.	Aziridinium cation templating 3D lead halide hybrid perovskites; H.R. Petrosova, O.I. Kucheriv, **S. Shova,** I.A. Gural'skiy; Chemical Communications, 58, 5745-5748 (2022) (FI_{2023} = 4.9) (Q_{FI} = Q2)	Q2	1.033
53.	Four-step spin crossover in a new cyano-bridged iron-silver coordination polymer. O.I. Kucheriv, S.I. Shylin, V.Y. Sirenko, V. Ksenofontov, W. Tremel, I.A. Dascălu, **S. Shova**, I.A. Gural'skiy; Chemistry A European Journal 28, e202200924(1-7) (2022) (FI_{2023} = 4.3) (Q_{FI} = Q2)	Q2	0.918
54.	New cyanido-bridged complexes of Zn(II) and/or Ag(I) with TPymT and Tptz ligands: synthesis, structural and fluorescent properties; D. Visinescu, **S. Shova**, D.-L. Popescu, M.-G. Alexandru; Crystals *12*(11), 1618 (2022) (FI_{2023} = 2.7) (Q_{FI} = Q2)	Q2	0.424
55.	Highly porous cyanometallic spin-crossover frameworks employing pyridazino[4,5-d]pyridazine bridge, V.M. Hiiuk, **S. Shova**, K.V. Domasevitch, I.A. Gural'skiy; Inorganics 10(11), 195 (2022) (FI_{2023} = 2.9) (Q_{FI} = Q2)	Q2	0.426
56.	New pyrrole derivatives as promising biological agents: design, synthesis, characterization, in silico, and cytotoxicity evaluation; B.-C. Ivan, S.-F. Barbuceanu, C.M. Hotnog, A.I. Anghel, R.V. Ancuceanu, M.A. Mihaila, L.I. Brasoveanu, **S. Shova**, C. Draghici, O.T. Olaru, G. M. Nitulescu, M. Dinu, F.	Q2	1.030

	Dumitrascu; International Journal of Molecular Sciences 23(16), 8854 (2022) (FI_{2023} = 5.6) (Q_{FI} = Q1)		
57.	Mono- and oligonuclear complexes based on a o-vanillin derived Schiff-base ligand: Synthesis, crystal structures, luminescent and electrochemical properties; I.Buta, **S. Shova**, S. Ilies, F. Manea, M. Andruh, O. Costisor; Journal of Molecular Structure 1248, 131439 (2022) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331
58.	Structural-functional changes in a $Ti_{50}Ni_{45}Cu_5$ alloy caused by training procedures based on free-recovery and work-generating shape memory effect; M. Popa, N.M. Lohan, B. Pricop, N. Cimpoesu, M. Porcescu, R.I. Comaneci, **M. Cazacu,** F. Borza, L.G. Bujoreanu; Nanomaterials 12 (12), 2088 (2022) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712
59.	Solvatomorphism, polymorphism and spin crossover in bis[hydrotris(1,2,3-triazol-1-yl)borate]iron(II); O. Horniichuk, K. Ridier, G. Molnar, V. Kotsyubynsky, **S. Shova,** V. Amirkhanov, I.A. Gural'skiy, L. Salmon, A. Bousseksou; New Journal of Chemistry 46, 11734-11740 (2022) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.444
60.	Solid phase luminescence and thermal transformations of palladium(II) complexes with 3-(2-pyridyl)-1,2,4-triazoles; B.V. Zakharchenko, D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, I.V. Fesych, V.S. Starova, N.V. Rusakova, S.S. Smola, **S. Shova,** R.D. Lampeka; Theoretical and Experimental Chemistry 57, 358-365 (2022) (FI_{2023} = 1.0) (Q_{FI} = Q4)	Q4	0.115
61.	Crystal structure of poly[[di-aqua-tetra-μ2-cyanido-platinum(II)iron(II)] methanol 4/3-solvate]: a three-dimensional Hofmann clathrate analogue; V.M. Hiiuk, V. Mykhailovych, S. **Shova,** I.A. Golenya, I. A. Gural'skiy; Acta Crystallographica Section E Crystallographic Communications E78, 216-219 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
62.	*catena*-Poly[[tetra-kis-(3,5-dimethyl-1*H*-pyrazole-κN^2)copper(II)]-μ_2-sulfato-κ^{2}O:O']:crystal structure and Hirshfeld surface analysis of a Cu^{II} coordination polymer; O.S. Vynohradov, A. Dovzhik, V.A. Pavlenko, D.D. Naumova, I.A. Golenya, **S. Shova;** Acta Crystallographica Section E Crystallographic Communications E78, 433-438 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
63.	Synthesis and crystal structure of diaqua(1,4,8,11-tetraazacyclotetradecane)zinc(II) bis(hydrogen 4-phosphonatobiphenyl-4′-carboxylato)(1,4,8,11-tetraazacyclotetradecane)zinc(II); L.V. Tsymbal, I.L. Andriichuk, V. Lozan, **S. Shova,** Y.D. Lampeka; Acta Crystallographica Section E Crystallographic Communications E78, 625-628 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
64.	Crystal structure of bis{3-(3-bromo-4-methoxyphenyl)-5-[6-(1H-pyrazol-1-yl)pyridin-2-yl]-1,2,4-triazol-3-ato}iron(II) methanol disolvate, K. Znovjyak, I. O. Fritsky, T. Y. Sliva, V. M. Amirkhanov, S. O. Malinkin, **S. Shova**, M. Seredyuk; *Acta Cryst.* E**78**, 1138-1142 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
65.	Crystal structure and Hirshfeld surface analysis of dichloridotetrakis(4-methyl-1H-pyrazole-κN 2)nickel(II) acetonitrile disolvate; O.S. Vynohradov; Y.M. Davydenko; V.A. Pavlenko; D.D. Naumova; **S. Shova**; D. Petlovanyi; Acta Crystallographica Section E Crystallographic Communications E78, 1156-1160 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
66.	Crystal structure of bis{3-(3,5-dichlorophenyl)-5-[6-(1 H -pyrazol-1-yl)pyridin-2-yl]-4 H -1,2,4-triazol-4-ido}iron(II) methanol disolvate; K. Znovjyak, M. Seredyuk, I.O. Fritsky, T.Y. Sliva, V.M. Amirkhanov, S.O. Malinkin, **S. Shova;**	-	0.070

	Acta Crystallographica Section E Crystallographic Communications E78, 1173-1177 (2022) (FI_{2023} = -) (Q_{FI} = -)		
67.	New cellulose-collagen-alginate materials incorporated with quercetin, anthocyanins and lipoic acid; N. Anghel, M.V. Dinu, **M.F. Zaltariov**, D. Pamfil, I. Spiridon; International Journal of Biological Macromolecules 181, 30-40 (2021) (FI_{2023} = 8.2) (Q_{FI} = Q1)	Q1	0.920
68.	The synergistic effect of nitrile and jeffamine structural elements towards stretchable and high-k neat polyimide materials; I. Butnaru, A. Chiriac, **C. Țugui**, M. Asăndulesa, M.D. Dămăceanu; Materials Chemistry Frontiers 5(20), 7558-7579 (2021) (FI_{2023} = 7.0) (Q_{FI} = Q1)	Q1	1.153
69.	Dielectric, thermal and water absorption properties of some EPDM/Flax fiber composites; A. Airinei, M. Asăndulesa, M.D. Stelescu, N. Tudorache, N. Fifere, **A. Bele**, V. Musteață; Polymers 13(15), 2555 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606
70.	Development and characterization of novel cellulose composites obtained in 1-ethyl-3-methylimidazolium chloride used as drug delivery systems polymers; I. Spiridon, I.M. Andrei, N. Anghel, M.V. Dinu, **B.I. Ciubotaru**; Polymers 13 (13), 2176 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606
71.	Poly(vinylpyrrolidone)-chitosan hydrogels as matrices for controlled drug release; A.M. Ipate, D. Serbezeanu, **A. Bargan,** C. Hamciuc, L. Ochiuz, S. Gherman; Cellulose Chemistry and Technology 55 (1-2) 63-73 (2021) (FI_{2023} = 1.3) (Q_{FI} = Q3)	Q2	0.132
72.	Application of vegetal oils in developing bioactive paper-based materials for food packaging; A. Irimia, E. Stoleru, C. Vasile, **A. Bele**, M. Brebu; Coatings 11, 1211 (2021) (FI_{2023} = 3.4) (Q_{FI} = Q2)	Q2	0.439
73.	Novel electrospun membranes based on PVDF fibers embedding lanthanide doped ZnO for adsorption and photocatalytic degradation of dye organic pollutants; P. Pascariu Dorneanu, C. Cojocaru, P. Samoilă, N. Olaru, **A. Bele**, A. Airinei; Materials Research Bulletin 141, 111376 (2021) (FI_{2023} = 5.4) (Q_{FI} = Q2)	Q3	0.561
74.	Coumarin-based triapine derivatives and their copper(II) complexes: Synthesis, cytotoxicity and mR2 RNR inhibition activity; I. Stepanenko, M.V. Babak, G. Spengler, M. Hammerstad, A. Popovic-Bijelic, **S. Shova**, G.E. Buchel, D. Darvasiova, P. Rapta, V.B. Arion; Biomolecules 11(6), 862 (2021) (FI_{2023} = 5.5) (Q_{FI} = Q1)	Q2	0.972
75.	Cyanido-bridged {Fe(III)Ln(III)} heterobimetallic chains assembled through the [Fe-III{HB(pz)(3)}(CN)(3)](-) complex as metalloligand: synthesis, crystal structure and magnetic properties; D. Visinescu, M.G. Alexandru, D.G. Dumitrescu, **S. Shova**, N. Moliner, F. Lloret, M. Julve; CrystEngComm 23 (26), 4615-4626 (2021) (FI_{2023} = 3.1) (Q_{FI} = Q1)	Q2	0.464
76.	Spin crossover in iron(II) Hofmann clathrates analogues with 1,2,3-triazole; IS. Kuzevanova, O.I. Kucheriv, V.M. Hiiuk, D.D. Naumova, **S. Shova**, S.I. Shylin, VO. Kotsyubynsky, A. Rotaru, I.O. Fritsky, I.A. Gural'skiy; Dalton Transactions 50 (26), 9250-9258 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
77.	A rare isostructural series of 3d-4f cyanido-bridged heterometallic squares obtained by assembling [Fe-III{HB(pz)(3)}(CN)(3)](-) and Ln(III) ions: synthesis, X-ray structure and cryomagnetic study; M.G. Alexandru, D. Vișinescu, B. Cula, **S. Shova**, R. Rabelo, N. Moliner, F. Lloret, J. Cano, M. Julve; Dalton Transactions 50, 14640-14652 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577

78.	Co(II), Cu(II), Mn(II), Ni(II), Pd(II), and Pt(II) complexes of bidentate Schiff base ligand: Synthesis, crystal structure, and acute toxicity evaluation; G. Lupascu, E. Pahonțu, **S. Shova**, S.F. Bărbuceanu, M. Badea, C. Paraschivescu, J. Neamțu, M. Dinu, R.V. Ancuceanu, D. Drăgănescu, C.E. Dinu-Pîrvu; Applied Organometallic Chemistry 35, e6149 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391
79.	Synthesis and characterization of [4-{$(CH_2O)(2)CH$}C_6H_4](2)Hg, [4-(O=CH)C_6H_4](2)Hg and [(E)-4-(RN=CH)C_6H_4](2)Hg (R=2'-py, 4'-py, 2'-pyCH(2), 4 '-pyCH(2)); L. Kiss, A. Pop, **S. Shova**, C.I. Rat, C. Silvestru; Applied Organometallic Chemistry 35(9), 6339 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391
80.	Expanding manganese(IV) aqueous chemistry: unusually stable water-soluble hexahydrazide clathrochelate complexes; S.I. Shylin, J.L. Pogrebetsky, A.O. Husak, D. Bykov, A. Mokhir, F. Hampel, **S. Shova**, A. Ozarowski, E. Gumienna-Kontecka, I.O. Fritsky; Chemical Communications 57, 11060-11063 (2021) (FI_{2023} = 4.9) (Q_{FI} = Q2)	Q2	1.033
81.	Coordination polymers of the macrocyclic nickel(II) and copper(II) complexes with isomeric benzenedicarboxylates: The case of spatial complementarity between the bis-macrocyclic complexes and o-phthalate; L.V. Tsymbal, I.L. Andriichuk, **S. Shova**, D. Trzybiński, K. Woźniak, V.B. Arion, Y.D. Lampeka; Crystal Growth&Design 21, 4, 2355–2370 (2021) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q2	0.584
82.	Isomorphic channel-type pseudopolymorphs of azathioprine: From structural confirmations to a rational polymorph screening approach; D. Samohvalov, M.A. Lungan, **S. Shova**, A. Barbatu, D. Gherca, C.M. Manta; Crystal Growth&Design 21(9), 4837-4846 (2021) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q2	0.584
83.	An alternative approach to the synthesis of [1,2,4]triazolo[1,5-a]pyridine-8-carbonitriles, their crystal structure, and DFT calculations; D.M. Khomenko, T.V. Shokol, R.O. Doroshchuk, V.S. Starova, I.V. Raspertova, **S. Shova**, R.D. Lampeka, Y.M. Volovenko; Journal of Heterocyclic Chemistry 58 (6), 1278-1285 (2021) (FI_{2023} = 2.4) (Q_{FI} = Q2)	Q3	0.227
84.	Synthesis of 1-(2-fluorophenyl)pyrazoles by 1,3-dipolar cycloaddition of the corresponding sydnones; D. Dumitrescu, **S. Shova**, C. Draghici, M.M. Popa, F. Dumitrascu; Molecules 26 (12), 3693 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660
85.	Chiral organic-inorganic lead halide perovskites based on alpha-alanine; V.Y. Sirenko, O.I. Kucheriv, D.D. Naumova, I.V. Fesych, R.P. Linnik, I.A. Dascălu, **S. Shova**, I.O. Fritsky, IA. Gural'skiy; New Journal of Chemistry 45 (28), 12606-12612 (2021) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.274
86.	Slow relaxation of the magnetization in a {(CoMnIII)-Mn-III} heterometallic brick-wall network; M.G. Alexandru, D. Vișinescu, **S. Shova**, S.E. Stiriba, J. Cano, F. Lloret, M. Julve; Polyhedron 200, 115118 (2021) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274
87.	An investigation of two copper(II) complexes with a triazole derivative as a ligand: magnetic and catalytic properties; Y.P. Petrenko, K. Piasta, D.M. Khomenko, R.O. Doroshchuk, **S. Shova**, G. Novitchi, Y. Toporivska, E. Gumienna-Kontecka, LMDRS. Martins, R.S. Lampeka; RSC Advances 11 (38), 23442-23449 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.570
88.	Cis-Palladium(II) complex incorporating 3-(2-pyridyl)-5-methyl-1,2,4-triazole: structure and cytotoxic activity; B.V. Zakharchenko, D.M. Khomenko, R.O. Doroschuk, I.V. Raspertova, **S. Shova**, A.G. Grebinyk, I.I. Grynyuk, S.V.	Q3	0.248

	Prylutska, O.P. Matyshevska, M.S. Slobodyanik, M. Frohme, R.D. Lampeka; Chemical Papers 75 (9), 4899-4906 (2021) (FI_{2023} = 2.2) (Q_{FI} = Q3)		
89.	An original 3D coordination polymer constructed from trinuclear nodes and tetracarboxylato spacers; A.S. Dinca, A. Dogaru, A.E. Ion, S. Nica, D. Dumitrescu, **S. Shova**, F. Lloret, M. Julve, A. Andruh; CRYSTENGCOMM 23 (6), 1332-1335 (2021) (FI_{2023} = 3.1) (Q_{FI} = Q3)	Q3	0.464
90.	Noncovalent interactions in the architectures with substituted salicylaldehyde semicarbazones; L.N. Cuba, E.C. Gorincioi, D.P. Drăgancea, **S. Shova**, P.N. Bourosh; Russian Journal of Coordination Chemistry 47 (7), 488-501 (2021) (FI_{2023} = 1.9) (Q_{FI} = Q3)	Q4	0.110
91.	Synthesis of α-substituted 2-(1H-1,2,4-triazol-3-yl)acetates and 5-amino-2,4-dihydro-3H-pyrazol-3-ones via the Pinner strategy; D.M. Khomenko, R.O. Doroshchuk, H.V. Ivanov, B.V. Zakharchenko, I.V. Raspertova, O.V. Vaschenko, **S. Shova**, A.V. Dobrydnev, Y.S. Moroz, O.O. Grygorenko, R.D. Lampeka; Tetrahedron Letters 69, 152956 (2021) (FI_{2023} = 1.8) (Q_{FI} = Q3)	Q3	0.312
92.	{2,6-Bis[(Dimethylamino)methyl]phenyl}mercury(II) acetate, [2,6-$(Me_2NCH_2)_2C_6H_3$]Hg(OAc) - A useful intermediate for selective palladation of 1,3-$(Me_2NCH_2)2C_6H_2$; L. Kiss, **S. Shova**, M. Vlassa, A. Silvestru, C.I. Rat, C. Silvestru; Revue Roumaine de Chimie 66 (2), 167-177 (2021) (FI_{2023} = 0.5) (Q_{FI} = Q4)	Q4	0.052
93.	Crystal structure of (N1,N3-bis{[1-(4-methoxybenzyl)-1H-1,2,3-triazol-4-yl]methylidene}-2,2-dimethylpropane-1,3-diamine)bis(thiocyanato)iron(II); K. Znovjyak, M. Seredyuk, S.O. Malinkin, I.A. Golenya, T.Y. Sliva, **S. Shova**, N.U. Mulloev; Acta Crystallographica Section E: Crystallographic Communications 77, 495-499, (2021) (FI_{2023} = -) (Q_{FI} = -) (AIS_{2022} = 0.070) (Q_{AIS} = -)	-	0.070
94.	Crystal structure of {N^1,N^3-bis[(1-tert-butyl-1H-1,2,3-triazol-4-yl)methylidene]-2,2-dimethyl-propane-1,3-diamine}bis(thiocyanato)iron(II); K. Znovjyak, M. Seredyuk, S.O. Malinkin, I.O. Golenya, V.M. Amirkhanov, **S. Shova**, N.U. Mulloev; Acta Crystallographica Section E: Crystallographic Communications 77(Pt 5), 573–578 (2021) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
95.	1-(4-Carboxyphenyl)-5-methyl-1H-1,2,3-triazole-4-carboxylic acid - A versatile ligand for the preparation of coordination polymers and mononuclear complexes; B.I. Bratanovici, **S. Shova**, V. Lozan, I.A. Dascălu, R. Ardeleanu, G. Roman; Polyhedron 200, 115115 (2021) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274
96.	Synthesis, crystal structure and luminescent properties of isoreticular lanthanide-organic frameworks based on a tetramethyl-substituted terphenyldicarboxylic acid; I.A. Dascălu, E.A. Mikhalyova, **S. Shova**, B.I. Bratanovici, R. Ardeleanu, N. Marangoci, V. Lozan, G. Roman; Polyhedron 194, 114929 (2021) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274
97.	Synthesis and properties of new fused pyrrolo-1,10-phenan-throline type derivatives; C. Al-Matarneh, I. Roșca, **S. Shova**, R. Dănac; Journal of The Serbian Chemical Society 86 (10), 901-915 (2021) (FI_{2023} = 1.0) **(Q_{FI} = Q4)**	Q4	0.147
98.	Antibacterial polysiloxane polymers and coatings for cochlear implants; V. Cozma, I. Roșca, L. Rădulescu, C. Martu, V. Năstasă, C.D. Varganici, E.L. Ursu, F. Doroftei, M. Pinteală, **C. Racleș**; Molecules 26 (16), 4892 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q3	0.660
99.	Novel platinum-porphyrin as sensing compound for efficient fluorescent and	Q2	0.530

	electrochemical detection of H_2O_2; E. Fagadar-Cosma, N. Plesu, A. Lascu, D. Anghel, **M. Cazacu**, C. Ianasi, G. Fagadar-Cosma, I. Fratilescu, C. Epuran; Chemosensors 8, 29 (2020) (FI_{2023} = 4.2) (Q_{FI} = Q2)		
100.	Chitosan-sulfated titania composite membranes with potential applications in fuel cell: influence of cross-linker nature; A.-C. Humelnicu, P. Samoila, M. Asandulesa, C. Cojocaru, **A. Bele**, A.T. Marinoiu, A. Saccà, V. Harabagiu; Polymers 12(5) 1125 (2020) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606
101.	Effect of TAT-DOX-PEG irradiated gold nanoparticles conjugates on human osteosarcoma cells; R.V. Lupusoru, D. A. Pricop, C. M. Uritu, A. Arvinte, A. Coroaba, I. Esanu, **M.F. Zaltariov**, M. Silion, C. Stefanescu, M. Pinteala; Scientific Reports 10, 6591, (2020) (FI_{2023} = 4.6) **(Q_{FI} = Q2)**	Q2	1.132
102.	Hydrohypropyl cellulose/polyurethane blends. The behavior after accelerated ageing. A FTIR study; **M.-F. Zaltariov,** D. Filip, D. Macocinschi, I. Spiridon; Cellulose Chemistry and Technology 54 *(9-10),* 913-924, (2020) (FI_{2023} = 1.3) (Q_{FI} = Q3)	Q3	0.132
103.	Preparation and characterization of electrospun collagen based composites for biomedical applications; M. Drobota, L.M. Gradinaru, S. Vlad, **A. Bargan**, M. Butnaru, M. Angheloiu, M. Aflori; Materials 13, 3961 (2020) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511
104.	Insight into the anticancer activity of copper(II) 5-methylenetrimethylammonium thiosemicarbazonates and their interaction with organic cation transporters; M.N.M. Milunovi´c, O. Palamarciuc, A. Sirbu, **S. Shova**, D. Dumitrescu, D. Dvoranová, P. Rapta, T.V. Petrasheuskaya, E.A. Enyedy, G. Spengler, M. Ilic, H.H. Sitte, G. Lubec, V.B. Arion; Biomolecules 10, 1213 (2020) (FI_{2023} = 5.5) (Q_{FI} = Q1)	Q2	0.972
105.	Spin crossover in 2D iron(II) phthalazine cyanometallic complexes; V.M. Hiiuk, **S. Shova**, A. Rotaru, A.A. Golub, I.O. Fritsky, I.A. Guralskiy; Dalton Transactions 49, 5302-5311 (2020) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
106.	Hofmann-like frameworks Fe(2-methylpyrazine)n $[M(CN)_2]_2$ (M=Au, Ag): Spin-crossover defined by the precious metal; S.I. Shylin, O.I. Kukeriv, **S. Shova**, V. Ksenofontov, W. Tremel, I.A. Guralskiy; Inorganic Chemistry 59, 6541-6549 (2020) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750
107.	Neutral lipophilic palladium(II) complexes and their applications in electrocatalytic hydrogen production and C-C coupling reactions; O. Cuzan-Munteanu, D. Sirbu, M. Giorgi, **S. Shova**, E. Gibson, M. Reglier, M. Orio, L.M.D.R.S. Martins, A.C. Benniston; European Journal of Inorganic Chemistry 10, 813-822 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q2)	Q2	0.393
108.	Role of the main and auxiliary ligands in the nuclearity of Cu-Ln complexes; J.P. Costes, M.J. Rodriguez Douton, **S. Shova**, L. Vendier; European Journal of Inorganic Chemistry 4, 382-393 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q2)	Q2	0.393
109.	Synthesis, crystal structure and magnetic properties of new copper(II) complexes based on 3-(2-pyridyl)-1,2,4-triazole; Y.P. Petrenko, D.M. Khomenko, R.O. Doroshchuk, **S. Shova**, G. Novitchi, K. Piasta, E. Gumienna-Kontecka, R.D. Lampeka; Inorganica Chimica Acta 500, Article 119216/1-7 (2020) (FI_{2023} = 2.8) (Q_{FI} = Q2)	Q3	0.284
110.	Introducing chirality in halogenated 3-arylsydnones and their corresponding 1-arylpyrazoles obtained by 1,3 dipolar cycloaddition, M.M. Popa, **S. Shova**, M.	Q2	0.570

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111.	Synthesis and evaluation of biological activity of homodrimane sesquiterpenoids bearing 1,3,4-oxadiazole and 1,3,4-thiadiazole units; L. Lungu, A. Ciocarlan, C. Smigon, I. Ozer, **S. Shova**, I. Gutu, N. Vornicu, I. Mangalagiu, M. D'Ambrosio, A. Aricu; Chemistry of Heterocyclic Compounds 56, 578-585 (2020) (FI_{2023} = 1.5) (Q_{FI} = Q3)	Q3	0.177
112.	Crystal structure of dichlorido-1jCl,2jCl-(l2-3,5-dimethyl-1H-pyrazolato-1jN2:2jN1)(3,5-dimethyl-1H-pyrazole -2jN2){l-2-[(2-hydroxyethyl)amino-1j2N,O]ethanolato-1:2j2O:O}dicopper(II); O.S. Vynohradov, V.A. Pavlenko, I.S. Safyanova, K. Znovjyak, **S. Shova**, S.M. Safarmamadovc; Acta Crystallographica Section E: Crystallographic Communications E76, 1503–1507 (2020) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
113.	Electrically driven artificial muscles using novel polysiloxane elastomers modified with nitroaniline push-pull moieties; E. Perju, **S. Shova**, D.M. Opris; ACS Applied Materials and Interfaces 12, 23432-23442 (2020) (FI_{2023} = 9.5) (Q_{FI} = Q1)	Q1	1.660
114.	Phenothiazine based co-crystals with enhanced luminescence; L. Marin, A. Bejan, **S. Shova**; Dyes and Pigments 175, 108164/1-9 (2020) (FI_{2023} = 4.5) (Q_{FI} =Q1)	Q1	0.509
115.	New microporous lanthanide organic frameworks. Synthesis, structure, luminescence, sorption and catalytic acylation of 2-naphthol; D. Bejan, L. G. Bahrin, **S. Shova**, N.L. Marangoci, U. Kokcam-Demir, V. Lozan, C. Janiak; Molecules, 25, 3055/1-15 (2020) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q3	0.660
116.	Design and synthesis of novel ditopic ligands with a pyrazole ring in the central unit; B.I. Bratanovici, A. Nicolescu, **S. Shova**, I.A. Dascalu, R. Ardeleanu, V. Lozan, G. Roman; Research on Chemical Intermediates 46, 1587-1611 (2020) (FI_{2023} = 3.3) (Q_{FI} =Q2)	Q3	0.294
117.	Determination of the effective diffusion coefficient during the drying of paint and varnish films applied on fir wood; A. Mihaila, C. Lisa, A-M. Ipate, **M.F. Zaltariov**, D. Rusu, I. Mămăligă, G. Lisa; Prog. Org. Coat. 137, 105344 (2019) (FI_{2023} = 6.6) (Q_{FI} = Q1)	Q1	0.698
118.	Conductive silicone elastomers electrodes processable by screen printing; J.E.Q. Quinsaat, I. Burda, R. Krämer, D. Häfliger, F.A. Nüesch, M. Dascalu, D.M. Opris; Scientific Reports 9, Article Number 13331 (2019) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	1.132
119.	Effects of sewage sludge amendments on the growth and physiology of sweet basil; M. Burducea, A. Lobiuc, M. Asandulesa, **M.F. Zaltariov**, I. Burducea, S.M. Popescu, V.D. Zheljazkov; Agronomy 9, 548 (2019) (FI_{2023} = 2.1) (Q_{FI} = Q2)	Q1	0.424
120.	Chitosan-based bionanocomposite films prepared by emulsion technique for food preservation; E. Butnaru, E. Stoleru, M.A. Brebu, R.N. Darie-Nita, **A. Bargan**, C. Vasile; Materials 12, 373 (2019) (FI_{2023} = 2.2) (Q_{FI} = Q3)	Q3	0.264
121.	Synthesis, characterization, molecular docking studies and in vitro screening of new metal complexes with Schiff base as antimicrobial and antiproliferative agents; E. Pahontu, M. Proks, **S. Shova,** G. Lupascu, D. - C. Ilies, T.F. Bărbuceanu, L.I. Socea, M. Badea, V. Păunescu, D.Istrati, A. Gulea, D. Drăgănescu, C. Elena, D. Pîrvu; Appl. Organomet. Chem. https://doi.org/10.1002/aoc.5185 (2019) (FI_{2023} = 3.9) (Q_{FI} = Q1)	Q2	0.391
122.	In situ generation of Ph_3PO in cyanido-bridged heterometallic {Fe(III)Ln(III)}(2)	Q1	0.577

	molecular squares (Ln = Eu, Sm); M.G. Alexandru, D. Visinescu, ; B. Braun-Cula, **S. Shova**, F. Lloret, M. Julve; Dalton Trans. 48(22), 7532-7536 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)		
123.	Heterometallic 3d–4d coordination polymers assembled from trans-[RuIII(L)(CN)2]−tectons and 3d cations; G. Marinescu, A.M. Madalan, C. Maxim, **S. Shova**, R. Clérac, M. Andruh; Dalton Trans. 48, 15455-15464 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
124.	High relaxation barrier in neodymium furoate-based field-induced SMMs; E. Bartolomé, A. Arauzo, J. Luzón, S. Melnic, **S. Shova**, D. Prodius, I.C. Nlebedim, F. Bartolomé, J. Bartolomé; Dalton Trans. 48, 15386-15396 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
125.	Slow relaxation in a {Tb_2Ba(alpha-fur)(8)}(n) polymer with Ln = Tb(III) non-Kramers ions; E. Bartolome, A. Arauzo, J. Luzon, S. Melnic, **S. Shova**, D. Prodius, J. Bartolome, A. Amann, M. Nallaiyan, S. Spagna; Dalton Trans. 48(15), 5022-5034 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
126.	Aggregation of [Ln(12)(III)] clusters by the dianion of 3-formylsalicylic acid. Synthesis, crystal structures, magnetic and luminescence properties; A.S. Dinca, A. Mindru, D. Dragancea, C. Tiseanu, **S. Shova**, S. Cornia, L.M. Carrella, E. Rentschler, M. Affronte, M. Andruh; Dalton Trans. 48(5), 1700-1708 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577
127.	Generalization of the anthocyanins kinetics and thermodynamics multistate to 2,6-bis(2-hydroxybenzylidene)cyclohexanones; A. Alejo-Armijo, A.J. Moro, A.J. Parola, J.C. Lima, F. Pina, L. Corici, **S. Shova**, L. Cseh; Dyes Pigments, 163, 573-588 (2019) (FI_{2023} = 4.5) (Q_{FI} = Q1)	Q2	0.509
128.	Nickel(II) Complexes with Redox Noninnocent Octaazamacrocycles as Catalysts in Oxidation Reactions; A. Dobrov, D. Darvasiova, M. Zalibera, L. Bucinsky, I. Puskarova, P. Rapta, **S. Shova**, D. Dumitrescu, L.M.D.R.S. Martins, A.J.L. Pombeiro, V.B. Arion; Inorg. Chem. 58(16), 11133-11145 (2019) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750
129.	Thermal analysis, synthesis and structural studies of heterometallic {Fe2MO} salicylate complexes; V. Gorinchoy, O. Cuzan-Munteanu, O. Petuhov, E. Melnic, V.Ch. Kravtsov, **S. Shova**; J. Thermal Anal. Calorim., https://doi.org/10.1007/s10973-019-08642-6 (2019) (FI_{2023} = 4.4) (Q_{FI} =Q1)	Q3	0.444
130.	Exploring isoxazoles and pyrrolidinones decorated with the 4,6-dimethoxy-1,3,5-triazine unit as human farnesyltransferase inhibitors; L. Lucescu, A. Ghinet, **S. Shova,** R. Magnez, X. Thuru, A. Farce, B. Rigo, D. Belei, J. Dubois, E. Bicu; Archiv. der Pharmazie 352(5), Article Number: 1800227 (2019) (FI_{2023} = 5.1) (Q_{FI} = Q2)	Q3	0.506
131.	Room temperature hysteretic spin crossover in a new cyanoheterometallic framework; V.M. Hiiuk, **S. Shova,** A. Rotaru, V. Ksenofontov, I.O. Fritsky, I.A. Gural'skiy; Chem. Commun. 55(23), 3359-3362 (2019) (FI_{2023} = 4.9) (Q_{FI} = Q2)	Q2	1.033
132.	Halogen bonding in 5-iodo-1-arylpyrazoles investigated in the solid state and predicted by solution ^{13}C-NMR spectroscopy; M.M. Popa, I. Man, C. Draghici, **S. Shova,** M.R. Caira, F. Dumitrascu, D. Dumitrescu; CrystEngComm, DOI: 10.1039/C9CE01263J (2019) (FI_{2023} = 3.1) (Q_{FI} = Q2)	Q2	0.464
133.	Bichromophoric pyrazoline derivative with solvent-selective photoluminescence quenching; A.L. Chibac, G. Roman, C. Cojocaru, **S. Shova**, G. Sacarescu, M.	Q2	0.668

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134.	Synthesis, crystal structure and magnetic properties of new copper(II) complexes based on 3-(2-pyridyl)-1,2,4-triazole; Y.P. Petrenko, D.M. Khomenko, R.O. Doroschuk, **S. Shova**, G. Novitchi, K. Piasta, E. Gumienna-Kontecka, R. D. Lampeka; Inorg. Chim. Acta https://doi.org/10.1016/j.ica.2019.119216 (2019) (FI_{2023} = 2.8) (Q_{FI} = Q2)	Q3	0.284
135.	The cytotoxic properties of some tricyclic 1,3-dithiolium flavonoids, L.G. Sarbu, **S. Shova,** D. Peptanariu, I.A. Sandu, L.M. Birsa, L.G. Bahrin; Molecules 24(13), Article Number: 2459 (2019) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660
136.	Secondary compounds in the catalytic hydrogenation of enone and allylic alcohol prostaglandin intermediates: isolation, characterization, and X-ray crystallography; C.I. Tanase, F. Cocu, C. Draghici, A. Hanganu, L. Pintilie, M. Maganu, C.V.A. Munteanu, **S. Shova**; New J. Chem. 43(20), 7582-7599 (2019) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.444
137.	New palladium(II) complexes with 3-(2-pyridyl)-5-alkyl-1,2,4-triazole ligands as recyclable C-C coupling catalysts; B.V. Zakharchenko, D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, V.S. Starova, V.V. Trachevsky, **S. Shova**, O.V. Severynovska, L.M.D.R.S. Martins, A.J.L. Pombeiro, V.B. Arion, R.D. Lampeka; New J. Chem. 43(27), 10973-10984 (2019) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.444
138.	Investigation of the cytotoxic potential of methyl imidazole-derived thiosemicarbazones and their copper(II) complexes with dichloroacetate as a co-ligand, O. Palamarciuc, M.N.M. Milunovic, A. Sirbu, E. Stratulat, A. Pui, N. Gligorijevic, S. Radulovic, J. Kozisek, D. Darvasiova, P. Rapta, E.A. Enyedy, G. Novitchi, **S. Shova**, V.B. Arion; New J. Chem. 43(3), 1340-1357 (2019) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.444
139.	Coordination polymers and supramolecular solid-state architectures constructed from an organometallic tecton, bis(4-pyridyl)mercury; T. Mocanu, L. Kiss, A. Sava, **S. Shova,** C. Silvestru, M. Andruh; Polyhedron 166, 7-16 (2019) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274
140.	Synthesis and evaluation of biological activity of homodrimane sesquiterpenoids bearing hydrazinecarbothioamide or 1,2,4-triazole unit; L. Lungu, A. Ciocarlan, A. Barba, **S. Shova,** S. Pogrebnoi, I. Mangalagiu, C. Moldoveanu, N. Vornicu, M. D'Ambrosio, M.V. Babak, V.B. Arion, A. Aricu; Chem. Heterocycl. Compd. 55(8), 716-724 (2019) (FI_{2023} = 1.5) (Q_{FI} = Q3)	Q3	0.177
141.	Cascade reactions for constructing heterocycles containing a pyrimidino-pyrazino-pyrimidine core using 1,2,4-triazole scaffolds; D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, J.G. López, F.L. Ortiz, **S. Shova,** O.A.I egorov, R.D. Lampeka; Tetrahedron Lett. 60(39), 151089 (2019) (FI_{2023} = 1.8) (Q_{FI} = Q3)	Q3	0.312
142.	Exploring the coordination abilities of 1,5-diisopropyl-3-(4′-carboxyphenyl)-6-oxoverdazyl; V. Kumar, **S. Shova**, G. Novitchi, C. Train; C.R. Chim. 22(6-7), 541-548 (2019) (FI_{2023} = 1.6) (Q_{FI} = Q4)	Q3	0.417
143.	Crystal structure of poly[[diaquatetra-mu(2)-cyanido-iron(II)platinum(II)] acetone disolvate; I.S. Kuzevanova, D.D. Naumova, K.V. Terebilenko, **S. Shova,** I.A. Gural'skiy; Acta Crystallographica Section E-Crystallographic Communications E75, 1536-1539 (2019) (FI_{2023} = -) (Q_{FI} = -)	-	0.070
144.	Crystal structure of catena-poly[[gold(I)-μ-cyanido-[diaquabis(2-	-	0.070

	phenylpyrazine)iron(II)]-μ-cyaniao]dicyanidogold(I)]; O.I. Kucheriv, D.D. Barakhtii, S.O. Malinkin, **S. Shova,** I.A. Gural'skiy; Acta Crystallographica Section E-Crystallographic Communications E75, 1149-1152 (2019) (FI_{2023} = -) (Q_{FI} = -)		
145.	Synthesis, crystal structure and biological activity of new phosphoester-p-substituted-methylparabens; D. Serbezeanu, I.D. Carja, A. Nicolescu, M. Aflori, T. Vlad-Bubulac, M. Butnaru, R.F. Damian, S. Dunca, **S. Shova;** J. Mol. Struct. 1196, 637-646 (2019) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331
146.	Crystal smectic E revisited for(E)-N-(biphenyl-4-ylmethylene)-4-butylaniline–mesomorphism, crystal structure and FTIR study; V. Cozan, M. Avadanei, **S. Shova, M.-F. Zaltariov**; Lyq. Cryst. 46, 492-501 (2019) (FI_{2023} = 2.676) (Q_{FI} = Q2)	Q4	0.276
147.	Coordination polymers of Cu(II), Co(II) and Cd(II) based on a tetramethyl-substituted terphenyldicarboxylic acid; I.A. Dascalu, **S. Shova**, D.G. Dumitrescu, G. Roman, B.I. Bratanovici, R. Ardeleanu, V. Lozan; Polyhedron 170, 463-470 (2019) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274
148.	Alkali- and alkaline-earth metal–organic networks based on a tetra(4-carboxyphenyl)bimesitylene-linker; L.G. Bahrin, D. Bejan, **S. Shova,** M. Gdaniec, M. Fronc, V. Lozan, C. Janiak; Polyhedron 173, 114128 (2019) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274
149.	Synthesis, structure, computational modeling, and biological activity of two novel bimesitylene derivatives, L.G. Bahrin, L. Clima, **S. Shova**, I. Rosca, C. Cojocaru, D. Bejan, M.C. Sardaru, N. Marangoci, V. Lozan, A. Rotaru; Res. Chem. Intermediat. 45(2), 453-469 (2019) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.294

Proceedings and other journals from the country and abroad: 14

1.	Caracterizarea metalelor arheologice prin tehnici de arheometrie; N. Vornicu, C. Bibire, **M.F. Zaltariov**; Revista Arheologica 18(1), 98-105 (2022).
2.	Characterisation of metal threads from Archaelogical textiles religious by methods of Archaeometry, N. Vornicu, C. Bibire, **M.F. Zaltariov**, Annals of the University of Oradea Fascicle of Textiles, Leatherwork, ISSN 1843 – 813X, 22(1), 95, (2021).
3.	Investigation of some thermomechanical processing effects on the structure and properties of a TiNiCu shape memory alloy; M. Popa, V.D. Apostol, N.M. Lohan, N. Cimpoesu, **M. Cazacu**, F. Borza, L.-G. Bujoreanu; Materials Today: Proceedings 2022, ISSN 2214-7853 https://doi.org/10.1016/j.matpr.2022.10.225.(https://www.sciencedirect.com/science/article/pii/S2214785322067444X)
4.	Alginate dental impression materials with Allantoin enrichment: a morphology, dynamic vapor sorption and swelling evaluation; I. Gradinaru, **B.-I. Ciubotaru, M. Dascălu, A. Bargan**, A.-L. Vasiliu; Proceedings of IEEE E-Health and Bioengineering Conference - EHB 2022 10^{-th} edition, Iași, Romania, 17-19.11.2022.
5.	Applications and properties by using time-resolved fluorescence and transient absorption spectroscopy; I.R. Țigoianu, S. Carlos, P. Amilcar, P. Joao, M. Avadanei, D. Ursu, **M.F. Zaltariov**; Proceedings 69, 21 (2021)
6.	Metal complexes based on polydentate ligands for medicine and catalysis; **M.F. Zaltariov**, N. Vornicu; Yesterday's heritage–implications for the development of tomorrow's sustainable society Conference, Chisinau, Moldova, 229-230, 11-12.02.2021

7.	Stability of the HPC/PU polymeric blends in accelerated weathering and biological environments; **M.F. Zaltariov**, C.D. Varganici, D. Filip, D. Macocinschi; 1st Corrosion and Materials Degradation Web Conference, 17-19 May 2021, sciforum ID-045074; DOI: 10.3390/CMDWC2021-10034, (2021)
8.	Bioinspired polymer materials for thermal management of heating and cooling in buildings- ID-166; **G. Știubianu, M. Cazacu, C. Racleș, M. Dascălu, A. Bargan, A. Bele, C. Țugui**, C. Ursu; 9th European Conference on Renewable Energy Systems, ECRES 2021, 21-23 aprilie, ISBN Number: 978-605-86911-9-3, (2021)
9.	Siloxane/Silane derivatives based on 5-amino-1,3,4-thidiazole-2-thiol and their gold complexes: interfacial phenomena based on photoluminescence; **M. Damoc, A.C. Stoica, M. Dascălu**, A.-M. Macsim, R.I. Tigoianu, D. Blaj, A.G. Rusu, **M. Iacob, M. Cazacu**; International Conference Progress in Organic and Macromolecular Compounds 28th Edition, Macro Iasi 2021, Iasi, Romania, 7-9.10.2021, *Proceedings (Online)* ISSN 2810 – 2347 ISSN – L 2810 – 2126
10.	Energy-efficient dynamic polymer-based nanocomposites; **G. Stiubianu**, C. Ursu, **C. Tugui, A. Bele, A. Bargan, C. Racles, M. Cazacu**, A. Ciobotaru; International Conference Progress in Organic and Macromolecular Compounds 28th Edition, Macro Iasi 2021, Iasi, Romania, 7-9.10.2021, *Proceedings (Online)* ISSN 2810 – 2347 ISSN – L 2810 – 2126
11.	Cytotoxicity evaluation of new Ruthenium complexes; **M.-F. Zaltariov**, M. Butnaru, D. Peptanariu; 2019 E-Health and Bioengineering Conference (EHB), ISBN-978-1-7281-2603-6, INSPEC Accession Number:19300285, 1-4, (2020)
12.	Structural and cytotoxic evaluation of Platinum(IV) complexes with biological active ligands; **M.-F. Zaltariov**, M. Avadanei, D. Peptanariu; 2019 E-Health and Bioengineering Conference (EHB), ISBN-978-1-7281-2603-6, INSPEC Accession Number: 19300423, 1-4, (2020)
13.	Mucoadhesive composites based on polyurethane/AgNPs for urinary catheter application; B.I. Ciubotaru, **M.-F. Zaltariov**, L. Verestiuc, D. Filip, D. Macocinschi; 2019 E-Health and Bioengineering Conference (EHB), ISBN-978-1-7281-2603-6, INSPEC Accession Number: 19315184, 1-4, (2020)
14.	Siloxane-containing nanostructures and nanomaterials; **M. Cazacu, C. Racles, M. Dascalu, M. Iacob, A. Bele, C. Tugui**; in *Nanomaterials-functional properties and applications* (Eds). M. Zaharescu, A. Ion, M. Enachescu, N. Lupu, D. Dascalu, Editura Academiei Romane, Bucuresti 2020, pp. 150-173

Dr. Racles Carmen, CSI, team member

Total number of publications (according to the Web of Science): 133

https://icmpp.ro/newsmartsil/files/Publications_Racles_C.pdf

Publications in the 2019-2023 period, 23 articles (4Q1, 10Q2, 7Q3, 2Q4), A= 2.122

No.	Publications	Q_{AIS}	AIS	A
1.	Fully carboxy-functionalized polyhedral silsesquioxanes as polar fillers to enhance the performance of dielectric silicone elastomers; **M. Dascalu, A.-C. Stoica, A. Bele**, L. Yu, D. Ionita, A.-L. Vasiliu, A.L. Skov, **C. Racles**, **M. Cazacu**; Polymer 289, 126492 (2023) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601	0.067
2.	From passive to emerging smart silicones; **M. Cazacu, M. Dascalu, G.T. Stiubianu, A. Bele, C. Tugui, C. Racles**; Reviews in Chemical Engineering 39 (6), 941-1003 (2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q1	1.014	0.169
3.	Tuning of morphology and surface properties of porous silicones by chemical modification; **C. Racles**, A.L. Vasiliu; Appl. Sci. 13,	Q3	0.414	0.207

	10899 (2023) (FI_{2023} = 2.7) (Q_{FI} = Q3)			
4.	Molecular and silica-supported metal complexes as new catalysts for hydrosilylation; **C. Racles;** Rev. Roum. Chim. 68(5-6), 233-240 (2023) (FI_{2023} = 0.5) (Q_{FI} = Q4)	Q4	0.052	0.052
5.	Emulsion gels as precursors for porous silicones and all-polymer composites-a proof of concept based on siloxane stabilizers; **C. Racles, A. Bele,** A.L. Vasiliu, L. Sacarescu; Gels 8(6), 377 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626	0.157
6.	Soft silicone elastomers exhibiting large actuation strains; **A. Bele, M. Dascalu, C. Tugui, G.T. Stiubianu,** C.D. Varganici, **C. Racles, M. Cazacu,** A. Ladergaard Skov; Journal of Applied Polymer Science 139(22), 52261/1-11 (2022) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.046
7.	Octakis(carboxyalkylthioethyl)silsesquioxanes and derived metal complexes: Synthesis, characterization and catalytic activity assessments; **M. Dascalu, A.C. Stoica, A. Bele,** A.M. Macsim, **A, Bargan,** C.D. Varganici, **G.T. Stiubianu, C.Racles, S. Shova, M. Cazacu;** Journal of Inorganic and Organometallic Polymers and Materials 32, 3955-3970 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355	0.036
8.	Functionalized mesoporous silica as doxorubicin carriers and cytotoxicity boosters; **C. Racles, M.F. Zaltariov,** D. Peptanariu, T. Vasiliu, **M. Cazacu;** Nanomaterials 12(11), 1823 (2022) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712	0.142
9.	From amorphous silicones to Si-containing highly ordered polymers: Some Romanian contributions in the field; **M. Cazacu, C. Racles, M. F. Zaltariov, M. Dascălu, A. Bele, C. Țugui, A. Bargan, G. Știubianu;** Polymers 13(10), 1605 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076
10.	Synthesis, characterization, and some metal complexes of bis(isocyanide)disiloxane, showing catalytic activity; **C. Racles, M.F. Zaltariov,** M. Silion, M. Avadanei, A.M. Macsim, A. Nicolescu; Applied Organometallic Chemistry 36(3), e6543 (2022) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.066
11.	Elastic composites with PDMS matrix and polysulfone-supported silver nanoparticles as filler; **C. Racles,** M. Asăndulesa, V. Tiron, **C. Țugui,** N. Vornicu, **B.I. Ciubotaru,** M. Mičušík, M. Omastová, A.L. Vasiliu, C. Ciomaga; Polymer 217, 123480 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601	0.060
12.	Two-dimensional coordination polymers containing permethylated motifs - promising candidates for 2D emerging materials. Structural, behavioral and functional particularities; **A.C. Stoica, M. Dămoc, M.F. Zaltariov, C. Racles, M. Cazacu;** Reactive and Functional Polymers 168, 105039 (2021) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.107
13.	New heterogeneous catalysts containing platinum group metals recovered from a spent catalytic converter; **C. Racles, M.-F. Zaltariov,** A. Coroabă, M. Silion, C. Diac, A. Dascălu, **M. Iacob,**	Q2	0.391	0.049

	M. Cazacu; Applied Organometallic Chemistry 35, e6417 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)			
14.	Octakis(phenyl)-T_8-silsesquioxane-filled silicone elastomers with enhanced electromechanical capability; **M. Dascălu, M. Iacob, C. Țugui, A. Bele, G.-T. Știubianu, C. Racles, M. Cazacu**; Journal of Applied Polymer Science 138 (14), 50161 (2021) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052
15.	Multi-stimuli responsive free-standing films of DR1- grafted silicones; **C. Racles**, C. Ursu, **M. Dascalu**, M. Asandulesa, V. Tiron, **A. Bele, C. Tugui**, S. Teodoroff-Onesim; Chemical Engineering Journal 401, 126087 (2020) (FI_{2023} = 15.1) (Q_{FI} = Q1)	Q1	2.029	0.254
16.	Three reactions, one catalyst: A multi - purpose platinum(iv) complex and its silica - supported homologue for environmentally friendly processes; **C. Racles, M.F. Zaltariov, M. Damoc, A.M. Macsim, M. Iacob**, L. Sacarescu; Applied Organometallic Chemistry 34(3) e5422 (15pp) (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.066
17.	Photo-oxidative degradation of doxorubicin with siloxane MOFs by exposure to daylight; **C. Racles, M.F. Zaltariov**, M. Silion, A.M. Macsim, V. Cozan; Environmental Science and Pollution Research 26(19), 19684–19696 (2019) (FI_{2023} = 5.8) (Q_{FI} = Q1)	Q3	0.651	0.130
18.	Copper(II) complexes with spherical morphology generated in one step by amphiphilic ligands: in situ view of the self-assembling, characterization, catalytic activity; G.**-O. Turcan-Trofin, M.-F. Zaltariov, M. Iacob**, V. Tiron, F. Branza, **C. Racles, M. Cazacu**; Colloids and Surfaces A: Physicochemical and Engineering Aspects, 580, 123756 (2019) (FI_{2023} = 5.2) (Q_{FI} = Q2)	Q3	0.6	0.086
19.	Linear and cyclic siloxanes functionalized with polar groups by thiol-ene addition: Synthesis, characterization and exploring some material behaviour; **G.-O. Turcan-Trofin**, M. Asandulesa, M. Balan-Porcarasu, C.-D. Varganici, V. Tiron, **C. Racles, M. Cazacu**; J. Mol. Liq. 282, 187-196 (2019) **(FI_{2023} = 6.0)** (Q_{FI} = Q2)	Q2	0.668	0.095
20.	Nanomaterials developed by processing iron coordination compounds for biomedical application; **M. Iacob, C. Racles, M. Dascalu, C Tugui,** V. Lozan, **M. Cazacu**; Journal of Nanomaterials Article ID 2592974 (2019). (FI_{2023} = 3.791) (Q_{FI} = Q3)	Q3	0.439	0.073
21.	Siloxane-based compounds with tailored surface properties for health and environment; **C. Racles, M. Cazacu, M. Zaltariov, M. Iacob**, M. Butnaru M; Phosphorus, Sulfur, and Silicon and the Related Elements 194(10), 972-977 (2019) (FI_{2023} = 1.3) (Q_{FI} = Q4)	Q4	0.143	0.029
22.	Nickel complexes of guanidine functionalized trisiloxane; L. Pricop, M.E. Fortuna, D. Popovici, M. Asandulesa, **C. Racles, M.F. Zaltariov**, N. Marangoci, M. Savin, V. Harabagiu; J. Inorg. Organomet. Polym. https://doi.org/10.1007/s10904-019-01161-9	Q3	0.355	0.039

	(2019) (FI_{2023} = 4.0) (Q_{FI} = Q2)			
23.	Antibacterial polysiloxane polymers and coatings for cochlear implants; V. Cozma, I. Roșca, L. Rădulescu, C. Martu, V. Năstasă, C.D. Varganici, E.L. Ursu, F. Doroftei, M. Pinteală, **C. Racles**; Molecules 26 (16), 4892 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q3	0.660	0.066

Dr. Shova Sergiu, CSI, team member

Total number of publications (according to the Web of Science): 470

https://icmpp.ro/newsmartsil/files/Publications_Shova_S.pdf

Publications in the 2019-2023 period, 131 articles (23Q1, 40Q2), A=8.743434

No.	Publications	Q_{AIS}	AIS	A
1.	A Manganese (II) 3D Metal–Organic Framework with siloxane-spaced dicarboxylic ligand: synthesis, structure, and properties; **A.C. Stoica, M. Damoc, S. Shova**, G. Novitchi, **M. Dascalu, M. Cazacu**; Inorganics 11(1) 21 (2023) (FI_{2023} = 2.9) (Q_{FI} = Q2)	Q2	0.426	0.071
2.	Micellization turned on dual fluorescence and room temperature phosphorescence by pseudo-ESIPT in thiadiazole derivatives; **M. Damoc**, R.I. Tigoianu, **A.C. Stoica**, A.M. Macsim, **M. Dascalu, S. Shova, M. Cazacu**; Journal of Physical Chemistry C 127 (1), 99-109 (2023) (FI_{2023} = 3.7) (Q_{FI} = Q2)	Q2	0.827	0.118
3.	Octakis(carboxyalkylthioethyl)silsesquioxanes and derived metal complexes: Synthesis, characterization and catalytic activity assessments; **M. Dascalu, A.C. Stoica, A. Bele**, A.M. Macsim, **A, Bargan**, C.D. Varganici, **G.T. Stiubianu, C.Racles, S. Shova, M. Cazacu**; Journal of Inorganic and Organometallic Polymers and Materials 32, 3955-3970 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355	0.036
4.	Fourteen-member silacycle built by cascade reactions induced by a platinum catalyst; **M. Damoc, A.C. Stoica**, D.A. Blaj, A.M. Macsim, **M. Dascalu**, C. Cojocaru, **S. Shova, M. Cazacu**; Journal of Molecular Structure 1269, 133760/1-8 (2022) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331	0.041
5.	Some theoretical and experimental evidence for particularities of the siloxane bond; **A.C. Stoica, M. Damoc**, C. Cojocaru, A. Nicolescu, **S. Shova, M. Dascalu, M. Cazacu**; Molecules 27(23), 8563 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.094
6.	2D coordination polymers and ionic complexes of the nickel(II) and zinc(II) cyclam cations with trigonal carboxylate linkers based on triazine core. Crystal structures, supramolecular catenation and spectral characterization; R.I. Gurtovyi, S.P. Gavrish, L.V. Tsymbal, M.O. Apostu, **M. Cazacu, S. Shova**, Y.D. Lampeka; Polyhedron 221, 115870 (2022) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.039
7.	Dual crystalline-amorphous salen-metal complexes behave like nematic droplets with AIEgens vistas; **M. Dămoc, A.C. Stoica, M. Dascălu**, M. Asăndulesa, **S. Shova, M. Cazacu**; Dalton Transactions 50, 13841-13858 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.096

8.	Silanol-functionalized tetranuclear copper complex and its nanoscale-heterogenization by immobilization on glass surface from solution; **A.C. Stoica, M. Dămoc**, V. Tiron, **M. Dascălu**, A. Coroabă, **S. Shova, M. Cazacu**, Journal of Molecular Liquids 344, 117742 (2021) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.095
9.	Slow magnetic relaxation in $\{[CoCxAPy)]2.15H_2O\}_n$ MOF built from ladder-structured 2D layers with dimeric SMM rungs; A. Arauzo, E. Bartolome, J. Luzon, P. Alonso, **A. Vlad, M. Cazacu, M.F. Zaltariov, S. Shova**, J. Bartolome, **C. Turta**; Molecules 26(18), 5626 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q3	0.660	0.066
10.	Permethylated dinuclear Mn(III) coordination nanostructure with stripe-ordered magnetic domains; **S. Shova**, V. Tiron, **A. Vlad**, G. Novitchi, D.G. Dumitrescu, **M. Damoc, M.-F. Zaltariov, M. Cazacu**; Applied Organometallic Chemistry e5957 (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.049
11.	Keto-enol tautomerism in new silatranes Schiff bases tailed with different substituted salicylic aldehyde; **A. Bargan, M.F. Zaltariov, A. Vlad, A.M.C. Dumitriu, A. Soroceanu**, A.M. Maxim, **M. Dascalu**, C.D. Varganici, **M. Cazacu, S. Shova**; Arabian Journal of Chemistry 13, 3100-3111 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.679	0.068
12.	Nanoscale coordination polymer of dimanganese(II) as infinite, flexible nanosheets with photoswitchable morphology; **S. Shova, A. Vlad, M. Damoc**, V. Tiron, **M. Dascalu**, G. Novitchi, C. Ursu, **M. Cazacu**; European Journal of Inorganic Chemistry, (21), 2043-2054 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q2)	Q2	0.393	0.049
13.	A 2D coordination polymer assembled from a nickel (II) tetraazamacrocyclic cation and 4,4'-(dimethylsilanediyl)diphthalate(3-) linker; S.P. Gavrish, **S. Shova, M. Cazacu**, Y.D. Lampeka; Acta Crystallographica Section C: Structural Chemistry 76 (Part 3), 419-426 (2020) (FI_{2023} = 0.8) (Q_{FI} = Q4)	Q4	0.117	0.029
14.	Syntheses and crystal structures of the one-dimensional coordination polymers formed by $[Ni(cyclam)]^{2+}$ cations and 1,3-bis(3-carboxypropyl)tetramethyldisiloxane anions in different degrees of deprotonation; S.P. Gavrish, **S. Shova, M. Cazacu, M. Dascalu**, Y.D. Lampeka; Acta Crystallographica Section E: Crystallographic Communications 76(Part 3), 446-451(2020) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.014
15.	Crystal structure of the onedimensional coordination polymer formed by the macrocyclic $[Ni(cyclam)]^{2+}$ cation and the dianion of diphenylsilanediylbis(4-benzoic acid); S.P. Gavrish, **S. Shova, M. Cazacu**, Y.D. Lampeka; Acta Crystallographica Section E: Crystallographic Communications 76, 929-932 (2020) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.018
16.	Dinuclear manganese(III) complexes with bioinspired coordination and variable linkers showing weak exchange effects:	Q1	0.577	0.052

	a synthetic, structural, spectroscopic and computation study; **S. Shova, A. Vlad, M. Cazacu,** J. Krzystek, A. Ozarowski, M. Malcek, L. Bucinsky, P. Rapta, J. Cano, J. Telser, V.B. Arion; Dalton Trans., 48(18), 5909-5922 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)			
17.	Hydrophobic, amorphous metal-organic network readily prepared by complexing the aluminum ion with a siloxane spaced dicarboxylic acid in aqueous medium; **M. Cazacu, G.O. Turcan - Trofin, A. Vlad, A. Bele, S. Shova**, A. Nicolescu, **A. Bargan**; J. Appl. Polym. Sci. 136 (9), 47144 (2019) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052
18.	Amphiphilic silicone-bridged bis-triazoles as effective, selective metal ligands and biologically active agents in lipophilic environment; **G.O. Turcan-Trofin, M.-F. Zaltariov**, G. Roman, **S. Shova,** N. Vornicu, M. Balan-Porcarasu, D. L. Isac, A. Neamtu, **M. Cazacu**; J. Mol.Liq. 294, 111560 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.074
19.	Synthesis, structural characterization and biological studies of new Schiff bases containing trimethylsilyl groups; **M.F. Zaltariov**, M. Avadanei, M. Balan, D. Peptanariu, N. Vornicu, **S. Shova**; J. Mol. Struct. 1175, 624-631 (2019) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331	0.055
20.	Crystal structures of 5-bromo-1-arylpyrazoles and their halogen bonding features; M.M. Popa, **S. Shova, M. Dascalu**, M.R. Caira, F. Dumitrascu; CrystEngComm 25, 86-94 (2023) (FI_{2023} = 3.1) (Q_{FI} = Q3)	Q2	0.464	0.093
21.	X-ray structure elucidation of a Pt-metalloporphyrin and its application for obtaining sensitive AuNPs-plasmonic hybrids capable of detecting triiodide anions; E. Fagadar-Cosma, A. Lascu, **S. Shova, M.F. Zaltariov**, M. Birdeanu, L. Croitor, A. Balan, D. Anghel, S. Stamatin; Int. J. Mol. Sci. 20, 710 (2019) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.030	0.11444
22.	Structural diversity in proline-based lead bromide chiral perovskites; V.Y. Sirenko, O.I., Kucheriv, I.O., Fritsky, E. Gumienna-Kontecka, I.A. Dascalu, **S. Shova**, I.A. Gural'skiy; Dalton Transactions 52(30), 10545-10556 (2023) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.082
23.	How metal nuclearity impacts electrocatalytic H_2 production in thiocarbohydrazone-based complexes; M. Papadakis, A. Barrozo, L. Delmotte, T. Straistari, **S. Shova**, M. Réglier, V. Krewald, S. Bertaina, R. Hardré, M. Orio; Inorganics 11(4), 149 (2023) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601	0.060
24.	Synthesis, characterization and cytotoxic evaluation of new pyrrolo[1,2-b]pyridazines obtained via mesoionic oxazolo-pyridazinones; B.-C. Ivan; S.-F. Barbuceanu, C.M. Hotnog, O.T. Olaru, A.I. Anghel, R.V. Ancuceanu, M.A. Mihaila, L.I. Brasoveanu, **S. Shova**, C. Draghici, G.M. Nitulescu, F. Dumitrascu; International Journal of Molecular Sciences 24(14),	Q2	1.030	0.086

	11642(2023) (FI_{2023} =5.6) (Q_{FI} = Q1)			
25.	Large ordered moment with strong easy-plane anisotropy and vortex-domain pattern in the kagome ferromagnet Fe_3Sn; L. Prodan, D.M. Evans, S.M. Griffin, A. Ostlin, M. Altthaler, E. Lysne, I.G. Filippova, **S. Shova**, L. Chioncel, V. Tsurkan, I. Kezsmarki; Applied Physics Letters 123 (2), 021901(2023) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q1	0.891	0.081
26.	Quantum dots assembled from an aziridinium based hybrid perovskite displaying tunable luminescence; O.A. Semenikhin, O.I. Kucheriv, L. Sacarescu, **S. Shova**, I.A. Gural'skiy; Chemical Communications 59(24), 3566-3569(2023) (FI_{2023} = 4.9) (Q_{FI} =Q2)	Q2	1.033	0.207
27.	Synthesis, characterization and magnetochemical study of cobalt, nickel and manganese coordination polymers; O. Cuzan, **S. Shova**, G. Novitchi, V. Lozan; Inorganica Chimica Acta 553, 121526 (2023) (FI_{2023} = 2.8) (Q_{FI} = Q2)	Q3	0.284	0.071
28.	Synthesis, characterization and antiproliferative activity of platinum (II) complexes with 3-(2-pyridyl)-N1, 2-methyl-1, 2, 4-triazoles; Y.M. Ohorodnik, D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, **S. Shova**, M.V Babak, M.NM. Milunovic, R.D. Lampeka; Inorganica Chimica Acta 556, 121646 (2023) (FI_{2023} = 2.8) (Q_{FI} = Q2)	Q3	0.284	0.036
29.	The role of halogen bonding in the interaction landscape directing the crystal packing in a homologous series of halogenated coumarin derivatives; M.M. Popa, D.G. Dumitrescu, **S. Shova**, I. Man, A. Van der Lee, F. Dumitrascu; Journal of Molecular Structure 1292, 136112 (2023) (FI_{2023} =3.8) (Q_{FI} = Q2)	Q4	0.331	0.055
30.	A Chain of vertex-sharing {CoIII2CoII2}n squares with single-ion magnet behavior; M.G. Alexandru, D. Visinescu, **S. Shova**, J. Cano, N. Moliner, F. Lloret, M. Julve; Magnetochemistry 9(5), 130 (2023) (FI_{2023} = 2.7) (Q_{FI} = Q2)	Q3	0.354	0.051
31.	Novel strigolactone mimics that modulate photosynthesis and biomass accumulation in chlorella sorokiniana; D.G. Popa, F. Georgescu, F. Dumitrascu, **S. Shova**, D. Constantinescu-Aruxandei, C. Draghici, L. Vladulescu, F. Oancea; Molecules 28 (20) (2023) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.083
32.	Synthesis and antimicrobial activity evaluation of homodrimane sesquiterpenoids with a benzimidazole unitquiterpenoids with a benzimidazole unit; L. Lungu, S. Blaja, C. Cucicova, A. Ciocarlan, A. Barba, V. Kulciţki, **S. Shova**, N. Vornicu, E.-I. Geana, I.I. Mangalagiu, A. Aricu; Molecules 28(3), 933 (2023) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.060
33.	1,3-Dipolar cycloaddition of cycloimmonium salts and 4-(trimethylsilyl)-3-butyn-2-one to access new functionalized indolizines with potential cytostatic activity; A. Zubas, A. Ghinet, **S. Shova**, E. Bicu; New Journal of Chemistry 47, 3758-3772 (2023) (FI_{2023} = 3.3) (Q_{FI} =Q2)	Q3	0.444	0.111

34.	The influence of structural isomerism on luminescence properties of [Re(CO)(2)(dppv)(pbi)] complexes containing cis-1,2-bis(diphenylphosphino)-ethene and 2-(2-pyridyl)benzimidazole ligands; A. Kamecka, A. Kapturkiewicz, **S. Shova**, K. Suwinska; Structural Chemistry 34, 1641-1655 (2023) (FI_{2023} = 1.7) (Q_{FI} = Q3)	Q3	0.187	0.047
35.	Iron(III) complexes with ditopic macrocycles bearing crown-ether and bis(salicylidene) isothiosemicarbazide moieties; V.B. Arion, O. Palamarciuc, **S. Shova**, G. Novitchi, P. Rapta; Journal of the Serbian Chemical Society 1-21 (2023) (FI_{2023} = 1.0) **(Q_{FI} = Q4)**	Q4	0.147	0.030
36.	Crystal structure of 3-(4-bromophenyl)-5-methyl-1H-pyrazole, $C_{10}H_9BrN_2$; D. Kocovic, S. Mugosa, **S. Shova**, Z.D. Tomic; Zeitschrift für Kristallographie - New Crystal Structures 238 (5) 863-865 (2023) (FI_{2023} = 0.3) (Q_{FI} = Q4)	Q4	0.014	0.004
37.	Synthesis and crystal structure of a new copper(II) complex based on 5-ethyl-3-(pyridin-2-yl)-1,2,4-triazole; Y.P. Petrenko, D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, **S. Shova**, R.D. Lampeka; Acta Crystallographica Section E Crystallographic Communications E79, 432-435 (2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.012
38.	Crystal structures of the complexes containing macrocyclic cations $[M(cyclam)]^{2+}$(M = Ni, Zn) and tetraiodidocadmate($^{2-}$) anion; I.L. Andriichuk, **S. Shova**, Y.D. Lampeka; Acta Crystallographica Section E Crystallographic Communications E79, 821-826 (2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.0233
39.	Crystal structure of bis{3-(3,4-dimethoxyphenyl)-5-[6-(pyrazol-1-yl)pyridin-2-yl]-1,2,4-triazol-3-ato}iron(II)–methanol–chloroform (1/2/2); K. Znovjyak, I.O. Fritsky, T.Y. Sliva, V.M. Amirkhanov, S.O. Malinkin, **S. Shova**, M. Seredyuk; Acta Crystallographica Section E Crystallographic Communications *E79*, 962-966 (2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.01
40.	Crystal structure of bis(3-carboxy-1-methylpyridinium) octabromide; V.Y. Sirenko, D.D. Naumova, I.A. Golenya, **S. Shova,** I.A. Gural'skiy; Acta Crystallographica Section E Crystallographic Communications E79, 977-981(2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.014
41.	Carbon dioxide capture from air leading to bis[N-(5-methyl-1H-pyrazol-3-yl-κN2)carbamato-κO]copper(II) tetrahydrate; V.Y. Sirenko, I. S. Kuzevanova, O.S. Vynohradov, D.D. Naumova, **S. Shova**; Acta Crystallographica Section E Crystallographic Communications E79, 988-992 (2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.014
42.	Crystal structure and Hirshfeld surface analysis of poly[[tetraaqua(μ-1,3,4,7,8,10,12,13,16,17,19,22-dodecaazatetracyclo[8.8.4.13,17.18,12] tetracosane - 5,6,14,15,20,21-hexaonato)iron(IV)dilithium] tetrahydrate]; M.O. Plutenko, **S. Shova**, V.A. Pavlenko, I.A. Golenya, I.O. Fritsky; Acta Crystallographica Section E Crystallographic Communications E79, 1059-1062(2023) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.014

43.	Novel antimicrobial iodo-dihydro-pyrrole-2-one compounds; C.M. Al-Matarneh, A. Nicolescu, A; I.C. Marinas, M.C. Chifiriuc, **S. Shova**, M. Silion, M. Pinteala; Future Medicinal Chemistry 15(15) (2023) (FI_{2023} = 4.2) (Q_{FI} = Q2)	Q1	0.712	0.102
44.	New betulin imine derivatives with antioxidant and selective antitumor activity; M.M. Iftime, G.L., Ailiesei, **S. Shova**, C. Miron, H. Tanaka, M. Hori, L. Marin, New Journal of Chemistry 47(35), 16551-16563 (2023) (FI_{2023} = 3.3) (Q_{FI} =Q2)	Q3	0.444	0.063
45.	Mesitylene tribenzoic acid as a linker for novel Zn/Cd metal-organic frameworks; D. Bejan, I.-A. Dascalu, S. Shova, A.F. Trandabat, L.G. Bahrin; Materials 15(12), 4247 (2022) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511	0.102
46.	1D iron(II)-1,2,4-triazolic chains with spin crossover assembled from discrete trinuclear complexes; S.I. Shylin, **S. Shova,** H.J. Shepherd, V. Ksenofontov, W. Tremel, I.A. Gural'skiy; Dalton Transactions 51, 2364-2369 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.097
47.	Diastereomeric dinickel(II) complexes with non-innocent bis(octaazamacrocyclic) ligands: isomerization, spectroelectrochemistry, DFT calculations and use in catalytic oxidation of cyclohexane; A. Dobrov, D. Darvasiová, M. Zalibera, L. Bučinský, I. Jelemenská, P. Rapta, **S. Shova,** D.G. Dumitrescu, M.A. Andrade, L.M.D.R.S.Martins, A.J.L. Pombeiro, V.B. Arion; Dalton Transactions 51, 5151-5167 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.048
48.	Chiral 2D organic-inorganic hybrid perovskites based on L-histidine; V. Sirenko, O.I. Kucheriv, E. Gumienna-Kontecka, I.A. Gural'skiy, **S. Shova**; Dalton Transactions 43, 51, 16536-16544 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.750	0.150
49.	Investigation by chemical substitution within 2p-3d-4f clusters of the cobalt(II) role in the magnetic behavior of [vdCoLn]2 (vd = verdazyl radical); G. Novitchi, **S. Shova**, C. Train; Inorganic Chemistry 61(43) (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750	0.250
50.	Two-step spin crossover in Hofmann-type coordination polymers [Fe(2-phenylpyrazine)2{M(CN)2}2] (M = Ag, Au); V.M. Hiiuk, S.I. Shylin, D.D. Barakhtii, D.M. Korytko, V.O. Kotsyubynsky, A. Rotaru, **S. Shova**, I.A. Gural'skiy; Inorganic Chemistry 61, 4, 2093–2104 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750	0.107
51.	Cooperative spin crossover above room temperature in the iron(II) cyanoborohydride–pyrazine complex; Y.S. Bibik, **S. Shova**, A. Rotaru, S.I. Shylin, I.O. Fritsky, R.D. Lampeka, I.A. Gural'skiy; Inorganic Chemistry 61, 37, 14761–14769 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750	0.107
52.	Aziridinium cation templating 3D lead halide hybrid perovskites; H.R. Petrosova, O.I. Kucheriv, **S. Shova,** I.A. Gural'skiy; Chemical Communications, 58, 5745-5748 (2022) (FI_{2023} = 4.9) (Q_{FI} = Q2)	Q2	1.033	0.258
53.	Four-step spin crossover in a new cyano-bridged iron-silver	Q2	0.918	0.115

	coordination polymer. O.I. Kucheriv, S.I. Shylin, V.Y. Sirenko, V. Ksenofontov, W. Tremel, I.A. Dascălu, **S. Shova**, I.A. Gural'skiy; Chemistry A European Journal 28, e202200924(1-7) (2022) (FI_{2023} = 4.3) (Q_{FI} = Q2)			
54.	New cyanido-bridged complexes of Zn(II) and/or Ag(I) with TPymT and Tptz ligands: synthesis, structural and fluorescent properties; D. Visinescu, **S. Shova**, D.-L. Popescu, M.-G. Alexandru; Crystals *12*(11), 1618 (2022) (FI_{2023} = 2.7) (Q_{FI} = Q2)	Q2	0.424	0.106
55.	Highly porous cyanometallic spin-crossover frameworks employing pyridazino[4,5-d]pyridazine bridge, V.M. Hiiuk, **S. Shova**, K.V. Domasevitch, I.A. Gural'skiy; Inorganics 10(11), 195 (2022) (FI_{2023} = 2.9) (Q_{FI} = Q2)	Q2	0.426	0.107
56.	New pyrrole derivatives as promising biological agents: design, synthesis, characterization, in silico, and cytotoxicity evaluation; B.-C. Ivan, S.-F. Barbuceanu, C.M. Hotnog, A.I. Anghel, R.V. Ancuceanu, M.A. Mihaila, L.I. Brasoveanu, **S. Shova**, C. Draghici, O.T. Olaru, G. M. Nitulescu, M. Dinu, F. Dumitrascu; International Journal of Molecular Sciences 23(16), 8854 (2022) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.030	0.079
57.	Mono- and oligonuclear complexes based on a o-vanillin derived Schiff-base ligand: Synthesis, crystal structures, luminescent and electrochemical properties; I.Buta, **S. Shova**, S. Ilies, F. Manea, M. Andruh, O. Costisor; Journal of Molecular Structure 1248, 131439 (2022) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331	0.055
58.	Solvatomorphism, polymorphism and spin crossover in bis[hydrotris(1,2,3-triazol-1-yl)borate]iron(II); O. Horniichuk, K. Ridier, G. Molnar, V. Kotsyubynsky, **S. Shova,** V. Amirkhanov, I.A. Gural'skiy, L. Salmon, A. Bousseksou; New Journal of Chemistry 46, 11734-11740 (2022) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.444	0.049
59.	Solid phase luminescence and thermal transformations of palladium(II) complexes with 3-(2-pyridyl)-1,2,4-triazoles; B.V. Zakharchenko, D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, I.V. Fesych, V.S. Starova, N.V. Rusakova, S.S. Smola, **S. Shova,** R.D. Lampeka; Theoretical and Experimental Chemistry 57, 358-365 (2022) (FI_{2023} = 1.0) (Q_{FI} = Q4)	Q4	0.115	0.012
60.	Crystal structure of poly[[di-aqua-tetra-μ2-cyanido-platinum(II)iron(II)] methanol 4/3-solvate]: a three-dimensional Hofmann clathrate analogue; V.M. Hiiuk, V. Mykhailovych, S. **Shova,** I.A. Golenya, I.A. Gural'skiy; Acta Crystallographica Section E Crystallographic Communications E78, 216-219 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.014
61.	*catena*-Poly[[tetra-kis-(3,5-dimethyl-1*H*-pyrazole-κN^2)copper(II)]-μ_2-sulfato-κ ^{2}O:O′]:crystal structure and Hirshfeld surface analysis of a Cu^{II} coordination polymer; O.S. Vynohradov, A. Dovzhik, V.A. Pavlenko, D.D. Naumova, I.A. Golenya, **S. Shova;** Acta Crystallographica Section E Crystallographic Communications E78, 433-438 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.012

62.	Synthesis and crystal structure of diaqua(1,4,8,11-tetraazacyclotetradecane)zinc(II) bis(hydrogen 4-phosphonatobiphenyl-4′-carboxylato)(1,4,8,11-tetraazacyclotetradecane)zinc(II); L.V. Tsymbal, I.L. Andriichuk, V. Lozan, **S. Shova,** Y.D. Lampeka; Acta Crystallographica Section E Crystallographic Communications E78, 625-628 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.014
63.	Crystal structure of bis{3-(3-bromo-4-methoxyphenyl)-5-[6-(1H-pyrazol-1-yl)pyridin-2-yl]-1,2,4-triazol-3-ato}iron(II) methanol disolvate, K. Znovjyak, I.O. Fritsky, T.Y. Sliva, V.M. Amirkhanov, S.O. Malinkin, **S. Shova**, M. Seredyuk; *Acta Cryst.* E**78**, 1138-1142 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.010
64.	Crystal structure and Hirshfeld surface analysis of dichloridotetrakis(4-methyl-1H-pyrazole-κN 2)nickel(II) acetonitrile disolvate; O.S. Vynohradov; Y.M. Davydenko; V.A. Pavlenko; D.D. Naumova; **S. Shova**; D. Petlovanyi; Acta Crystallographica Section E Crystallographic Communications E78, 1156-1160 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.012
65.	Crystal structure of bis{3-(3,5-dichlorophenyl)-5-[6-(1 H -pyrazol-1-yl)pyridin-2-yl]-4 H -1,2,4-triazol-4-ido}iron(II) methanol disolvate; K. Znovjyak, M. Seredyuk, I.O. Fritsky, T.Y. Sliva, V.M. Amirkhanov, S.O. Malinkin, **S. Shova**; Acta Crystallographica Section E Crystallographic Communications E78, 1173-1177 (2022) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.010
66.	Coumarin-based triapine derivatives and their copper(II) complexes: Synthesis, cytotoxicity and mR2 RNR inhibition activity; I. Stepanenko, M.V. Babak, G. Spengler, M. Hammerstad, A. Popovic-Bijelic, **S. Shova**, G.E. Buchel, D. Darvasiova, P. Rapta, V.B. Arion; Biomolecules 11(6), 862 (2021) (FI_{2023} = 5.5) (Q_{FI} = Q1)	Q2	0.972	0.108
67.	Cyanido-bridged {Fe(III)Ln(III)} heterobimetallic chains assembled through the [Fe-III{HB(pz)(3)}(CN)(3)](-) complex as metalloligand: synthesis, crystal structure and magnetic properties; D. Visinescu, M.G. Alexandru, D.G. Dumitrescu, **S. Shova**, N. Moliner, F. Lloret, M. Julve; CrystEngComm 23 (26), 4615-4626 (2021) (FI_{2023} = 3.1) (Q_{FI} = Q1)	Q2	0.464	0.066
68.	Spin crossover in iron(II) Hofmann clathrates analogues with 1,2,3-triazole; IS. Kuzevanova, O.I. Kucheriv, V.M. Hiiuk, D.D. Naumova, **S. Shova**, S.I. Shylin, VO. Kotsyubynsky, A. Rotaru, I.O. Fritsky, I.A. Gural'skiy; Dalton Transactions 50 (26), 9250-9258 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.058
69.	A rare isostructural series of 3d-4f cyanido-bridged heterometallic squares obtained by assembling [Fe-III{HB(pz)(3)}(CN)(3)](-) and Ln(III) ions: synthesis, X-ray structure and cryomagnetic study; M.G. Alexandru, D. Vișinescu, B. Cula, **S. Shova**, R. Rabelo, N. Moliner, F. Lloret, J. Cano, M. Julve; Dalton Transactions 50, 14640-14652 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.0641

70.	Co(II), Cu(II), Mn(II), Ni(II), Pd(II), and Pt(II) complexes of bidentate Schiff base ligand: Synthesis, crystal structure, and acute toxicity evaluation; G. Lupascu, E. Pahonțu, **S. Shova**, S.F. Bărbuceanu, M. Badea, C. Paraschivescu, J. Neamțu, M. Dinu, R.V. Ancuceanu, D. Drăgănescu, C.E. Dinu-Pîrvu; Applied Organometallic Chemistry 35, e6149 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.036
71.	Synthesis and characterization of [4-{$(CH_2O)(2)CH$}C_6H_4](2)Hg, [4-$(O{=}CH)C_6H_4$](2)Hg and [(E)-4-$(RN{=}CH)C_6H_4$](2)Hg (R=2'-py, 4'-py, 2'-pyCH(2), 4 '-pyCH(2)); L. Kiss, A. Pop, **S. Shova**, C.I. Rat, C. Silvestru; Applied Organometallic Chemistry 35(9), 6339 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.078
72.	Expanding manganese(IV) aqueous chemistry: unusually stable water-soluble hexahydrazide clathrochelate complexes; S.I. Shylin, J.L. Pogrebetsky, A.O. Husak, D. Bykov, A. Mokhir, F. Hampel, **S. Shova**, A. Ozarowski, E. Gumienna-Kontecka, I.O. Fritsky; Chemical Communications 57, 11060-11063 (2021) (FI_{2023} = 4.9) (Q_{FI} = Q2)	Q2	1.033	0.103
73.	Coordination polymers of the macrocyclic nickel(II) and copper(II) complexes with isomeric benzenedicarboxylates: The case of spatial complementarity between the bis-macrocyclic complexes and o-phthalate; L.V. Tsymbal, I.L. Andriichuk, **S. Shova**, D. Trzybiński, K. Woźniak, V.B. Arion, Y.D. Lampeka; Crystal Growth&Design 21, 4, 2355–2370 (2021) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q2	0.584	0.083
74.	Isomorphic channel-type pseudopolymorphs of azathioprine: From structural confirmations to a rational polymorph screening approach; D. Samohvalov, M.A. Lungan, **S. Shova**, A. Barbatu, D. Gherca, C.M. Manta; Crystal Growth&Design 21(9), 4837-4846 (2021) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q2	0.584	0.097
75.	An alternative approach to the synthesis of [1,2,4]triazolo[1,5-a]pyridine-8-carbonitriles, their crystal structure, and DFT calculations; D.M. Khomenko, T.V. Shokol, R.O. Doroshchuk, V.S. Starova, I.V. Raspertova, **S. Shova**, R.D. Lampeka, Y.M. Volovenko; Journal of Heterocyclic Chemistry 58 (6), 1278-1285 (2021) (FI_{2023} = 2.4) (Q_{FI} = Q2)	Q3	0.227	0.028375
76.	Synthesis of 1-(2-fluorophenyl)pyrazoles by 1,3-dipolar cycloaddition of the corresponding sydnones; D. Dumitrescu, **S. Shova**, C. Draghici, M.M. Popa, F. Dumitrascu; Molecules 26 (12), 3693 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.132
77.	Chiral organic-inorganic lead halide perovskites based on alpha-alanine; V.Y. Sirenko, O.I. Kucheriv, D.D. Naumova, I.V. Fesych, R.P. Linnik, I.A. Dascălu, **S. Shova**, I.O. Fritsky, IA. Gural'skiy; New Journal of Chemistry 45 (28), 12606-12612 (2021) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.274	0.030
78.	Slow relaxation of the magnetization in a {(CoMnIII)-Mn-III} heterometallic brick-wall network; M.G. Alexandru, D. Vișinescu,	Q3	0.274	0.039

	S. Shova, S.E. Stiriba, J. Cano, F. Lloret, M. Julve; Polyhedron 200, 115118 (2021) (FI_{2023} = 2.6) (Q_{FI} = Q2)			
79.	An investigation of two copper(II) complexes with a triazole derivative as a ligand: magnetic and catalytic properties; Y.P. Petrenko, K. Piasta, D.M. Khomenko, R.O. Doroshchuk, **S. Shova**, G. Novitchi, Y. Toporivska, E. Gumienna-Kontecka, LMDRS. Martins, R.S. Lampeka; RSC Advances 11 (38), 23442-23449 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.570	0.057
80.	Cis-Palladium(II) complex incorporating 3-(2-pyridyl)-5-methyl-1,2,4-triazole: structure and cytotoxic activity; B.V. Zakharchenko, D.M. Khomenko, R.O. Doroschuk, I.V. Raspertova, **S. Shova**, A.G. Grebinyk, I.I. Grynyuk, S.V. Prylutska, O.P. Matyshevska, M.S. Slobodyanik, M. Frohme, R.D. Lampeka; Chemical Papers 75 (9), 4899-4906 (2021) (FI_{2023} = 2.2) (Q_{FI} = Q3)	Q3	0.248	0.021
81.	An original 3D coordination polymer constructed from trinuclear nodes and tetracarboxylato spacers; A.S. Dinca, A. Dogaru, A.E. Ion, S. Nica, D. Dumitrescu, **S. Shova**, F. Lloret, M. Julve, A. Andruh; CRYSTENGCOMM 23 (6), 1332-1335 (2021) (FI_{2023} = 3.1) (Q_{FI} = Q3)	Q3	0.464	0.052
82.	Noncovalent interactions in the architectures with substituted salicylaldehyde semicarbazones; L.N. Cuba, E.C. Gorincioi, D.P. Drăgancea, **S. Shova**, P.N. Bourosh; Russian Journal of Coordination Chemistry 47 (7), 488-501 (2021) (FI_{2023} = 1.9) (Q_{FI} = Q3)	Q4	0.110	0.022
83.	Synthesis of α-substituted 2-(1H-1,2,4-triazol-3-yl)acetates and 5-amino-2,4-dihydro-3H-pyrazol-3-ones via the Pinner strategy; D.M. Khomenko, R.O. Doroshchuk, H.V. Ivanov, B.V. Zakharchenko, I.V. Raspertova, O.V. Vaschenko, **S. Shova**, A.V. Dobrydnev, Y.S. Moroz, O.O. Grygorenko, R.D. Lampeka; Tetrahedron Letters 69, 152956 (2021) (FI_{2023} = 1.8) (Q_{FI} = Q3)	Q3	0.312	0.028
84.	{2,6-Bis[(Dimethylamino)methyl]phenyl}mercury(II) acetate, [2,6-$(Me_2NCH_2)_2C_6H_3$]Hg(OAc) - A useful intermediate for selective palladation of 1,3-$(Me_2NCH_2)2C_6H_2$; L. Kiss, **S. Shova**, M. Vlassa, A. Silvestru, C.I. Rat, C. Silvestru; Revue Roumaine de Chimie 66 (2), 167-177 (2021) (FI_{2023} = 0.5) (Q_{FI} = Q4)	Q4	0.052	0.009
85.	Crystal structure of (N1,N3-bis{[1-(4-methoxybenzyl)-1H-1,2,3-triazol-4-yl]methylidene}-2,2-dimethylpropane-1,3-diamine)bis(thiocyanato)iron(II); K. Znovjyak, M. Seredyuk, S.O. Malinkin, I.A. Golenya, T.Y. Sliva, **S. Shova**, N.U. Mulloev; Acta Crystallographica Section E: Crystallographic Communications 77, 495-499, (2021) (FI_{2023} = -) (Q_{FI} = -) (AIS_{2022} = 0.070) (Q_{AIS} = -)	-	0.070	0.010
86.	Crystal structure of {N^1,N^3-bis[(1-tert-butyl-1H-1,2,3-triazol-4-yl)methylidene]-2,2-dimethyl-propane-1,3-diamine}bis(thiocyanato)iron(II); K. Znovjyak, M. Seredyuk, S.O. Malinkin, I.O. Golenya, V.M. Amirkhanov, **S. Shova**, N.U. Mulloev; Acta Crystallographica Section E: Crystallographic	-	0.070	0.010

	Communications 77(Pt 5), 573–578 (2021) (FI_{2023} = -) (Q_{FI} = -)			
87.	1-(4-Carboxyphenyl)-5-methyl-1H-1,2,3-triazole-4-carboxylic acid - A versatile ligand for the preparation of coordination polymers and mononuclear complexes; B.I. Bratanovici, **S. Shova**, V. Lozan, I.A. Dascălu, R. Ardeleanu, G. Roman; Polyhedron 200, 115115 (2021) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.046
88.	Synthesis, crystal structure and luminescent properties of isoreticular lanthanide-organic frameworks based on a tetramethyl-substituted terphenyldicarboxylic acid; I.A. Dascălu, E.A. Mikhalyova, **S. Shova**, B.I. Bratanovici, R. Ardeleanu, N. Marangoci, V. Lozan, G. Roman; Polyhedron 194, 114929 (2021) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.034
89.	Synthesis and properties of new fused pyrrolo-1,10-phenan-throline type derivatives; C. Al-Matarneh, I. Roşca, **S. Shova**, R. Dănac; Journal of The Serbian Chemical Society 86 (10), 901-915 (2021) (FI_{2023} = 1.0) **(Q_{FI} = Q4)**	Q4	0.147	0.037
90.	Insight into the anticancer activity of copper(II) 5-methylenetrimethylammonium thiosemicarbazonates and their interaction with organic cation transporters; M.N.M. Milunovi´c, O. Palamarciuc, A. Sirbu, **S. Shova**, D. Dumitrescu, D. Dvoranová, P. Rapta, T.V. Petrasheuskaya, E.A. Enyedy, G. Spengler, M. Ilic, H.H. Sitte, G. Lubec, V.B. Arion; Biomolecules 10, 1213 (2020) (FI_{2023} = 5.5) (Q_{FI} = Q1)	Q2	0.972	0.069
91.	Spin crossover in 2D iron(II) phthalazine cyanometallic complexes; V.M. Hiiuk, **S. Shova**, A. Rotaru, A.A. Golub, I.O. Fritsky, I.A. Guralskiy; Dalton Transactions 49, 5302-5311 (2020) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.096
92.	Hofmann-like frameworks Fe(2-methylpyrazine)n $[M(CN)_2]_2$ (M=Au, Ag): Spin-crossover defined by the precious metal; S.I. Shylin, O.I. Kukeriv, **S. Shova**, V. Ksenofontov, W. Tremel, I.A. Guralskiy; Inorganic Chemistry 59, 6541-6549 (2020) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750	0.125
93.	Neutral lipophilic palladium(II) complexes and their applications in electrocatalytic hydrogen production and C-C coupling reactions; O. Cuzan-Munteanu, D. Sirbu, M. Giorgi, **S. Shova**, E. Gibson, M. Reglier, M. Orio, L.M.D.R.S. Martins, A.C. Benniston; European Journal of Inorganic Chemistry 10, 813-822 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q2)	Q2	0.393	0.044
94.	Role of the main and auxiliary ligands in the nuclearity of Cu-Ln complexes; J.P. Costes, M.J. Rodriguez Douton, **S. Shova**, L. Vendier; European Journal of Inorganic Chemistry 4, 382-393 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q2)	Q2	0.393	0.098
95.	Synthesis, crystal structure and magnetic properties of new copper(II) complexes based on 3-(2-pyridyl)-1,2,4-triazole; Y.P. Petrenko, D.M. Khomenko, R.O. Doroshchuk, **S. Shova**, G. Novitchi, K. Piasta, E. Gumienna-Kontecka, R.D. Lampeka; Inorganica Chimica Acta 500, Article 119216/1-7 (2020) (FI_{2023} =	Q3	0.284	0.036

	2.8) (Q_{FI} = Q2)			
96.	Introducing chirality in halogenated 3-arylsydnones and their corresponding 1-arylpyrazoles obtained by 1,3 dipolar cycloaddition, M.M. Popa, **S. Shova**, M. Hrubaru, L. Barbu, C. Draghici, F. Dumitrascu, D.E. Dumitrescu; RSC Advances 10, 15656-15664 (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.570	0.081
97.	Synthesis and evaluation of biological activity of homodrimane sesquiterpenoids bearing 1,3,4-oxadiazole and 1,3,4-thiadiazole units; L. Lungu, A. Ciocarlan, C. Smigon, I. Ozer, **S. Shova**, I. Gutu, N. Vornicu, I. Mangalagiu, M. D'Ambrosio, A. Aricu; Chemistry of Heterocyclic Compounds 56, 578-585 (2020) (FI_{2023} = 1.5) (Q_{FI} = Q3)	Q3	0.177	0.018
98.	Crystal structure of dichlorido-1jCl,2jCl-(l2-3,5-dimethyl-1H-pyrazolato-1jN2:2jN1)(3,5-dimethyl-1H-pyrazole -2jN2){l-2-[(2-hydroxyethyl)amino-1j2N,O]ethanolato-1:2j2O:O}dicopper(II); O.S. Vynohradov, V.A. Pavlenko, I.S. Safyanova, K. Znovjyak, **S. Shova**, S.M. Safarmamadovc; Acta Crystallographica Section E: Crystallographic Communications E76, 1503–1507 (2020) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.012
99.	Electrically driven artificial muscles using novel polysiloxane elastomers modified with nitroaniline push-pull moieties; E. Perju, **S. Shova**, D.M. Opris; ACS Applied Materials and Interfaces 12, 23432-23442 (2020) (FI_{2023} = 9.5) (Q_{FI} = Q1)	Q1	1.660	0.553
100.	Phenothiazine based co-crystals with enhanced luminescence; L. Marin, A. Bejan, **S. Shova**; Dyes and Pigments 175, 108164/1-9 (2020) (FI_{2023} = 4.5) (Q_{FI} =Q1)	Q1	0.509	0.170
101.	New microporous lanthanide organic frameworks. Synthesis, structure, luminescence, sorption and catalytic acylation of 2-naphthol; D. Bejan, L.G. Bahrin, **S. Shova**, N.L. Marangoci, U. Kokcam-Demir, V. Lozan, C. Janiak; Molecules, 25, 3055/1-15 (2020) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q3	0.660	0.094
102.	Design and synthesis of novel ditopic ligands with a pyrazole ring in the central unit; B.I. Bratanovici, A. Nicolescu, **S. Shova**, I.A. Dascalu, R. Ardeleanu, V. Lozan, G. Roman; Research on Chemical Intermediates 46, 1587-1611 (2020) (FI_{2023} = 3.3) (Q_{FI} =Q2)	Q3	0.294	0.042
103.	Synthesis, characterization, molecular docking studies and in vitro screening of new metal complexes with Schiff base as antimicrobial and antiproliferative agents; E. Pahontu, M. Proks, **S. Shova,** G. Lupascu, D. - C. Ilies, T.F. Bărbuceanu, L.I. Socea, M. Badea, V. Păunescu, D.Istrati, A. Gulea, D. Drăgănescu, C. Elena, D. Pîrvu; Appl. Organomet. Chem. https://doi.org/10.1002/aoc.5185 (2019) (FI_{2023} = 3.9) (Q_{FI} = Q1)	Q2	0.391	0.028
104.	In situ generation of Ph_3PO in cyanido-bridged heterometallic {Fe(III)Ln(III)}(2) molecular squares (Ln = Eu, Sm); M.G. Alexandru, D. Visinescu, ; B. Braun-Cula, **S. Shova**, F. Lloret, M. Julve; Dalton Trans. 48(22), 7532-7536 (2019) (FI_{2023} = 4.0) (Q_{FI}	Q1	0.577	0.096

	= Q1)			
105.	Heterometallic 3d–4d coordination polymers assembled from trans-[RuIII(L)(CN)2]−tectons and 3d cations; G. Marinescu, A.M. Madalan, C. Maxim, **S. Shova**, R. Clérac, M. Andruh; Dalton Trans. 48, 15455-15464 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.096
106.	High relaxation barrier in neodymium furoate-based field-induced SMMs; E. Bartolomé, A. Arauzo, J. Luzón, S. Melnic, **S. Shova**, D. Prodius, I.C. Nlebedim, F. Bartolomé, J. Bartolomé; Dalton Trans. 48, 15386-15396 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.064
107.	Slow relaxation in a {Tb_2Ba(alpha-fur)(8)}(n) polymer with Ln = Tb(III) non-Kramers ions; E. Bartolome, A. Arauzo, J. Luzon, S. Melnic, **S. Shova**, D. Prodius, J. Bartolome, A. Amann, M. Nallaiyan, S. Spagna; Dalton Trans. 48(15), 5022-5034 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.058
108.	Aggregation of [Ln(12)(III)] clusters by the dianion of 3-formylsalicylic acid. Synthesis, crystal structures, magnetic and luminescence properties; A.S. Dinca, A. Mindru, D. Dragancea, C. Tiseanu, **S. Shova**, S. Cornia, L.M. Carrella, E. Rentschler, M. Affronte, M. Andruh; Dalton Trans. 48(5), 1700-1708 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.058
109.	Generalization of the anthocyanins kinetics and thermodynamics multistate to 2,6-bis(2-hydroxybenzylidene)cyclohexanones; A. Alejo-Armijo, A.J. Moro, A.J. Parola, J.C. Lima, F. Pina, L. Corici, **S. Shova**, L. Cseh; Dyes Pigments, 163, 573-588 (2019) (FI_{2023} = 4.5) (Q_{FI} = Q1)	Q2	0.509	0.064
110.	Nickel(II) Complexes with Redox Noninnocent Octaazamacrocycles as Catalysts in Oxidation Reactions; A. Dobrov, D. Darvasiova, M. Zalibera, L. Bucinsky, I. Puskarova, P. Rapta, **S. Shova**, D. Dumitrescu, L.M.D.R.S. Martins, A.J.L. Pombeiro, V.B. Arion; Inorg. Chem. 58(16), 11133-11145 (2019) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.750	0.068
111.	Thermal analysis, synthesis and structural studies of heterometallic {Fe2MO} salicylate complexes; V. Gorinchoy, O. Cuzan-Munteanu, O. Petuhov, E. Melnic, V.Ch. Kravtsov, **S. Shova**; J. Thermal Anal. Calorim., https://doi.org/10.1007/s10973-019-08642-6 (2019) (FI_{2023} = 4.4) (Q_{FI} =Q1)	Q3	0.444	0.074
112.	Exploring isoxazoles and pyrrolidinones decorated with the 4,6-dimethoxy-1,3,5-triazine unit as human farnesyltransferase inhibitors; L. Lucescu, A. Ghinet, **S. Shova,** R. Magnez, X. Thuru, A. Farce, B. Rigo, D. Belei, J. Dubois, E. Bicu; Archiv. der Pharmazie 352(5), Article Number: 1800227 (2019) (FI_{2023} = 5.1) (Q_{FI} = Q2)	Q3	0.506	0.051
113.	Room temperature hysteretic spin crossover in a new cyanoheterometallic framework; V.M. Hiiuk, **S. Shova,** A. Rotaru, V. Ksenofontov, I.O. Fritsky, I.A. Gural'skiy; Chem. Commun. 55(23), 3359-3362 (2019) (FI_{2023} = 4.9) (Q_{FI} = Q2)	Q2	1.033	0.172
114.	Halogen bonding in 5-iodo-1-arylpyrazoles investigated in the	Q2	0.464	0.066

	solid state and predicted by solution ^{13}C-NMR spectroscopy; M.M. Popa, I. Man, C. Draghici, **S. Shova,** M.R. Caira, F. Dumitrascu, D. Dumitrescu; CrystEngComm, DOI: 10.1039/C9CE01263J (2019) (FI_{2023} = 3.1) (Q_{FI} = Q2)			
115.	Bichromophoric pyrazoline derivative with solvent-selective photoluminescence quenching; A.L. Chibac, G. Roman, C. Cojocaru, **S. Shova**, G. Sacarescu, M. Simionescu, L. Sacarescu; J. Mol. Liq. 278, 156-163 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.095
116.	Synthesis, crystal structure and magnetic properties of new copper(II) complexes based on 3-(2-pyridyl)-1,2,4-triazole; Y.P. Petrenko, D.M. Khomenko, R.O. Doroschuk, **S. Shova**, G. Novitchi, K. Piasta, E. Gumienna-Kontecka, R. D. Lampeka; Inorg. Chim. Acta https://doi.org/10.1016/j.ica.2019.119216 (2019) (FI_{2023} = 2.8) (Q_{FI} = Q2)	Q3	0.284	0.036
117.	The cytotoxic properties of some tricyclic 1,3-dithiolium flavonoids, L.G. Sarbu, **S. Shova,** D. Peptanariu, I.A. Sandu, L.M. Birsa, L.G. Bahrin; Molecules 24(13), Article Number: 2459 (2019) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.110
118.	Secondary compounds in the catalytic hydrogenation of enone and allylic alcohol prostaglandin intermediates: isolation, characterization, and X-ray crystallography; C.I. Tanase, F. Cocu, C. Draghici, A. Hanganu, L. Pintilie, M. Maganu, C.V.A. Munteanu, **S. Shova**; New J. Chem. 43(20), 7582-7599 (2019) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.444	0.056
119.	New palladium(II) complexes with 3-(2-pyridyl)-5-alkyl-1,2,4-triazole ligands as recyclable C-C coupling catalysts; B.V. Zakharchenko, D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, V.S. Starova, V.V. Trachevsky, **S. Shova**, O.V. Severynovska, L.M.D.R.S. Martins, A.J.L. Pombeiro, V.B. Arion, R.D. Lampeka; New J. Chem. 43(27), 10973-10984 (2019) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.444	0.037
120.	Investigation of the cytotoxic potential of methyl imidazole-derived thiosemicarbazones and their copper(II) complexes with dichloroacetate as a co-ligand, O. Palamarciuc, M.N.M. Milunovic, A. Sirbu, E. Stratulat, A. Pui, N. Gligorijevic, S. Radulovic, J. Kozisek, D. Darvasiova, P. Rapta, E.A. Enyedy, G. Novitchi, **S. Shova**, V.B. Arion; New J. Chem. 43(3), 1340-1357 (2019) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.444	0.034
121.	Coordination polymers and supramolecular solid-state architectures constructed from an organometallic tecton, bis(4-pyridyl)mercury; T. Mocanu, L. Kiss, A. Sava, **S. Shova,** C. Silvestru, M. Andruh; Polyhedron 166, 7-16 (2019) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.046
122.	Synthesis and evaluation of biological activity of homodrimane sesquiterpenoids bearing hydrazinecarbothioamide or 1,2,4-triazole unit; L. Lungu, A. Ciocarlan, A. Barba, **S. Shova,** S. Pogrebnoi, I. Mangalagiu, C. Moldoveanu, N. Vornicu, M.	Q3	0.177	0.015

	D'Ambrosio, M.V. Babak, V.B. Arion, A. Aricu; Chem. Heterocycl. Compd. 55(8), 716-724 (2019) (FI_{2023} = 1.5) (Q_{FI} = Q3)			
123.	Cascade reactions for constructing heterocycles containing a pyrimidino-pyrazino-pyrimidine core using 1,2,4-triazole scaffolds; D.M. Khomenko, R.O. Doroshchuk, I.V. Raspertova, J.G. López, F.L. Ortiz, **S. Shova,** O.A.I egorov, R.D. Lampeka; Tetrahedron Lett. 60(39), 151089 (2019) (FI_{2023} = 1.8) (Q_{FI} = Q3)	Q3	0.312	0.039
124.	Exploring the coordination abilities of 1,5-diisopropyl-3-(4′-carboxyphenyl)-6-oxoverdazyl; V. Kumar, **S. Shova**, G. Novitchi, C. Train; C.R. Chim. 22(6-7), 541-548 (2019) (FI_{2023} = 1.6) (Q_{FI} = Q4)	Q3	0.417	0.104
125.	Crystal structure of poly[[diaquatetra-mu(2)-cyanido-iron(II)platinum(II)] acetone disolvate; I.S. Kuzevanova, D.D. Naumova, K.V. Terebilenko, **S. Shova,** I.A. Gural'skiy; Acta Crystallographica Section E-Crystallographic Communications E75, 1536-1539 (2019) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.014
126.	Crystal structure of catena-poly[[gold(I)-μ-cyanido-[diaquabis(2-phenylpyrazine)iron(II)]-μ-cyaniao]dicyanidogold(I)]; O.I. Kucheriv, D.D. Barakhtii, S.O. Malinkin, **S. Shova,** I.A. Gural'skiy; Acta Crystallographica Section E-Crystallographic Communications E75, 1149-1152 (2019) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.014
127.	Synthesis, crystal structure and biological activity of new phosphoester-p-substituted-methylparabens; D. Serbezeanu, I.D. Carja, A. Nicolescu, M. Aflori, T. Vlad-Bubulac, M. Butnaru, R.F. Damian, S. Dunca, **S. Shova;** J. Mol. Struct. 1196, 637-646 (2019) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331	0.037
128.	Crystal smectic E revisited for(E)-N-(biphenyl-4-ylmethylene)-4-butylaniline– mesomorphism, crystal structure and FTIR study; V. Cozan, M. Avadanei, **S. Shova, M.-F. Zaltariov**; Lyq. Cryst. 46, 492-501 (2019) (FI_{2023} = 2.676) (Q_{FI} = Q2)	Q4	0.276	0.069
129.	Coordination polymers of Cu(II), Co(II) and Cd(II) based on a tetramethyl-substituted terphenyldicarboxylic acid; I.A. Dascalu, **S. Shova**, D.G. Dumitrescu, G. Roman, B.I. Bratanovici, R. Ardeleanu, V. Lozan; Polyhedron 170, 463-470 (2019) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.039
130.	Alkali- and alkaline-earth metal–organic networks based on a tetra(4-carboxyphenyl)bimesitylene-linker; L.G. Bahrin, D. Bejan, **S. Shova,** M. Gdaniec, M. Fronc, V. Lozan, C. Janiak; Polyhedron 173, 114128 (2019) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.039
131.	Synthesis, structure, computational modeling, and biological activity of two novel bimesitylene derivatives, L.G. Bahrin, L. Clima, **S. Shova**, I. Rosca, C. Cojocaru, D. Bejan, M.C. Sardaru, N. Marangoci, V. Lozan, A. Rotaru; Res. Chem. Intermediat. 45(2), 453-469 (2019) (FI_{2023} = 3.3) (Q_{FI} = Q2)	Q3	0.294	0.029

Dr. Dascalu Mihaela, CSIII, team member

Total number of publications (according to the Web of Science): 73

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Publications in the 2019-2023 period, 36 articles (8Q1, 17Q2, 6Q3, 3Q4), A= 3.262314

No.	Publications	Q_{AIS}	AIS	A
1.	Amino-functionalized silicones processed as porous dual covalent/supramolecular networks for pressure sensing; **B.-I. Ciubotaru, M.-F. Zaltariov, M. Dascalu, A. Bele, A. Bargan, M. Cazacu**; Reactive and Functional Polymers 194, 105792 (2024) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.089
2.	Ferronematic Co(II) complex: an active filler for magnetically actuated soft materials; **M. Damoc**, V. Tiron, **C. Tugui**, C.D. Varganici, **A.-C. Stoica**, G. Novitchi, **M. Dascalu, M. Cazacu**; Small 2307006 (2023) (FI_{2023} = 13.3) (Q_{FI} = Q1)	Q1	2.545	0.318
3.	The impact of the addition of vitamins on a silicone lining material to the oral mucosa tissue-evaluation of the biocompatibility, hydrolytic stability and histopathological effect; I. Gradinaru, **B.I. Ciubotaru**, M. Butnaru, F.D. Cojocaru, C.T. Covasa, T. Bibire, **M. Dascalu, A. Bargan, M. Cazacu, M.F. Zaltariov**; Medicina 59, 1936 (2023) (FI_{2023} = 2.6) (Q_{FI} =Q2)	Q3	0.531	0.053
4.	A Manganese (II) 3D Metal–Organic Framework with siloxane-spaced dicarboxylic ligand: synthesis, structure, and properties; **A.C. Stoica, M. Damoc, S. Shova**, G. Novitchi, **M. Dascalu, M. Cazacu**; Inorganics 11(1) 21 (2023) (FI_{2023} = 2.9) (Q_{FI} = Q2)	Q2	0.426	0.071
5.	Micellization turned on dual fluorescence and room temperature phosphorescence by pseudo-ESIPT in thiadiazole derivatives; **M. Damoc**, R.I. Tigoianu, **A.C. Stoica**, A.M. Macsim, **M. Dascalu, S. Shova, M. Cazacu**; Journal of Physical Chemistry C 127 (1), 99-109 (2023) (FI_{2023} = 3.7) (Q_{FI} = Q2)	Q2	0.827	0.118
6.	Fully carboxy-functionalized polyhedral silsesquioxanes as polar fillers to enhance the performance of dielectric silicone elastomers; **M. Dascalu, A.-C. Stoica, A. Bele**, L. Yu, D. Ionita, A.-L. Vasiliu, A.L. Skov, **C. Racles, M. Cazacu**; Polymer 289, 126492 (2023) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601	0.067
7.	From passive to emerging smart silicones; **M. Cazacu, M. Dascalu, G.T. Stiubianu, A. Bele, C. Tugui, C. Racles**; Reviews in Chemical Engineering 39 (6), 941-1003 (2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q1	1.014	0.169
8.	Bentonite as an active natural filler for silicone leading to piezoelectric-like response material; **M. Iacob**, V. Tiron, **G.T. Stiubianu, M. Dascalu,** L. Hernandez, C.D. Varganici, **C. Tugui, M. Cazacu**; Journal of Materials Research and Technology 17, 79-94 (2022) (FI_{2023} = 6.4) (Q_{FI} = Q1)	Q1	0.812	0.102
9.	Catalyst-free crosslinked sustainable functional silicones by supramolecular interactions; **B.I. Ciubotaru, M. Dascalu, M.F. Zaltariov**, A.M. Macsim, **M. Damoc, A. Bele, C. Tugui**, C.D. Varganici, **M. Cazacu**; Reactive and Functional Polymers 181,	Q2	0.534	0.059

	105419/1-19 (2022) (FI_{2023} = 5.1) (Q_{FI} = Q1)			
10.	Soft silicone elastomers exhibiting large actuation strains; **A. Bele, M. Dascalu, C. Tugui, G.T. Stiubianu**, C.D. Varganici, **C. Racles, M. Cazacu**, A. Ladergaard Skov; Journal of Applied Polymer Science 139(22), 52261/1-11 (2022) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.046
11.	Binary silicone elastomeric systems with stepwise crosslinking as a tool for tuning electromechanical behavior; **A. Bele**, L. Yu, **M. Dascalu**, D. Timpu, L. Sacarescu, C.D. Varganici, D. Ionita, D. Isac, A.L. Vasiliu; Polymers 14, 211/1- 13 (2022) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.067
12.	Octakis(carboxyalkylthioethyl)silsesquioxanes and derived metal complexes: Synthesis, characterization and catalytic activity assessments; **M. Dascalu, A.C. Stoica, A. Bele**, A.M. Macsim, **A, Bargan,** C.D. Varganici, **G.T. Stiubianu, C.Racles, S. Shova, M. Cazacu**; Journal of Inorganic and Organometallic Polymers and Materials 32, 3955-3970 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355	0.036
13.	Fourteen-member silacycle built by cascade reactions induced by a platinum catalyst; **M. Damoc, A.C. Stoica**, D.A. Blaj, A.M. Macsim, **M. Dascalu**, C. Cojocaru, **S. Shova, M. Cazacu**; Journal of Molecular Structure 1269, 133760/1-8 (2022) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331	0.041
14.	Some theoretical and experimental evidence for particularities of the siloxane bond; **A.C. Stoica, M. Damoc**, C. Cojocaru, A. Nicolescu, **S. Shova, M. Dascalu, M. Cazacu**; Molecules 27(23), 8563 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.094
15.	All-polymer piezo-composites for scalable energy harvesting and sensing devices; **G.T. Stiubianu, A. Bele, A. Bargan**, V.O. Potolinca, M. Asăndulesa, **C. Tugui**, V. Tiron, C. Hamciuc, **M. Dascalu, M. Cazacu**; Molecules *27*(23), 8524 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.066
16.	Dual crystalline-amorphous salen-metal complexes behave like nematic droplets with AIEgens vistas; **M. Dămoc, A.C. Stoica, M. Dascălu**, M. Asăndulesa, **S. Shova, M. Cazacu**; Dalton Transactions 50, 13841-13858 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.096
17.	From amorphous silicones to Si-containing highly ordered polymers: Some Romanian contributions in the field; **M. Cazacu, C. Racleș, M. F. Zaltariov, M. Dascălu, A. Bele, C. Țugui, A. Bargan, G. Știubianu**; Polymers 13(10), 1605 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076
18.	Silicone elastomers with improved electromechanical performance using slidering polymers; **A. Bele, M. Dascalu, C. Tugui**, A. Farcas; Journal of Polymer Research 29, 202/1-9 (2022) (FI_{2023} = 2.8) (Q_{FI} = Q3)	Q3	0.317	0.079
19.	New heterogeneous catalysts containing platinum group metals recovered from a spent catalytic converter; **C. Racleș, M.-F. Zaltariov**, A. Coroabă, M. Silion, C. Diac, A. **Dascălu, M. Iacob**,	Q2	0.391	0.049

	M. Cazacu; Applied Organometallic Chemistry 35, e6417 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)			
20.	Octakis(phenyl)-T_8-silsesquioxane-filled silicone elastomers with enhanced electromechanical capability; **M. Dascălu, M. Iacob, C. Țugui, A. Bele, G.-T. Știubianu, C. Racleș, M. Cazacu**; Journal of Applied Polymer Science 138 (14), 50161 (2021) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052
21.	Silanol-functionalized tetranuclear copper complex and its nanoscale-heterogenization by immobilization on glass surface from solution; **A.C. Stoica, M. Dămoc**, V. Tiron, **M. Dascălu**, A. Coroabă, **S. Shova, M. Cazacu**, Journal of Molecular Liquids 344, 117742 (2021) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.095
22.	Multi-stimuli responsive free-standing films of DR1- grafted silicones; **C. Racles**, C. Ursu, **M. Dascalu**, M. Asandulesa, V. Tiron, **A. Bele, C. Tugui**, S. Teodoroff-Onesim; Chemical Engineering Journal 401, 126087 (2020) (FI_{2023} = 15.1) (Q_{FI} = Q1)	Q1	2.029	0.254
23.	Keto-enol tautomerism in new silatranes Schiff bases tailed with different substituted salicylic aldehyde; **A. Bargan, M.F. Zaltariov, A. Vlad, A.M.C. Dumitriu, A. Soroceanu**, A.M. Maxim, **M. Dascalu**, C.D. Varganici, **M. Cazacu, S. Shova;** Arabian Journal of Chemistry 13, 3100-3111 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.679	0.068
24.	Nanoscale coordination polymer of dimanganese(II) as infinite, flexible nanosheets with photoswitchable morphology; S. **Shova, A. Vlad, M. Damoc**, V. Tiron, **M. Dascalu**, G. Novitchi, C. Ursu, **M. Cazacu**; European Journal of Inorganic Chemistry, (21), 2043-2054 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q2)	Q2	0.393	0.049
25.	Synthesis, structural characterization and properties evaluation of two new zwitterionic siloxane compounds; **A. Bargan, M. Cazacu, M. Dascalu**, A.-M. Macsim, **A. Soroceanu**, I.F. Macsim; Polyhedron 179, (2020) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.046
26.	Silicone elastomers filled with rare earth oxides; **M. Iacob**, A.Airinei, M. Asandulesa, **M. Dascalu**, N. Tudorachi, L. Hernandez, **M. Cazacu**; Materials Research Express 7(3), 035703 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q3)	Q4	0.260	0.037
27.	Syntheses and crystal structures of the one-dimensional coordination polymers formed by $[Ni(cyclam)]^{2+}$ cations and 1,3-bis(3-carboxypropyl)tetramethyldisiloxane anions in different degrees of deprotonation; S.P. Gavrish, **S. Shova, M. Cazacu, M. Dascalu**, Y.D. Lampeka; Acta Crystallographica Section E: Crystallographic Communications 76(Part 3), 446-451(2020) (FI_{2023} = -) (Q_{FI} = -)	-	0.070	0.014
28.	Salen-type Schiff bases spaced by the highly flexible and hydrophobic tetramethyldisiloxane motif. Some synthetic, structural and behavioral particularities **M. Damoc, A.C. Stoica**, A. M. Macsim, **M. Dascalu, M. F. Zaltariov, M. Cazacu** Journal of Molecular Liquids, 316, Article 113852/1-11 (2020) (FI_{2023} =	Q2	0.668	0.111

	6.0) (Q_{FI} = Q2)			
29.	From ultra-high molecular weight polydimethylsiloxane to super-soft Elastomer; **C. Tugui**, V. Tiron, **M. Dascalu**, L. Sacarescu, **M. Cazacu**; European Polymer Journal 120, 109242 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q1)	Q1	0.671	0.134
30.	Nanomaterials developed by processing iron coordination compounds for biomedical application; **M. Iacob, C. Racles, M. Dascalu, C Tugui,** V. Lozan, **M. Cazacu**; Journal of Nanomaterials Article ID 2592974 (2019). (FI_{2023} = 3.791) (Q_{FI} = Q3)	Q3	0.439	0.073
31.	Detection of nitroaromatics by a Zn(II)-containing coordination polymer derived from a 1,2,3-triazole-based tricarboxylate ligand; **M. Dascălu**, A.L. Chibac-Scutaru, G. Roman; Journal of Molecular Liquids 386, 122457 (2023) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.223
32.	Preliminary study concerning the adaptation of a periodontal dressing material to the inclusion of therapeutic agents; I. Grădinaru, **B.-I. Ciubotaru, M. Dascălu**; Archives of Metallurgy and Materials, *accepted for publication* (FI_{2023} = 0.6) (Q_{FI} = Q4)	Q4	0.104	0.035
33.	Crystal structures of 5-bromo-1-arylpyrazoles and their halogen bonding features; M.M. Popa, **S. Shova, M. Dascalu**, M.R. Caira, F. Dumitrascu; CrystEngComm 25, 86-94 (2023) (FI_{2023} = 3.1) (Q_{FI} = Q3)	Q2	0.464	0.093
34.	Evaluation of the behaviour of dental composites related to different types of drincks by the dynamic vapor sorption method; I. Gradinaru, A.L. Vasiliu, **A. Bargan, B.I. Ciubotaru**, A.O. Armencia, L.L. Hurjui, L.E. Checherita, C.G. **Dascalu, M**.E. Antohe, Romanian Journal of Oral Rehabilitation 15(2) (2023) (FI_{2023} = 0.7) (Q_{FI} = Q4)	-	0.027	0.003
35.	Synthesis, structural characterization, photophysical study and investigation as fluorescent sensor towards metal ions of 1,2,3-triazole-azaindene hybrids; L. Sacarescu, **M. Dascalu**, A.L. Chibac-Scutaru, G. Roman; Journal of Photochemistry and Photobiology A: Chemistry 433, 114160/1-13 (2022) (FI_{2023} = 4.3) (Q_{FI} = Q2)	Q3	0.473	0.118
36.	Conductive silicone elastomers electrodes processable by screen printing; J.E.Q. Quinsaat, I. Burda, R. Krämer, D. Häfliger, F.A. Nüesch, **M. Dascalu**, D.M. Opris; Scientific Reports 9, Article Number 13331 (2019) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	1.132	0.162

Dr. Zaltariov Mirela-Fernanda, CSIII, team member

Total number of publications (according to the Web of Science): 90

https://icmpp.ro/newsmartsil/files/Publications_Zaltariov_M.pdf

Publications in the 2019-2023 period, 45 articles (14Q1, 20Q2, 8Q3, 3Q4), A= 4.137058

No.	Publications	Q_{AIS}	AIS	A
1.	Amino-functionalized silicones processed as porous dual covalent/supramolecular networks for pressure sensing; **B.-I.**	Q2	0.534	0.089

	Ciubotaru, M.-F. Zaltariov, M. Dascalu, A. Bele, A. Bargan, M. Cazacu; Reactive and Functional Polymers 194, 105792 (2024) (FI_{2023} = 5.1) (Q_{FI} = Q1)			
2.	The impact of the addition of vitamins on a silicone lining material to the oral mucosa tissue-evaluation of the biocompatibility, hydrolytic stability and histopathological effect; I. Gradinaru, **B.I. Ciubotaru**, M. Butnaru, F.D. Cojocaru, C.T. Covasa, T. Bibire, **M. Dascalu, A. Bargan, M. Cazacu, M.F. Zaltariov**; Medicina 59, 1936 (2023) (FI_{2023} = 2.6) (Q_{FI} =Q2)	Q3	0.531	0.053
3.	Mucoadhesive mesoporous silica particles as versatile carriers for doxorubicin delivery in cancer therapy; **M.F. Zaltariov, B.I. Ciubotaru**, A. Ghilan, D. Peptanariu, M. Ignat, M. Iacob, N. Vornicu, **M. Cazacu**; International Journal of Molecular Sciences 24, 14687 (2023) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.028	0.129
4.	Catalyst-free crosslinked sustainable functional silicones by supramolecular interactions; **B.I. Ciubotaru, M. Dascalu, M.F. Zaltariov**, A.M. Macsim, **M. Damoc, A. Bele, C. Tugui**, C.D. Varganici, **M. Cazacu**; Reactive and Functional Polymers 181, 105419/1-19 (2022) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.059
5.	Silicones with different crosslinking patterns: Assessment from the perspective of their suitability for biomaterials; **B.I. Ciubotaru, M.F. Zaltariov, C. Tugui**, I.E. Stoleru, D. Peptanariu, **G.T. Stiubianu**, N. Vornicu, **M. Cazacu**; Surfaces and Interfaces 32, 102168 (2022) (FI_{2023} = 6.2) (Q_{FI} = Q2)	Q1	0.696	0.087
6.	Scalable silicone composites for thermal management in flexible stretchable electronics; **G.T. Stiubianu, A. Bele**, M. Grigoras, **C. Tugui, B.I. Ciubotaru, M.F. Zaltariov**, F. Borza, L.G. Bujoreanu, **M. Cazacu**; Batteries 8 (8), 95 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q2	0.861	0.096
7.	Chemical attachment of 5-nitrosalicylaldimine motif to silatrane resulting in an organic–inorganic structure with high medicinal significance, **M.-F. Zaltariov**, M. Turtoi, D. Peptanariu, A.-M. Macsim, L. Clima, C. Cojocaru, N. Vornicu, B.-I. Ciubotaru, **A. Bargan**, M. Calin, **M. Cazacu;** Pharmaceutics 2022, 14, 2838. (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q1	0.756	0.069
8.	Functionalized mesoporous silica as doxorubicin carriers and cytotoxicity boosters; **C. Racles, M.F. Zaltariov**, D. Peptanariu, T. Vasiliu, **M. Cazacu**; Nanomaterials 12(11), 1823 (2022) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712	0.142
9.	From amorphous silicones to Si-containing highly ordered polymers: Some Romanian contributions in the field; **M. Cazacu, C. Racleș, M. F. Zaltariov, M. Dascălu, A. Bele, C. Țugui, A. Bargan, G. Știubianu**; Polymers 13(10), 1605 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076
10.	Synthesis, characterization, and some metal complexes of bis(isocyanide)disiloxane, showing catalytic activity; **C. Racles, M.F. Zaltariov**, M. Silion, M. Avadanei, A.M. Macsim, A.	Q2	0.391	0.06517

	Nicolescu; Applied Organometallic Chemistry 36(3), e6543 (2022) (FI_{2023} = 3.9) (Q_{FI} = Q2)			
11.	Two-dimensional coordination polymers containing permethylated motifs - promising candidates for 2D emerging materials. Structural, behavioral and functional particularities; **A.C. Stoica, M. Dămoc, M.F. Zaltariov, C. Racleș, M. Cazacu**; Reactive and Functional Polymers 168, 105039 (2021) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.107
12.	New heterogeneous catalysts containing platinum group metals recovered from a spent catalytic converter; **C. Racleș, M.-F. Zaltariov**, A. Coroabă, M. Silion, C. Diac, A. Dascălu, **M. Iacob, M. Cazacu;** Applied Organometallic Chemistry 35, e6417 (2021) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.049
13.	Slow magnetic relaxation in $\{[CoCxAPy)]2.15H_2O\}_n$ MOF built from ladder-structured 2D layers with dimeric SMM rungs; A. Arauzo, E. Bartolome, J. Luzon, P. Alonso, **A. Vlad, M. Cazacu, M.F. Zaltariov, S. Shova**, J. Bartolome, C. Turta; Molecules 26(18), 5626 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q3	0.660	0.066
14.	Three reactions, one catalyst: A multi - purpose platinum(iv) complex and its silica - supported homologue for environmentally friendly processes; **C. Racles, M.F. Zaltariov, M. Damoc, A.M. Macsim, M. Iacob**, L. Sacarescu; Applied Organometallic Chemistry 34(3) e5422 (15pp) (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.06517
15.	Permethylated dinuclear Mn(III) coordination nanostructure with stripe-ordered magnetic domains; **S. Shova**, V. Tiron, **A. Vlad**, G. Novitchi, D.G. Dumitrescu, **M. Damoc, M.-F. Zaltariov, M. Cazacu;** Applied Organometallic Chemistry e5957 (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.049
16.	Keto-enol tautomerism in new silatranes Schiff bases tailed with different substituted salicylic aldehyde; **A. Bargan, M.F. Zaltariov, A. Vlad, A.M.C. Dumitriu, A. Soroceanu**, A.M. Maxim, **M. Dascalu**, C.D. Varganici, **M. Cazacu, S. Shova**; Arabian Journal of Chemistry 13, 3100-3111 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.679	0.068
17.	Coordination compounds with siloxane/silane-containing ligands capable of self-assembly at nano/ micro scale in solid state and in solution, **M.F. Zaltariov, M. Cazacu**, Advances in Inorganic Chemistry, 76, 155-196, 2020. (FI_{2023} = 2.93) (Q_{FI} = Q2)	Q2	0.524	0.262
18.	Salen-type Schiff bases spaced by the highly flexible and hydrophobic tetramethyldisiloxane motif. Some synthetic, structural and behavioral particularities **M. Damoc, A.C. Stoica**, A. M. Macsim, **M. Dascalu, M. F. Zaltariov, M. Cazacu** Journal of Molecular Liquids, 316, Article 113852/1-11 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.111
19.	Photo-oxidative degradation of doxorubicin with siloxane MOFs	Q3	0.651	0.1302

	by exposure to daylight; **C. Racles, M.F. Zaltariov**, M. Silion, A.M. Macsim, V. Cozan; Environmental Science and Pollution Research 26(19), 19684–19696 (2019) (FI_{2023} = 5.8) (Q_{FI} = Q1)			
20.	Silver thin films generated by Pulsed Laser Deposition on plasma-treated surface of silicones to get dielectric elastomer transducers; **C Tugui**, C. Ursu, **M.F. Zaltariov**, M. Aflori, M. Mičušík, M. Omastová, **M. Cazacu**; Surface & Coatings Technology 358, 282-292 (2019) (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q1	0.644	0.092
21.	Copper(II) complexes with spherical morphology generated in one step by amphiphilic ligands: in situ view of the self-assembling, characterization, catalytic activity; **G.-O. Turcan-Trofin, M.-F. Zaltariov, M. Iacob**, V. Tiron, F. Branza, **C. Racles, M. Cazacu**; Colloids and Surfaces A: Physicochemical and Engineering Aspects, 580, 123756 (2019) (FI_{2023} = 5.2) (Q_{FI} = Q2)	Q3	0.6	0.086
22.	Amphiphilic silicone-bridged bis-triazoles as effective, selective metal ligands and biologically active agents in lipophilic environment; **G.O. Turcan-Trofin, M.-F. Zaltariov**, G. Roman, **S. Shova,** N. Vornicu, M. Balan-Porcarasu, D. L. Isac, A. Neamtu, **M. Cazacu**; J. Mol.Liq. 294, 111560 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.074
23.	Synthesis, structural characterization and biological studies of new Schiff bases containing trimethylsilyl groups; **M.F. Zaltariov**, M. Avadanei, M. Balan, D. Peptanariu, N. Vornicu, **S. Shova**; J. Mol. Struct. 1175, 624-631 (2019) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331	0.05517
24.	Siloxane-based compounds with tailored surface properties for health and environment; **C. Racles, M. Cazacu, M.F. Zaltariov, M. Iacob,** M. Butnaru M; Phosphorus, Sulfur, and Silicon and the Related Elements 194(10), 972-977 (2019) (FI_{2023} = 1.3) (Q_{FI} = Q4)	Q4	0.143	0.029
25.	Nickel complexes of guanidine functionalized trisiloxane; L. Pricop, M.E. Fortuna, D. Popovici, M. Asandulesa, **C. Racles, M.F. Zaltariov**, N. Marangoci, M. Savin, V. Harabagiu; J. Inorg. Organomet. Polym. https://doi.org/10.1007/s10904-019-01161-9 (2019) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355	0.03944
26.	Hybrid green bionanocomposites based on chitosan/starch/gelatin and metallic nanoparticles for biological applications; D. Filip, D. Macocinschi, S.L. Nica, M. Asandulesa, B. Condurache, E. Stoleru, D.M. Rata, **A. Bargan**, **M.F. Zaltariov**; International Journal of Biological Macromolecules, 253 (8), 127571 (2023) (FI_{2023} = 8.2) (Q_{FI} =Q1)	Q1	0.918	0.102
27.	Mucoadhesive and antimicrobial allantoin/β cyclodextrins-loaded carbopol gels as scaffolds for regenerative medicine; D. Filip, D. Macocinschi, **M.F. Zaltariov**, C.A. Gafitanu, C.G. Tuchilus, **A. Bele, B.I. Ciubotaru**, A. Stoleru, **A. Bargan**; Gels 8(7), 416 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626	0.06956

28.	Hydroxypropyl cellulose/pluronic-based composite hydrogels as biodegradable mucoadhesive scaffolds for tissue engineering; D. Filip, D. Macocinschi, **M.-F. Zaltariov**, **B.-I. Ciubotaru**, **A. Bargan**, C.-D. Varganici, A.-L. Vasiliu, D. Peptanariu, M. Balan-Porcarasu, M.-M. Timofte-Zorila; Gels 8(8), 519 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626	0.0626
29.	Biocompatible self-assembled hydrogen-bonded gels based on natural deep eutectic solvents and hydroxypropyl cellulose with strong antimicrobial activity; D. Filip, D. Macocinschi, M. Balan-Porcarasu, C.-D. Varganici, R.P. Dumitriu, D. Peptanariu, C.G. Tuchilus, **M.-F. Zaltariov**; Gels, 8(10), 666 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626	0.07825
30.	MWCNTs composites-based on new chemically modified polysulfone matrix for biomedical applications; S.L. Nica, **M.F. Zaltariov**, D. Pamfil, **A. Bargan**, D. Rusu, D.M. Rata, C. Gaina, L.I. Atanase; Nanomaterials 12 (9), 1502 (2022) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712	0.089
31.	FTIR investigation on crystallinity of hydroxypropyl methyl cellulose - based polymeric blends; **M.F. Zaltariov**; Cellulose Chemistry and Technology 55 (9-10), 981-988 (2021) (FI_{2023} = 1.3) (Q_{FI} = Q3)	Q3	0.132	0.132
32.	Self-assembly and rheological behavior of chloramphenicol-based poly (ester ether) urethanes, **M.F. Zaltariov**, D. Filip, D. Macocinschi, C. Ibănescu, M. Danu, L. Săcărescu; Journal of Polymer Research 28(5), 1-15 (2021) (FI_{2023} = 2.8) (Q_{FI} = Q3)	Q3	0.317	0.05283
33.	Blends of sodium deoxycholate-based poly(ester ether)urethane ionomer and hydroxypropylcellulose with mucosal adhesiveness; D. Macocinschi, D. Filip, **B.-I. Ciubotaru**, R.P. Dumitriu, C.-D. Varganici, **M.-F. Zaltariov**; International Journal of Biological Macromolecules 162, 1262-1275 (2020) (FI_{2023} = 8.2) (Q_{FI} = Q1)	Q1	0.920	0.15333
34.	New approaches for the development of cellulose acetate/tetraethyl orthosilicate composite membranes: Rheological and microstructural analysis; A.M. Dobos, A. Filimon, **A. Bargan, M.F. Zaltariov**; Journal of Molecular Liquids 113129 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.167
35.	X-ray structure elucidation of a Pt-metalloporphyrin and its application for obtaining sensitive AuNPs-plasmonic hybrids capable of detecting triiodide anions; E. Fagadar-Cosma, A. Lascu, **S. Shova, M.F. Zaltariov**, M. Birdeanu, L. Croitor, A. Balan, D. Anghel, S. Stamatin; Int. J. Mol. Sci. 20, 710 (2019) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.030	0.11444
36.	Micellar and rheological properties of some sodium deoxycholate-based poly(ester ether)urethane ionomer biomaterials in N,N-dimethylformamide solutions; D. Filip, D. Macocinschi, S. Vlad, C. Ibanescu, M. Danu, **M.F. Zaltariov**; J. Mol. Liq. 285, 451-458 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.11133
37.	Ultrasound assisted synthesis of heterostructured $TiO_2/ZnFe_2O_4$	Q1	0.590	0.098333

	and $TiO_2/ZnFe_{1.98}La_{0.02}O_4$ systems as tunable photocatalysts for efficient organic pollutants removal; C. Coromelci, M. Neamtu, M. Ignat, P. Samoila, **M.F. Zaltariov,** M. Palamaru; Ceramics International 48(4), 4829-4840 (2022) (FI_{2023} = 5.2) (Q_{FI} = Q1)			
38.	Cu(II)/guanidine functionalized disiloxane complex of supramolecular structures for visible light-driven photocatalysis of Congo Red; M.E. Fortuna, L. Pricop, **M.F. Zaltariov**, D. Popovici, M. Ignat, V. Harabagiu, B.C. Simionescu; Polymers, 14(4), 817 (2022) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.101
39.	Equilibrium, kinetic, and thermodynamic studies of new materials based on xanthan gum and cobalt ferrite for dye adsorption; I. Spiridon, I. Apostol, N.C. Anghel, **M.F. Zaltariov**; Applied Organometallic Chemistry 36(6), e6670 (2022) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.09775
40.	New cellulose-collagen-alginate materials incorporated with quercetin, anthocyanins and lipoic acid; N. Anghel, M.V. Dinu, **M.F. Zaltariov**, D. Pamfil, I. Spiridon; International Journal of Biological Macromolecules 181, 30-40 (2021) (FI_{2023} = 8.2) (Q_{FI} = Q1)	Q1	0.920	0.184
41.	Effect of TAT-DOX-PEG irradiated gold nanoparticles conjugates on human osteosarcoma cells; R.V. Lupusoru, D. A. Pricop, C. M. Uritu, A. Arvinte, A. Coroaba, I. Esanu, **M.F. Zaltariov**, M. Silion, C. Stefanescu, M. Pinteala; Scientific Reports 10, 6591, (2020) (FI_{2023} = 4.6) **(Q_{FI} = Q2)**	Q2	1.132	0.1132
42.	Hydrohypropyl cellulose/polyurethane blends. The behavior after accelerated ageing. A FTIR study; **M.-F. Zaltariov,** D. Filip, D. Macocinschi, I. Spiridon; Cellulose Chemistry and Technology 54 *(9-10),* 913-924, (2020) (FI_{2023} = 1.3) (Q_{FI} = Q3)	Q3	0.132	0.033
43.	Determination of the effective diffusion coefficient during the drying of paint and varnish films applied on fir wood; A. Mihaila, C. Lisa, A-M. Ipate, **M.F. Zaltariov**, D. Rusu, I. Mămăligă, G. Lisa; Prog. Org. Coat. 137, 105344 (2019) (FI_{2023} = 6.6) (Q_{FI} = Q1)	Q1	0.698	0.099714
44.	Effects of sewage sludge amendments on the growth and physiology of sweet basil; M. Burducea, A. Lobiuc, M. Asandulesa, **M.F. Zaltariov**, I. Burducea, S.M. Popescu, V.D. Zheljazkov; Agronomy 9, 548 (2019) (FI_{2023} = 2.1) (Q_{FI} = Q2)	Q1	0.424	0.060571
45.	Crystal smectic E revisited for(E)-N-(biphenyl-4-ylmethylene)-4-butylaniline– mesomorphism, crystal structure and FTIR study; V. Cozan, M. Avadanei, **S. Shova, M.-F. Zaltariov**; Lyq. Cryst. 46, 492-501 (2019) (FI_{2023} = 2.676) (Q_{FI} = Q2)	Q4	0.276	0.069

Dr. Tugui Codrin, CS, team member
Total number of publications (according to the Web of Science): 39
https://icmpp.ro/newsmartsil/files/Publications_Tugui_C.pdf
Publications in the 2019-2023 period, 21 articles (13Q1, 6Q2, 2Q3), A= 3.12583

No.	Publications	Q_{AIS}	AIS	A
1.	Ferronematic Co(II) complex: an active filler for magnetically actuated soft materials; **M. Damoc**, V. Tiron, **C. Tugui**, C.D. Varganici, **A.-C. Stoica**, G. Novitchi, **M. Dascalu**, **M. Cazacu**; Small 2307006 (2023) (FI_{2023} = 13.3) (Q_{FI} = Q1)	Q1	2.545	0.318
2.	All-Silicone 3D printing technology: toward highly elastic dielectric elastomers and complex structures; **C. Tugui**, **M. Cazacu**, D.M. Manoli, A. Stefan, M. Duduta; ACS Applied Polymer Materials 5 (10), 7936-7946 (2023) (FI_{2023} = 5.0) (Q_{FI} = Q2)	Q1	0.818	0.164
3.	From passive to emerging smart silicones; **M. Cazacu, M. Dascalu, G.T. Stiubianu, A. Bele, C. Tugui, C. Racles**; Reviews in Chemical Engineering 39 (6), 941-1003 (2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q1	1.014	0.169
4.	Bentonite as an active natural filler for silicone leading to piezoelectric-like response material; **M. Iacob**, V. Tiron, **G.T. Stiubianu, M. Dascalu**, L. Hernandez, C.D. Varganici, **C. Tugui**, **M. Cazacu**; Journal of Materials Research and Technology 17, 79-94 (2022) (FI_{2023} = 6.4) (Q_{FI} = Q1)	Q1	0.812	0.102
5.	Catalyst-free crosslinked sustainable functional silicones by supramolecular interactions; **B.I. Ciubotaru, M. Dascalu, M.F. Zaltariov**, A.M. Macsim, **M. Damoc, A. Bele, C. Tugui**, C.D. Varganici, **M. Cazacu**; Reactive and Functional Polymers 181, 105419/1-19 (2022) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.059
6.	Silicones with different crosslinking patterns: Assessment from the perspective of their suitability for biomaterials; **B.I. Ciubotaru, M.F. Zaltariov, C. Tugui,** I.E. Stoleru, D. Peptanariu, **G.T. Stiubianu**, N. Vornicu, **M. Cazacu**; Surfaces and Interfaces 32, 102168 (2022) (FI_{2023} = 6.2) (Q_{FI} = Q2)	Q1	0.696	0.087
7.	Scalable silicone composites for thermal management in flexible stretchable electronics; **G.T. Stiubianu, A. Bele**, M. Grigoras, **C. Tugui, B.I. Ciubotaru, M.F. Zaltariov**, F. Borza, L.G. Bujoreanu, **M. Cazacu**; Batteries 8 (8), 95 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q2	0.861	0.096
8.	Soft silicone elastomers exhibiting large actuation strains; **A. Bele, M. Dascalu, C. Tugui, G.T. Stiubianu,** C.D. Varganici, **C. Racles**, **M. Cazacu**, A. Ladergaard Skov; Journal of Applied Polymer Science 139(22), 52261/1-11 (2022) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.046
9.	All-polymer piezo-composites for scalable energy harvesting and sensing devices; **G.T. Stiubianu, A. Bele, A. Bargan**, V.O. Potolinca, M. Asăndulesa, **C. Tugui**, V. Tiron, C. Hamciuc, **M. Dascalu**, **M. Cazacu**; Molecules *27*(23), 8524 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.066
10.	From amorphous silicones to Si-containing highly ordered polymers: Some Romanian contributions in the field; **M. Cazacu, C. Racleș, M. F. Zaltariov, M. Dascălu, A. Bele, C. Tugui, A.**	Q1	0.606	0.076

	Bargan, G. Știubianu; Polymers 13(10), 1605 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)			
11.	Silicone elastomers with improved electromechanical performance using slidering polymers; **A. Bele, M. Dascalu, C. Tugui**, A. Farcas; Journal of Polymer Research 29, 202/1-9 (2022) (FI_{2023} = 2.8) (Q_{FI} = Q3)	Q3	0.317	0.079
12.	Elastic composites with PDMS matrix and polysulfone-supported silver nanoparticles as filler; **C. Racleș**, M. Asăndulesa, V. Tiron, **C. Tugui**, N. Vornicu, **B.I. Ciubotaru**, M. Mičušík, M. Omastová, A.L. Vasiliu, C. Ciomaga; Polymer 217, 123480 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601	0.060
13.	Octakis(phenyl)-T_8-silsesquioxane-filled silicone elastomers with enhanced electromechanical capability; **M. Dascălu, M. Iacob, C. Tugui, A. Bele, G.-T. Știubianu, C. Racleș, M. Cazacu**; Journal of Applied Polymer Science 138 (14), 50161 (2021) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052
14.	Multi-stimuli responsive free-standing films of DR1- grafted silicones; **C. Racles**, C. Ursu, **M. Dascalu**, M. Asandulesa, V. Tiron, **A. Bele, C. Tugui**, S. Teodoroff-Onesim; Chemical Engineering Journal 401, 126087 (2020) (FI_{2023} = 15.1) (Q_{FI} = Q1)	Q1	2.029	0.254
15.	Silicone dielectric elastomers optimized by crosslinking pattern - a simple approach to high-performance actuators; **C. Tugui, G.T. Stiubianu**, M.S. Serbulea, **M. Cazacu**; Polymer Chemistry 11, 3271-3284 (2020) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.802	0.201
16.	Preparation and characterisation of stacked planar actuators; **C Tugui**, M.S. Serbulea; **M. Cazacu;** Chemical Engineering Journal 364, 217-225 (2019) (FI_{2023} = 15.1) (Q_{FI} = Q1)	Q1	2.029	0.676
17.	From ultra-high molecular weight polydimethylsiloxane to super-soft Elastomer; **C. Tugui**, V. Tiron, **M. Dascalu**, L. Sacarescu, **M. Cazacu**; European Polymer Journal 120, 109242 (2019) (FI_{2023} = 6.0) (Q_{FI} = Q1)	Q1	0.671	0.134
18.	Silver thin films generated by Pulsed Laser Deposition on plasma-treated surface of silicones to get dielectric elastomer transducers; **C Tugui**, C. Ursu, **M.F. Zaltariov,** M. Aflori, M. Mičušík, M. Omastová, **M. Cazacu**; Surface & Coatings Technology 358, 282-292 (2019) (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q1	0.644	0.092
19.	Nanomaterials developed by processing iron coordination compounds for biomedical application; **M. Iacob, C. Racles, M. Dascalu, C Tugui**, V. Lozan, **M. Cazacu**; Journal of Nanomaterials Article ID 2592974 (2019). (FI_{2023} = 3.791) (Q_{FI} = Q3)	Q3	0.439	0.073
20.	Cellulose derivative/barium titanate composites with high refractive index, conductivity and energy density; A.I. Barzic, M. Soroceanu, R. Rotaru, F. Doroftei, M. Asandulesa, **C. Tugui**, A.I. Dascalu, V. Harabagiu; Cellulose 29, 863-878 (2022) (FI_{2023} =5.7) (Q_{FI} = Q1)	Q1	0.730	0.091
21.	The synergistic effect of nitrile and jeffamine structural elements	Q1	1.153	0.231

	towards stretchable and high-k neat polyimide materials; I. Butnaru, A. Chiriac, **C. Tugui**, M. Asăndulesa, M.D. Dămăceanu; Materials Chemistry Frontiers 5(20), 7558-7579 (2021) (FI_{2023} = 7.0) (Q_{FI} = Q1)			

Dr. Bargan Alexandra, AC, team member

Total number of publications (according to the Web of Science): 74

https://icmpp.ro/newsmartsil/files/Publications_Bargan_A.pdf

Publications in the 2019-2023 period, 30 articles (7Q1, 13Q2), A= 2.5514

No.	Publications	Q_{AIS}	AIS	A
1.	Amino-functionalized silicones processed as porous dual covalent/supramolecular networks for pressure sensing; **B.-I. Ciubotaru, M.-F. Zaltariov, M. Dascalu, A. Bele, A. Bargan, M. Cazacu**; Reactive and Functional Polymers 194, 105792 (2024) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.089
2.	The impact of the addition of vitamins on a silicone lining material to the oral mucosa tissue-evaluation of the biocompatibility, hydrolytic stability and histopathological effect; I. Gradinaru, **B.I. Ciubotaru**, M. Butnaru, F.D. Cojocaru, C.T. Covasa, T. Bibire, M. **Dascalu, A. Bargan, M. Cazacu, M.F. Zaltariov**; Medicina 59, 1936 (2023) (FI_{2023} = 2.6) (Q_{FI} =Q2)	Q3	0.531	0.053
3.	Chemical attachment of 5-nitrosalicylaldimine motif to silatrane resulting in an organic–inorganic structure with high medicinal significance, **M.-F. Zaltariov**, M. Turtoi, D. Peptanariu, A.-M. Macsim, L. Clima, C. Cojocaru, N. Vornicu, **B.-I. Ciubotaru, A. Bargan**, M. Calin, **M. Cazacu;** Pharmaceutics 2022, 14, 2838. (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q1	0.756	0.069
4.	Octakis(carboxyalkylthioethyl)silsesquioxanes and derived metal complexes: Synthesis, characterization and catalytic activity assessments; **M. Dascalu, A.C. Stoica, A. Bele**, A.M. Macsim, **A, Bargan**, C.D. Varganici, **G.T. Stiubianu, C.Racles, S. Shova, M. Cazacu**; Journal of Inorganic and Organometallic Polymers and Materials 32, 3955-3970 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355	0.036
5.	All-polymer piezo-composites for scalable energy harvesting and sensing devices; **G.T. Stiubianu, A. Bele, A. Bargan**, V.O. Potolinca, M. Asăndulesa, **C. Tugui**, V. Tiron, C. Hamciuc, **M. Dascalu, M. Cazacu**; Molecules *27*(23), 8524 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.066
6.	From amorphous silicones to Si-containing highly ordered polymers: Some Romanian contributions in the field; **M. Cazacu, C. Racleș, M. F. Zaltariov, M. Dascălu, A. Bele, C. Țugui, A. Bargan, G. Știubianu**; Polymers 13(10), 1605 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076
7.	Advanced and biomedical applications of schiff-base ligands and their metal complexes: A review; **A. Soroceanu, A. Bargan;** Crystals 12(10), 1436 (2022) (FI_{2023} = 2.7) (Q_{FI} = Q2)	Q2	0.424	0.212

8.	Keto-enol tautomerism in new silatranes Schiff bases tailed with different substituted salicylic aldehyde; **A. Bargan, M.F. Zaltariov, A. Vlad, A.M.C. Dumitriu, A. Soroceanu**, A.M. Maxim, **M. Dascalu**, C.D. Varganici, **M. Cazacu, S. Shova**; Arabian Journal of Chemistry 13, 3100-3111 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.679	0.068
9.	Synthesis, structural characterization and properties evaluation of two new zwitterionic siloxane compounds; **A. Bargan, M. Cazacu, M. Dascalu**, A.-M. Macsim, **A. Soroceanu**, I.F. Macsim; Polyhedron 179, (2020) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.046
10.	Hydrophobic, amorphous metal-organic network readily prepared by complexing the aluminum ion with a siloxane spaced dicarboxylic acid in aqueous medium; **M. Cazacu, G.O. Turcan - Trofin, A. Vlad, A. Bele, S. Shova**, A. Nicolescu, **A. Bargan**; J. Appl. Polym. Sci. 136 (9), 47144 (2019) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052
11.	Hybrid green bionanocomposites based on chitosan/starch/gelatin and metallic nanoparticles for biological applications; D. Filip, D. Macocinschi, S.L. Nica, M. Asandulesa, B. Condurache, E. Stoleru, D.M. Rata, **A. Bargan, M.F. Zaltariov**; International Journal of Biological Macromolecules, 253 (8), 127571 (2023) (FI_{2023} = 8.2) (Q_{FI} =Q1)	Q1	0.918	0.102
12.	The influence of beverages on resin composites: an in vitro study; I. Gradinaru, A.L. Vasiliu, **A. Bargan**, L.E. Checherita, **B.I. Ciubotaru**, A.O. Armencia, B. Istrate, C.G. Dascalu, M.E. Antohe; Biomedicines 11(9), 2571(2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q2	0.804	0.08933
13.	Evaluation of the behaviour of dental composites related to different types of drincks by the dynamic vapor sorption method; I. Gradinaru, A.L. Vasiliu, **A. Bargan, B.I. Ciubotaru**, A.O. Armencia, L.L. Hurjui, L.E. Checherita, C.G. Dascalu, M.E. Antohe, Romanian Journal of Oral Rehabilitation 15(2) (2023) (FI_{2023} = 0.7) (Q_{FI} = Q4)	-	0.027	0.003
14.	Materials based on quaternized polysulfones with potential applications in biomedical field: structure-properties relationship; **A. Bargan**, M.D. Onofrei, I. Stoica, F. Doroftei, S. Dunca, A. Filimon; International Journal of Molecular Sciences 23(9), 4721 (2022) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.030	0.172
15.	Mucoadhesive and antimicrobial allantoin/β cyclodextrins-loaded carbopol gels as scaffolds for regenerative medicine; D. Filip, D. Macocinschi, **M.F. Zaltariov**, C.A. Gafitanu, C.G. Tuchilus, **A. Bele, B.I. Ciubotaru**, A. Stoleru, **A. Bargan**; Gels 8(7), 416 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626	0.070
16.	Hydroxypropyl cellulose/pluronic-based composite hydrogels as biodegradable mucoadhesive scaffolds for tissue engineering; D. Filip, D. Macocinschi, **M.-F. Zaltariov, B.-I. Ciubotaru, A. Bargan**, C.-D. Varganici, A.-L. Vasiliu, D. Peptanariu, M. Balan-Porcarasu, M.-M. Timofte-Zorila; Gels 8(8), 519 (2022) (FI_{2023} =	Q1	0.626	0.063

	4.6) (Q_{FI} = Q1)			
17.	MWCNTs composites-based on new chemically modified polysulfone matrix for biomedical applications; S.L. Nica, **M.F. Zaltariov**, D. Pamfil, **A. Bargan**, D. Rusu, D.M. Rata, C. Gaina, L.I. Atanase; Nanomaterials 12 (9), 1502 (2022) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712	0.089
18.	Comparative investigation of collagen-based hybrid 3D structures for potential biomedical applications; G. David, **A. Bargan**, M. Drobotă, **A. Bele**, I. Roșca; Materials 14(12), 3313 (2021) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511	0.102
19.	New approaches for the development of cellulose acetate/tetraethyl orthosilicate composite membranes: Rheological and microstructural analysis; A.M. Dobos, A. Filimon, **A. Bargan**, **M.F. Zaltariov**; Journal of Molecular Liquids 113129 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.167
20.	Evaluation of poly (vinyl alcohol)–xanthan gum hydrogels loaded with neomycin sulfate as systems for drug delivery; D. Serbezeanu, M.M. Iftime, G.L. Ailiesei, A.M. Ipate, **A. Bargan**, T. Vlad-Bubulac, C.M. Rîmbu; Gels 9(8), 655(2023) (FI_{2023} = 4.6) **(Q_{FI} = Q1)**	Q1	0.626	0.089
21.	Bioactive materials based on hydroxypropyl methylcellulose and silver nanoparticles: structural-morphological characterization and antimicrobial testing; A. Filimon, M.D. Onofrei, **A. Bargan**, I. Stoica, S. Dunca; Polymers 15(7), 1625 (2023)(FI_{2023} = 5.0) **(Q_{FI} = Q1)**	Q1	0.606	0.121
22.	Cellulose acetate/silica composites: Physicochemical and biological characterization; A.M. Dobos, **A. Bargan**, S. Dunca, C.M. Rîmbu, A. Filimon; Journal of the Mechanical Behavior of Biomedical Materials; 144, 106002 (2023) (FI_{2023} = 3.9) **(Q_{FI} = Q2)**	Q2	0.692	0.1384
23.	Synthesis of crosslinked microparticles based on glycidyl methacrylate and N - vinylimidazole; M.A. Trofin, S. Racovita, S. Vasiliu, **A. Bargan**, F. Bucatariu, A.L. Vasiliu, M. Mihai; Macromolecular Chemistry and Physics 2300253, (2023) (FI_{2023} = 2.5) (Q_{FI} = Q3)	Q2	0.394	0.056
24.	Application of surface-modified nanoclay in a hybrid adsorption-ultrafiltration process for enhanced nitrite ions removal: chemometric approach vs. machine learning; C. Cojocaru, P. Pascariu, A.C. Enache, **A. Bargan**, P. Samoila; Nanomaterials 13(4), 697 (2023) (FI_{2023} = 5.3) (Q_{FI} = Q2)	Q2	0.712	0.142
25.	Synthesis, properties and adsorption kinetic study of new cross-linked composite materials based on polyethylene glycol polyrotaxane and polyisoprene/semi-rotaxane, A.M. Resmerita, **A. Bargan**, C. Cojocaru, A. Farcas; Materials 16(16), 5594 (2023) (FI_{2023} =3.4) (Q_{FI} = Q3)	Q3	0.511	0.128
26.	Composite materials based on gelatin and iron oxide nanoparticles for MRI accuracy; M. Drobota, S. Vlad, L.M. Gradinaru, **A.**	Q3	0.511	0.057

	Bargan, I. Radu, M. Butnaru, C.M. Rimbu, R.C. Ciobanu, M. Aflori; Materials 15(10), 3479 (2022) (FI_{2023} = 3.4) (Q_{FI} = Q3)			
27.	Mechanical properties and equilibrium swelling characteristics of some polymer composites based on ethylene propylene diene terpolymer (EPDM) reinforced with hemp fibers; M.D. Stelescu, A. Airinei, **A. Bargan**, N. Fifere, M., Georgescu, M. Sonmez, M. Nituica, L. Alexandrescu, A. Stefan; Materials 15(19), 6838 (2022) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511	0.057
28.	Poly(vinylpyrrolidone)-chitosan hydrogels as matrices for controlled drug release; A.M. Ipate, D. Serbezeanu, **A. Bargan**, C. Hamciuc, L. Ochiuz, S. Gherman; Cellulose Chemistry and Technology 55 (1-2) 63-73 (2021) (FI_{2023} = 1.3) (Q_{FI} = Q3)	Q2	0.132	0.022
29.	Preparation and characterization of electrospun collagen based composites for biomedical applications; M. Drobota, L.M. Gradinaru, S. Vlad, **A. Bargan**, M. Butnaru, M. Angheloiu, M. Aflori; Materials 13, 3961 (2020) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511	0.073
30.	Chitosan-based bionanocomposite films prepared by emulsion technique for food preservation; E. Butnaru, E. Stoleru, M.A. Brebu, R.N. Darie-Nita, **A. Bargan**, C. Vasile; Materials 12, 373 (2019) (FI_{2023} = 2.2) (Q_{FI} = Q3)	Q3	0.264	0.044

Dr. Stiubianu George, AC, team member

Total number of publications (according to the Web of Science): 38

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Publications in the 2019-2023 period, 11 articles (5Q1, 4Q2, 2Q3), A= 1.1865

No.	Publications	Q_{AIS}	AIS	A
1.	From passive to emerging smart silicones; **M. Cazacu, M. Dascalu, G.T. Stiubianu, A. Bele, C. Tugui, C. Racles**; Reviews in Chemical Engineering 39 (6), 941-1003 (2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q1	1.014	0.169
2.	Bentonite as an active natural filler for silicone leading to piezoelectric-like response material; **M. Iacob**, V. Tiron, **G.T. Stiubianu, M. Dascalu**, L. Hernandez, C.D. Varganici, **C. Tugui, M. Cazacu**; Journal of Materials Research and Technology 17, 79-94 (2022) (FI_{2023} = 6.4) (Q_{FI} = Q1)	Q1	0.812	0.102
3.	Silicones with different crosslinking patterns: Assessment from the perspective of their suitability for biomaterials; **B.I. Ciubotaru, M.F. Zaltariov, C. Tugui**, I.E. Stoleru, D. Peptanariu, **G.T. Stiubianu**, N. Vornicu, **M. Cazacu**; Surfaces and Interfaces 32, 102168 (2022) (FI_{2023} = 6.2) (Q_{FI} = Q2)	Q1	0.696	0.087
4.	Scalable silicone composites for thermal management in flexible stretchable electronics; **G.T. Stiubianu, A. Bele**, M. Grigoras, **C. Tugui, B.I. Ciubotaru, M.F. Zaltariov**, F. Borza, L.G. Bujoreanu, **M. Cazacu**; Batteries 8 (8), 95 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q2	0.861	0.096
5.	Soft silicone elastomers exhibiting large actuation strains; **A. Bele,**	Q2	0.365	0.046

	M. Dascalu, C. Tugui, G.T. Stiubianu, C.D. Varganici, **C. Racles, M. Cazacu,** A. Ladergaard Skov; Journal of Applied Polymer Science 139(22), 52261/1-11 (2022) (FI_{2023} = 3.0) (Q_{FI} = Q2)			
6.	Octakis(carboxyalkylthioethyl)silsesquioxanes and derived metal complexes: Synthesis, characterization and catalytic activity assessments; **M. Dascalu, A.C. Stoica, A. Bele,** A.M. Macsim, **A, Bargan,** C.D. Varganici, **G.T. Stiubianu, C.Racles, S. Shova, M. Cazacu**; Journal of Inorganic and Organometallic Polymers and Materials 32, 3955-3970 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355	0.036
7.	All-polymer piezo-composites for scalable energy harvesting and sensing devices; **G.T. Stiubianu, A. Bele, A. Bargan,** V.O. Potolinca, M. Asăndulesa, **C. Tugui,** V. Tiron, C. Hamciuc, **M. Dascalu, M. Cazacu**; Molecules *27*(23), 8524 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.066
8.	From amorphous silicones to Si-containing highly ordered polymers: Some Romanian contributions in the field; **M. Cazacu, C. Racleș, M. F. Zaltariov, M. Dascălu, A. Bele, C. Țugui, A. Bargan, G. Stiubianu**; Polymers 13(10), 1605 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076
9.	Octakis(phenyl)-T_8-silsesquioxane-filled silicone elastomers with enhanced electromechanical capability; **M. Dascălu, M. Iacob, C. Țugui, A. Bele, G.-T. Stiubianu, C. Racleș, M. Cazacu**; Journal of Applied Polymer Science 138 (14), 50161 (2021) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052
10.	Siloxane matrix molecular weight influences the properties of nanocomposites based on metal complexes and dielectric elastomer; **A. Soroceanu, G. Stiubianu**; Materials 14, 3352 (2021) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511	0.256
11.	Silicone dielectric elastomers optimized by crosslinking pattern - a simple approach to high-performance actuators; **C. Tugui, G.T. Stiubianu, M.S. Serbulea, M. Cazacu**; Polymer Chemistry 11, 3271-3284 (2020) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.802	0.201

Dr. Soroceanu Alina, AC, team member

Total number of publications (according to the Web of Science): 16

https://icmpp.ro/newsmartsil/files/Publications_Soroceanu_A.pdf

Publications in the 2019-2023 period, 4 articles (2Q2, 2Q3), A= 0.5815

No.	Publications	Q_{AIS}	AIS	A
1.	Advanced and biomedical applications of schiff-base ligands and their metal complexes: A review; **A. Soroceanu, A. Bargan;** Crystals 12(10), 1436 (2022) (FI_{2023} = 2.7) (Q_{FI} = Q2)	Q2	0.424	0.212
2.	Siloxane matrix molecular weight influences the properties of nanocomposites based on metal complexes and dielectric elastomer; **A. Soroceanu, G. Ştiubianu**; Materials 14, 3352 (2021) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511	0.256

3.	Keto-enol tautomerism in new silatranes Schiff bases tailed with different substituted salicylic aldehyde; **A. Bargan, M.F. Zaltariov, A. Vlad, A.M.C. Dumitriu, A. Soroceanu**, A.M. Maxim, **M. Dascalu**, C.D. Varganici, **M. Cazacu**, S. Shova; Arabian Journal of Chemistry 13, 3100-3111 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.679	0.068
4.	Synthesis, structural characterization and properties evaluation of two new zwitterionic siloxane compounds; **A. Bargan, M. Cazacu, M. Dascalu**, A.-M. Macsim, **A. Soroceanu**, I.F. Macsim; Polyhedron 179, (2020) (FI_{2023} = 2.6) (Q_{FI} = Q2)	Q3	0.274	0.046

Dr. Bele Adrian, AC, team member

Total number of publications (according to the Web of Science): 64

https://icmpp.ro/newsmartsil/files/Publications_Bele_A.pdf

Publications in the 2019-2023 period, 29 articles (13Q1, 12Q2, 4Q3), A= 2.7554

No.	Publications	Q_{AIS}	AIS	A
1.	Amino-functionalized silicones processed as porous dual covalent/supramolecular networks for pressure sensing; **B.-I. Ciubotaru, M.-F. Zaltariov, M. Dascalu, A. Bele, A. Bargan, M. Cazacu**; Reactive and Functional Polymers 194, 105792 (2024) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.089
2.	Fully carboxy-functionalized polyhedral silsesquioxanes as polar fillers to enhance the performance of dielectric silicone elastomers; **M. Dascalu, A.-C. Stoica, A. Bele**, L. Yu, D. Ionita, A.-L. Vasiliu, A.L. Skov, **C. Racles, M. Cazacu**; Polymer 289, 126492 (2023) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601	0.067
3.	From passive to emerging smart silicones; **M. Cazacu, M. Dascalu, G.T. Stiubianu, A. Bele, C. Tugui, C. Racles**; Reviews in Chemical Engineering 39 (6), 941-1003 (2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q1	1.014	0.169
4.	Catalyst-free crosslinked sustainable functional silicones by supramolecular interactions; **B.I. Ciubotaru, M. Dascalu, M.F. Zaltariov**, A.M. Macsim, **M. Damoc, A. Bele, C. Tugui**, C.D. Varganici, **M. Cazacu**; Reactive and Functional Polymers 181, 105419/1-19 (2022) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.059
5.	Scalable silicone composites for thermal management in flexible stretchable electronics; **G.T. Stiubianu, A. Bele**, M. Grigoras, **C. Tugui, B.I. Ciubotaru, M.F. Zaltariov**, F. Borza, L.G. Bujoreanu, **M. Cazacu**; Batteries 8 (8), 95 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q2	0.861	0.096
6.	Emulsion gels as precursors for porous silicones and all-polymer composites-a proof of concept based on siloxane stabilizers; **C. Racles, A. Bele**, A.L. Vasiliu, L. Sacarescu; Gels 8(6), 377 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626	0.157
7.	Soft silicone elastomers exhibiting large actuation strains; **A. Bele, M. Dascalu, C. Tugui, G.T. Stiubianu**, C.D. Varganici, **C. Racles, M. Cazacu**, A. Ladergaard Skov; Journal of Applied	Q2	0.365	0.046

	Polymer Science 139(22), 52261/1-11 (2022) (FI_{2023} = 3.0) (Q_{FI} = Q2)			
8.	Binary silicone elastomeric systems with stepwise crosslinking as a tool for tuning electromechanical behavior; **A. Bele**, L. Yu, **M. Dascalu,** D. Timpu, L. Sacarescu, C.D. Varganici, D. Ionita, D. Isac, A.L. Vasiliu; Polymers 14, 211/1- 13 (2022) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.067
9.	Octakis(carboxyalkylthioethyl)silsesquioxanes and derived metal complexes: Synthesis, characterization and catalytic activity assessments; **M. Dascalu, A.C. Stoica, A. Bele,** A.M. Macsim, **A, Bargan**, C.D. Varganici, **G.T. Stiubianu, C.Racles, S. Shova, M. Cazacu**; Journal of Inorganic and Organometallic Polymers and Materials 32, 3955-3970 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355	0.036
10.	All-polymer piezo-composites for scalable energy harvesting and sensing devices; **G.T. Stiubianu, A. Bele, A. Bargan**, V.O. Potolinca, M. Asăndulesa, **C. Tugui**, V. Tiron, C. Hamciuc, **M. Dascalu, M. Cazacu**; Molecules *27*(23), 8524 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.066
11.	From amorphous silicones to Si-containing highly ordered polymers: Some Romanian contributions in the field; **M. Cazacu, C. Racleș, M. F. Zaltariov, M. Dascălu, A. Bele, C. Țugui, A. Bargan, G. Știubianu**; Polymers 13(10), 1605 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076
12.	Silicone elastomers with improved electromechanical performance using slidering polymers; **A. Bele, M. Dascalu, C. Tugui**, A. Farcas; Journal of Polymer Research 29, 202/1-9 (2022) (FI_{2023} = 2.8) (Q_{FI} = Q3)	Q3	0.317	0.0793
13.	Octakis(phenyl)-T_8-silsesquioxane-filled silicone elastomers with enhanced electromechanical capability; **M. Dascălu, M. Iacob, C. Țugui, A. Bele, G.-T. Știubianu, C. Racleș, M. Cazacu**; Journal of Applied Polymer Science 138 (14), 50161 (2021) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052
14.	Multi-stimuli responsive free-standing films of DR1- grafted silicones; **C. Racles**, C. Ursu, **M. Dascalu**, M. Asandulesa, V. Tiron, **A. Bele, C. Tugui**, S. Teodoroff-Onesim; Chemical Engineering Journal 401, 126087 (2020) (FI_{2023} = 15.1) (Q_{FI} = Q1)	Q1	2.029	0.254
15.	Hydrophobic, amorphous metal-organic network readily prepared by complexing the aluminum ion with a siloxane spaced dicarboxylic acid in aqueous medium; **M. Cazacu, G.O. Turcan - Trofin, A. Vlad, A. Bele, S. Shova**, A. Nicolescu, **A. Bargan**; J. Appl. Polym. Sci. 136 (9), 47144 (2019) (FI_{2023} = 3.0) (Q_{FI} = Q2)	Q2	0.365	0.052
16.	Mucoadhesive and antimicrobial allantoin/β cyclodextrins-loaded carbopol gels as scaffolds for regenerative medicine; D. Filip, D. Macocinschi, **M.F. Zaltariov**, C.A. Gafitanu, C.G. Tuchilus, **A. Bele, B.I. Ciubotaru**, A. Stoleru, **A. Bargan**; Gels 8(7), 416	Q1	0.626	0.070

	(2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)			
17.	Comparative investigation of collagen-based hybrid 3D structures for potential biomedical applications; G. David, **A. Bargan**, M. Drobotă, **A. Bele**, I. Roșca; Materials 14(12), 3313 (2021) (FI_{2023} = 3.4) (Q_{FI} = Q3)	Q3	0.511	0.102
18.	Development and Performance of Bioactive Compounds-Loaded Cellulose/Collagen/Polyurethane Materials; I. Spiridon, N. Anghel, M.V. Dinu, S. Vlad, **A. Bele, B.I. Ciubotaru**, L. Verestiuc, D. Pamfil; Polymers 12(5), 1191 (2020) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076
19.	Biomaterials based on chitosan and polyvinyl alcohol as a drug delivery system with wound-healing effects; S.P. Gherman, G. Biliuta, **A. Bele**, A.M. Ipate, R.I. Baron, L. Ochiuz, A.F. Spac, D.E. Zavastin; Gels 9(2), 122 (2023) (FI_{2023} = 4.6) **(Q_{FI} = Q1)**	Q1	0.626	0.078
20.	Xanthan or esterified xanthan/cobalt ferrite-lignin hybrid materials for methyl blue and basic fuchsine dyes removal: equilibrium, kinetic and thermodynamic studies; I. Apostol, N. Anghel, F. Doroftei, **A. Bele**, I. Spiridon; Materials Today Chemistry 27, 101299 (2023) (FI_{2023} = 7.3) **(Q_{FI} = Q1)**	Q1	1.045	0.209
21.	Enhancing natural polymers-based materials using montmorillonite: preparation, characterization, and environmental applications; I. Spiridon, **A. Bele**, I. Apostol, M.V. Dinu, N. Anghel; Journal of Polymers and the Environment https://doi.org/10.1007/s10924-023-03089-1 (2023) (FI_{2023} = 5.3) **(Q_{FI} =Q2)**	Q2	0.526	0.105
22.	Evaluation of physically and/or chemically modified chitosan hydrogels for proficient release of insoluble nystatin in simulated fluids; A.C. Enache, C. Cojocaru, P. Samoila, **A. Bele**, A.C. Bostanaru, M. Mares, V. Harabagiu; Gels 8(8), 495 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626	0.089
23.	Imination of microporous chitosan fibers-a route to biomaterials with "*on demand*" antimicrobial activity and biodegradation for wound dressings; A. Anisiei, I. Rosca, I., Sandu, **A. Bele**, X. Cheng, L. Marin; Pharmaceutics 14(1), 117 (2022) (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q2	0.756	0.126
24.	New composite membranes based on PVDF fibers loaded with TiO_2:Sm nanostructures and reinforced with graphene/graphene oxide for photocatalytic applications; P. Pascariu, C. Cojocaru, M. Homocianu, P. Samoila, I. Grecu, **A. Bele**; Surfaces and Interfaces 34, 102382 (2022) (FI_{2023} = 6.2) (Q_{FI} = Q2)	Q1	0.696	0.116
25.	Amphiphilic chitosan porous membranes as potential therapeutic systems with analgesic effect for burn care; A.C. Enache, P. Samoila, C. Cojocaru, **A. Bele**, A.C. Bostanaru, M. Mares, V. Harabagiu; Membranes 12(10), 973 (2022) (FI_{2023} = 4.2) (Q_{FI} = Q2)	Q2	0.530	0.076
26.	Dielectric, thermal and water absorption properties of some EPDM/Flax fiber composites; A. Airinei, M. Asăndulesa, M.D.	Q1	0.606	0.087

	Stelescu, N. Tudorache, N. Fifere, **A. Bele**, V. Musteață; Polymers 13(15), 2555 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)			
27.	Application of vegetal oils in developing bioactive paper-based materials for food packaging; A. Irimia, E. Stoleru, C. Vasile, **A. Bele**, M. Brebu; Coatings 11, 1211 (2021) (FI_{2023} = 3.4) (Q_{FI} = Q2)	Q2	0.439	0.088
28.	Novel electrospun membranes based on PVDF fibers embedding lanthanide doped ZnO for adsorption and photocatalytic degradation of dye organic pollutants; P. Pascariu Dorneanu, C. Cojocaru, P. Samoilă, N. Olaru, **A. Bele**, A. Airinei; Materials Research Bulletin 141, 111376 (2021) (FI_{2023} = 5.4) (Q_{FI} = Q2)	Q3	0.561	0.094
29.	Chitosan-sulfated titania composite membranes with potential applications in fuel cell: influence of cross-linker nature; A.-C. Humelnicu, P. Samoila, M. Asandulesa, C. Cojocaru, **A. Bele**, A.T. Marinoiu, A. Saccà, V. Harabagiu; Polymers 12(5) 1125 (2020) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076

Damoc Madalin, PhD student, team member

Total number of publications (according to the Web of Science): 15

https://icmpp.ro/newsmartsil/files/Publications_Damoc_M.pdf

Publications in the 2019-2023 period, 14 articles (1Q1, 12Q2, 1Q4), A= 1.4335

No.	Publications	Q_{AIS}	AIS	A
1.	Ferronematic Co(II) complex: an active filler for magnetically actuated soft materials; **M. Damoc**, V. Tiron, **C. Tugui**, C.D. Varganici, **A.-C. Stoica**, G. Novitchi, **M. Dascalu**, **M. Cazacu**; Small 2307006 (2023) (FI_{2023} = 13.3) (Q_{FI} = Q1)	Q1	2.545	0.318
2.	A Manganese (II) 3D Metal–Organic Framework with siloxane-spaced dicarboxylic ligand: synthesis, structure, and properties; **A.C. Stoica, M. Damoc, S. Shova**, G. Novitchi, **M. Dascalu, M. Cazacu**; Inorganics 11(1) 21 (2023) (FI_{2023} = 2.9) (Q_{FI} = Q2)	Q2	0.426	0.071
3.	Micellization turned on dual fluorescence and room temperature phosphorescence by pseudo-ESIPT in thiadiazole derivatives; **M. Damoc**, R.I. Tigoianu, **A.C. Stoica**, A.M. Macsim, M. **Dascalu, S. Shova, M. Cazacu**; Journal of Physical Chemistry C 127 (1), 99-109 (2023) (FI_{2023} = 3.7) (Q_{FI} = Q2)	Q2	0.827	0.118
4.	Catalyst-free crosslinked sustainable functional silicones by supramolecular interactions; **B.I. Ciubotaru, M. Dascalu, M.F. Zaltariov**, A.M. Macsim, **M. Damoc, A. Bele, C. Tugui, C.D. Varganici, M. Cazacu**; Reactive and Functional Polymers 181, 105419/1-19 (2022) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.059
5.	One-pot reduction-hydrophobization of heterogenized platinum with 1,1,3,3-tetramethyldisiloxane; **A.C. Stoica, M. Damoc**, L. Baltag, A.M. Macsim, A. Nicolescu, M.V. Dinu, G. Ionita, **M. Cazacu;** Applied Organometallic Chemistry 36 (1), e6485 (2022) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.049
6.	Fourteen-member silacycle built by cascade reactions induced by	Q4	0.331	0.041

	a platinum catalyst; **M. Damoc, A.C. Stoica**, D.A. Blaj, A.M. Macsim, **M. Dascalu**, C. Cojocaru, **S. Shova, M. Cazacu**; Journal of Molecular Structure 1269, 133760/1-8 (2022) (FI_{2023} = 3.8) (Q_{FI} = Q2)			
7.	Some theoretical and experimental evidence for particularities of the siloxane bond; **A.C. Stoica, M. Damoc**, C. Cojocaru, A. Nicolescu, **S. Shova, M. Dascalu, M. Cazacu**; Molecules 27(23), 8563 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)	Q2	0.660	0.094
8.	Dual crystalline-amorphous salen-metal complexes behave like nematic droplets with AIEgens vistas; **M. Dămoc, A.C. Stoica, M. Dascălu,** M. Asăndulesa, **S. Shova, M. Cazacu**; Dalton Transactions 50, 13841-13858 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.096
9.	Two-dimensional coordination polymers containing permethylated motifs - promising candidates for 2D emerging materials. Structural, behavioral and functional particularities; **A.C. Stoica, M. Dămoc, M.F. Zaltariov, C. Racleș, M. Cazacu**; Reactive and Functional Polymers 168, 105039 (2021) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.107
10.	Silanol-functionalized tetranuclear copper complex and its nanoscale-heterogenization by immobilization on glass surface from solution; **A.C. Stoica, M. Dămoc**, V. Tiron, **M. Dascălu**, A. Coroabă, **S. Shova, M. Cazacu**, Journal of Molecular Liquids 344, 117742 (2021) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.095
11.	Three reactions, one catalyst: A multi - purpose platinum(iv) complex and its silica - supported homologue for environmentally friendly processes; **C. Racles, M.F. Zaltariov, M. Damoc, A.M. Macsim, M. Iacob**, L. Sacarescu; Applied Organometallic Chemistry 34(3) e5422 (15pp) (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.065
12.	Permethylated dinuclear Mn(III) coordination nanostructure with stripe-ordered magnetic domains; **S. Shova**, V. Tiron, **A. Vlad**, G. Novitchi, D.G. Dumitrescu, **M. Damoc, M.-F. Zaltariov, M. Cazacu;** Applied Organometallic Chemistry e5957 (2020) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.049
13.	Nanoscale coordination polymer of dimanganese(II) as infinite, flexible nanosheets with photoswitchable morphology; **S. Shova, A. Vlad, M. Damoc**, V. Tiron, **M. Dascalu**, G. Novitchi, C. Ursu, **M. Cazacu**; European Journal of Inorganic Chemistry, (21), 2043-2054 (2020) (FI_{2023} = 2.3) (Q_{FI} = Q2)	Q2	0.393	0.049
14.	Salen-type Schiff bases spaced by the highly flexible and hydrophobic tetramethyldisiloxane motif. Some synthetic, structural and behavioral particularities **M. Damoc, A.C. Stoica**, A. M. Macsim, **M. Dascalu, M. F. Zaltariov, M. Cazacu** Journal of Molecular Liquids, 316, Article 113852/1-11 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.111
15.	The straightforward approach of tuning the photoluminescence	Q2	0.668	0.111

	and electrical properties of encapsulated PEDOT end-capped by pyrene; A. Farcas, **M. Damoc**, M. Asandulesa, P.H. Aubert, R.I. Tigoianu, L.E. Ursu; Journal of Molecular Liquids 376, 121461 (2023) (FI_{2023} = 6.0) **(Q_{FI} = Q2)**			

Stoica Alexandru-Constantin, PhD student, team member

Total number of publications (according to the Web of Science): 12

https://icmpp.ro/newsmartsil/files/Publications_Stoica_A.pdf

Publications in the 2019-2023 period, 12 articles (2Q1, 8Q2, 1Q3, 1Q4), A= 1.203

No.	Publications	Q_{AIS}	AIS	A
1.	Ferronematic Co(II) complex: an active filler for magnetically actuated soft materials; **M. Damoc**, V. Tiron, **C. Tugui**, C.D. Varganici, **A.-C. Stoica**, G. Novitchi, **M. Dascalu**, **M. Cazacu**; Small 2307006 (2023) (FI_{2023} = 13.3) (Q_{FI} = Q1)	Q1	2.545	0.318
2.	A Manganese (II) 3D Metal–Organic Framework with siloxane-spaced dicarboxylic ligand: synthesis, structure, and properties; **A.C. Stoica, M. Damoc, S. Shova**, G. Novitchi, **M. Dascalu**, **M. Cazacu**; Inorganics 11(1) 21 (2023) (FI_{2023} = 2.9) (Q_{FI} = Q2)	Q2	0.426	0.071
3.	Micellization turned on dual fluorescence and room temperature phosphorescence by pseudo-ESIPT in thiadiazole derivatives; **M. Damoc**, R.I. Tigoianu, **A.C. Stoica**, A.M. Macsim, **M. Dascalu**, **S. Shova, M. Cazacu**; Journal of Physical Chemistry C 127 (1), 99-109 (2023) (FI_{2023} = 3.7) (Q_{FI} = Q2)	Q2	0.827	0.118
4.	Fully carboxy-functionalized polyhedral silsesquioxanes as polar fillers to enhance the performance of dielectric silicone elastomers; **M. Dascalu, A.-C. Stoica, A. Bele**, L. Yu, D. Ionita, A.-L. Vasiliu, A.L. Skov, **C. Racles, M. Cazacu**; Polymer 289, 126492 (2023) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601	0.067
5.	One-pot reduction-hydrophobization of heterogenized platinum with 1,1,3,3-tetramethyldisiloxane; **A.C. Stoica, M. Damoc**, L. Baltag, A.M. Macsim, A. Nicolescu, M.V. Dinu, G. Ionita, **M. Cazacu;** Applied Organometallic Chemistry 36 (1), e6485 (2022) (FI_{2023} = 3.9) (Q_{FI} = Q2)	Q2	0.391	0.049
6.	Octakis(carboxyalkylthioethyl)silsesquioxanes and derived metal complexes: Synthesis, characterization and catalytic activity assessments; **M. Dascalu, A.C. Stoica, A. Bele**, A.M. Macsim, **A, Bargan**, C.D. Varganici, **G.T. Stiubianu, C.Racles, S. Shova, M. Cazacu**; Journal of Inorganic and Organometallic Polymers and Materials 32, 3955-3970 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q3	0.355	0.036
7.	Fourteen-member silacycle built by cascade reactions induced by a platinum catalyst; **M. Damoc, A.C. Stoica**, D.A. Blaj, A.M. Macsim, **M. Dascalu**, C. Cojocaru, **S. Shova, M. Cazacu**; Journal of Molecular Structure 1269, 133760/1-8 (2022) (FI_{2023} = 3.8) (Q_{FI} = Q2)	Q4	0.331	0.041
8.	Some theoretical and experimental evidence for particularities of the siloxane bond; **A.C. Stoica, M. Damoc**, C. Cojocaru, A.	Q2	0.660	0.094

	Nicolescu, **S. Shova, M. Dascalu, M. Cazacu**; Molecules 27(23), 8563 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q2)			
9.	Dual crystalline-amorphous salen-metal complexes behave like nematic droplets with AIEgens vistas; **M. Dămoc, A.C. Stoica, M. Dascălu,** M. Asăndulesa, **S. Shova, M. Cazacu**; Dalton Transactions 50, 13841-13858 (2021) (FI_{2023} = 4.0) (Q_{FI} = Q1)	Q1	0.577	0.096
10.	Two-dimensional coordination polymers containing permethylated motifs - promising candidates for 2D emerging materials. Structural, behavioral and functional particularities; **A.C. Stoica, M. Dămoc, M.F. Zaltariov, C. Racleș, M. Cazacu**; Reactive and Functional Polymers 168, 105039 (2021) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.107
11.	Silanol-functionalized tetranuclear copper complex and its nanoscale-heterogenization by immobilization on glass surface from solution; **A.C. Stoica, M. Dămoc**, V. Tiron, **M. Dascălu**, A. Coroabă, **S. Shova, M. Cazacu**, Journal of Molecular Liquids 344, 117742 (2021) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.095
12.	Salen-type Schiff bases spaced by the highly flexible and hydrophobic tetramethyldisiloxane motif. Some synthetic, structural and behavioral particularities **M. Damoc, A.C. Stoica**, A. M. Macsim, **M. Dascalu, M. F. Zaltariov, M. Cazacu** Journal of Molecular Liquids, 316, Article 113852/1-11 (2020) (FI_{2023} = 6.0) (Q_{FI} = Q2)	Q2	0.668	0.111

Ciubotaru Bianca-Iulia-PhD student, team member

Total number of publications (according to the Web of Science): 20

https://icmpp.ro/newsmartsil/files/Publications_Ciubotaru_B.pdf

Publications in the 2019-2023 period, 16 articles (7Q1, 6Q2, 1Q3, 1Q4), A= 1.252

No.	Publications	Q_{AIS}	AIS	A
1.	Amino-functionalized silicones processed as porous dual covalent/supramolecular networks for pressure sensing; **B.-I. Ciubotaru, M.-F. Zaltariov, M. Dascalu, A. Bele, A. Bargan, M. Cazacu**; Reactive and Functional Polymers 194, 105792 (2024) (FI_{2023} = 5.1) (Q_{FI} = Q1)	Q2	0.534	0.089
2.	The impact of the addition of vitamins on a silicone lining material to the oral mucosa tissue-evaluation of the biocompatibility, hydrolytic stability and histopathological effect; I. Gradinaru, **B.I. Ciubotaru**, M. Butnaru, F.D. Cojocaru, C.T. Covasa, T. Bibire, **M. Dascalu, A. Bargan, M. Cazacu, M.F. Zaltariov**; Medicina 59, 1936 (2023) (FI_{2023} = 2.6) (Q_{FI} =Q2)	Q3	0.531	0.053
3.	Mucoadhesive mesoporous silica particles as versatile carriers for doxorubicin delivery in cancer therapy; **M.F. Zaltariov, B.I. Ciubotaru**, A. Ghilan, D. Peptanariu, M. Ignat, **M. Iacob**, N. Vornicu, **M. Cazacu**; International Journal of Molecular Sciences 24, 14687 (2023) (FI_{2023} = 5.6) (Q_{FI} = Q1)	Q2	1.028	0.129
4.	Catalyst-free crosslinked sustainable functional silicones by	Q2	0.534	0.059

	supramolecular interactions; **B.I. Ciubotaru, M. Dascalu, M.F. Zaltariov**, A.M. Macsim, **M. Damoc, A. Bele, C. Tugui,** C.D. Varganici, **M. Cazacu**; Reactive and Functional Polymers 181, 105419/1-19 (2022) (FI_{2023} = 5.1) (Q_{FI} = Q1)			
5.	Silicones with different crosslinking patterns: Assessment from the perspective of their suitability for biomaterials; **B.I. Ciubotaru, M.F. Zaltariov, C. Tugui,** I.E. Stoleru, D. Peptanariu, **G.T. Stiubianu**, N. Vornicu, **M. Cazacu**; Surfaces and Interfaces 32, 102168 (2022) (FI_{2023} = 6.2) (Q_{FI} = Q2)	Q1	0.696	0.087
6.	Scalable silicone composites for thermal management in flexible stretchable electronics; **G.T. Stiubianu, A. Bele,** M. Grigoras, **C. Tugui, B.I. Ciubotaru, M.F. Zaltariov**, F. Borza, L.G. Bujoreanu, **M. Cazacu**; Batteries 8 (8), 95 (2022) (FI_{2023} = 4.0) (Q_{FI} = Q2)	Q2	0.861	0.096
7.	Chemical attachment of 5-nitrosalicylaldimine motif to silatrane resulting in an organic–inorganic structure with high medicinal significance, **M.-F. Zaltariov**, M. Turtoi, D. Peptanariu, A.-M. Macsim, L. Clima, C. Cojocaru, N. Vornicu, **B.-I. Ciubotaru, A. Bargan**, M. Calin, **M. Cazacu;** Pharmaceutics 2022, 14, 2838. (FI_{2023} = 5.4) (Q_{FI} = Q1)	Q1	0.756	0.069
8.	Elastic composites with PDMS matrix and polysulfone-supported silver nanoparticles as filler; **C. Racleș**, M. Asăndulesa, V. Tiron, **C. Țugui**, N. Vornicu, **B.I. Ciubotaru**, M. Mičušík, M. Omastová, A.L. Vasiliu, C. Ciomaga; Polymer 217, 123480 (2021) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q2	0.601	0.060
9.	Preliminary study concerning the adaptation of a periodontal dressing material to the inclusion of therapeutic agents; I. Grădinaru, **B.-I. Ciubotaru**, **M. Dascălu**; Archives of Metallurgy and Materials, *accepted for publication* (FI_{2023} = 0.6) (Q_{FI} = Q4)	Q4	0.104	0.035
10.	The influence of beverages on resin composites: an in vitro study; I. Gradinaru, A.L. Vasiliu, **A. Bargan**, L.E. Checherita, **B.I. Ciubotaru**, A.O. Armencia, B. Istrate, C.G. Dascalu, M.E. Antohe; Biomedicines 11(9), 2571(2023) (FI_{2023} = 4.7) (Q_{FI} = Q2)	Q2	0.804	0.089
11.	Evaluation of the behaviour of dental composites related to different types of drincks by the dynamic vapor sorption method; I. Gradinaru, A.L. Vasiliu, **A. Bargan, B.I. Ciubotaru**, A.O. Armencia, L.L. Hurjui, L.E. Checherita, C.G. Dascalu, M.E. Antohe, Romanian Journal of Oral Rehabilitation 15(2) (2023) (FI_{2023} = 0.7) (Q_{FI} = Q4)	-	0.027	0.003
12.	Mucoadhesive and antimicrobial allantoin/β cyclodextrins-loaded carbopol gels as scaffolds for regenerative medicine; D. Filip, D. Macocinschi, **M.F. Zaltariov**, C.A. Gafitanu, C.G. Tuchilus, **A. Bele, B.I. Ciubotaru**, A. Stoleru, **A. Bargan**; Gels 8(7), 416 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)	Q1	0.626	0.070
13.	Hydroxypropyl cellulose/pluronic-based composite hydrogels as biodegradable mucoadhesive scaffolds for tissue engineering; D. Filip, D. Macocinschi, **M.-F. Zaltariov, B.-I. Ciubotaru, A.**	Q1	0.626	0.063

	Bargan, C.-D. Varganici, A.-L. Vasiliu, D. Peptanariu, M. Balan-Porcarasu, M.-M. Timofte-Zorila; Gels 8(8), 519 (2022) (FI_{2023} = 4.6) (Q_{FI} = Q1)			
14.	Blends of sodium deoxycholate-based poly(ester ether)urethane ionomer and hydroxypropylcellulose with mucosal adhesiveness; D. Macocinschi, D. Filip, **B.-I. Ciubotaru**, R.P. Dumitriu, C.-D. Varganici, **M.-F. Zaltariov**; International Journal of Biological Macromolecules 162, 1262-1275 (2020) (FI_{2023} = 8.2) (Q_{FI} = Q1)	Q1	0.920	0.153
15.	Development and Performance of Bioactive Compounds-Loaded Cellulose/Collagen/Polyurethane Materials; I. Spiridon, N. Anghel, M.V. Dinu, S. Vlad, **A. Bele, B.I. Ciubotaru**, L. Verestiuc, D. Pamfil; Polymers 12(5), 1191 (2020) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.076
16.	Development and characterization of novel cellulose composites obtained in 1-ethyl-3-methylimidazolium chloride used as drug delivery systems polymers; I. Spiridon, I.M. Andrei, N. Anghel, M.V. Dinu, **B.I. Ciubotaru**; Polymers 13 (13), 2176 (2021) (FI_{2023} = 5.0) (Q_{FI} = Q1)	Q1	0.606	0.121

9. List of research projects won by the candidate and their value.

The team leader has so far implemented **24 projects (with more than three team members)** through which he attracted funds in the amount of **EUR 3,836,000 (13 as project director in the amount of EUR 2,718,886 and 11 as responsible partner in the amount of EUR 1,117,830)** and he was a team member of 20 other projects. In the last five years (in blue), he implemented **6 projects** worth 925,000 EUR (3 as project director worth 554,000 EUR and 3 as responsible partner, worth 371,000 EUR), and was a member of the teams of three projects (2 PED and a H2020) coordinated by members of to the **NewSmarSil team**. Five other PD or TE projects were won and implemented by SmartSil team members in the past five years.

No.	**Title**	**Project type/contract number**	**Period**	**Budget equivalent EURO**
Research projects implemented as project director: 13, of which in the last five years: 3				
1.	Emerging 2D materials based on two-dimensional permethylated metal-organic networks, **PerMONSil** *1+12 team members*	Project PN-III-P4-ID-PCE-2020-2000, Contract 207/2021 1st funded: 97.8 points; Final Rating: Excellent	2021-2023	250,000
2.	Soft electromechanical transducers based on 3D printed silicones, **3DETSi** *1+14 members/3 parteners*	Project PN-III-P2-2.1-PED-2019-3652, Contract 320/3.08.2020 10th funded: 96.6 points Final Rating: Excellent	2020-2022	124,000
3.	Metal-organic frameworks with hydrophobicity fine-tunned by using silicones chemistry, **SiMOFs**	Proiect: PN-III-P4-ID-PCE-2016-0642, Contract 114/2017	2017-2019	180,000

	1+10 team members	5th funded: 95.0 points Final grade: A+		
4.	Silicone-based energy conversion units built up by green chemistry, **GrEENergy**	Project: PN-III-P2-2.1-PED-2016-0188/CNCS/CCCDI-UEFISCDI, Contract no. 68PED/2017	2017-2018	128,000
5.	New coordination networks containing polyfunctional flexible bridges	Project: PN-II-ID-PCE-2012-4, Contract no. 53/2.09.2013	2013-2016	250,000
6.	Transition element coordination compounds based on flexible polydentate ligands as biologically active agents and precursors for oxidative materials, **ComSilBio**	Project: PN-II-CT-RO-MD-2012-1, Capacities, Bilateral Cooperation Subprogramme - Romania - Republic of Moldova Bilateral Cooperation Programme,Contract no. 690/16.04.2013	2013-2014	9,800
7.	Coordinating compounds of 2d metals with Schiff bases containing siloxane or silane units, **CoMetAR**	Project: PN-II-CT-RO-AT-2013 -1, Capacities Programme, Subprogramme "Bilateral Cooperation - Romania - Austria Bilateral Cooperation Programme, Contract no.749/01.01.2014	2014-2015	6,375
8.	Synthesis and study of the polymeric metallosiloxanes - new materials for catalysis and nanosciences, **POLISILMET**	POS CCE-A2-O2.1.2-2009-2, Contract no. 129/2010	2010-2013	1,500,000
9.	Multifunctional nanostructured silicone materials, **NANOSIMAT**	Project: CEEX-MATNANTECH 52/2006	2006-2008	252,622
10.	New polymer-metal complex structures containing siloxanes. Synthesis strategies, characterization, applications	Contract CNCSIS no. 41400/2003	2003-2005	9,862
11.	Hydrolytically degradable siloxane-organic polymer structures for biomedical applications	Contract AR: no. 50/18. 06. 2003	2003-2004	1,689
12.	Organo-siloxane biphasic copolymers - an alternative to polysiloxanes in the cost-performance competition	Contract ANSTI: no. 5052GR/99, Supplementary document no: 6011/27.06.2000	1999-2001	2,975
13.	Synthesis of siloxane compounds by ion exchange catalysis	Contract MCT no. 3040/3.12.1997	1997-1998	3,563
Total funds raised as project manager				**2,718,886**
Research projects implemented as responsible partner (11), of which in the last five years: 3				

1.	Smart composite system with self-controlled configuration developed from shape memory/ amorphous magnetic materials in elastomeric matrices, **SMAMEM** *1+3 team members*	PN-III-P2-2.1-PED-2019-4138, Contract 321PED/2020	2020-2022	20,000
2.	Eco-innovative technologies for recovering of the platinum group metals from scrap catalytic convertors"- **ECOTECH-GMP** *1+10 team members*	Contract 76PCCDI/2018	2018-2020	170,000
3.	Mimicking living matter mechanisms by five-dimensional chemistry, 5D-nanoP *1+7 team members*	PN-III-P4-ID-PCCF-2016-0050/ Contract 4/2018	2018-2021	180,000
4.	New mechanisms and concepts for exploiting electroactive **Poly**mers for **W**ave **E**nergy **C**onversion, **PolyWEC**	FP7-Energy-2012-1-2stage Energy.2012.10.2.1: Future Emerging Technologies, Project no. 309139	2012-2016	376,533
5.	European Scientific Network for Artificial Muscles, **ESNAM COST** *national leader, member of the Management Committee for Romania.*	COST Action MP1003	2010-2014	-
6.	Modeling and automated control using artificial intelligence tools for applications in chemistry and process engineering, **INTELCHIM**	PNCD II- Partnerships Contract ANCS 71-006/2007	2007-2011	76,570
7.	Emergency post-earthquake strengthening of severely damaged structures using new injection materials produced in Romania, **SEISMINJECT**	PNCD II-31-079/14.09.2007	2007-2010	156,221
8.	Processes and devices based on oxide and polymer thin films for Transparent Electronics and Optoelectronics, **ELOTRANSP**	Contract PNCD II-PC 12-128/1.10.2008	2008-2011	46,830
9.	Nanostructured polymer composites for use in environmental monitoring, **NANOPOL**	Contract CEEX no. 5618/10.10.2005	2005-2008	74,717
10.	The use of neural networks and genetic algorithms in polymerization reaction engineering. Applications to	Contract CERES no. 4-22/4.11.2004	2004-2006	13,800

	modeling and optimization of polysiloxane synthesis			
11.	Study of physicochemical and rheological properties of Moldosil-type polysiloxane systems /Owner: Polytechnic University of Bucharest, Responsible: Conf. Dr. Alexandru Marin/ Partners: Institute of Macromolecular Chemistry "Petru Poni", ICMPP, Iasi – Responsible dr. Maria Cazacu and Romanian Railway Authority AFER, Bucharest (ICMPP budget: 2375 USD)	Contract ANSTI no. 6111/2000, Supplementary document: 1/2000	2000-2002	2,159
Total funds attracted as a responsible partner, EUR				**1,117,830**
Total funds attracted as director and responsible partner, EUR				**3,836,716**
Research projects as team member (20)				
National				
1.	Intelligent tools for design, processing and optimization of new PS-POSS-IL (polysulfone-silsesquioxanes impregnated with ionic liquids) type membranes applied in CO_2 gas separation, **AISyn-PPOSS**	PN-III-P2-2.1-PED-2021-3900, **Contract PED 698/2022**/Dr. A. Bargan	2022-2024 (24 luni)	119,759
2.	Dynamic dual mode materials for human thermal comfort, **DYMATCO**	PN-III-P2-2.1-PED-2019-1885, Contract: 463PED / 2020/Dr. George Stiubianu	2020-2022	126,982
3.	Functional polyimides for high-performance nanostructured materials	Project Idei 654/2009	2009-2011	215,223
4.	(Bio)compozite nanostructurate sensibile la stimuli externi	Project Idei 483/2009	2009-2011	239,137
5.	Siloxane compounds as precursors for nanomaterials, Project Director Dr. Carmen Racles	Project PNCD II Idei (CNCSIS)	2007-2009	229,723
6.	Controlling the interaction of human and bacterial cells with NANO-structured surfaces: strategies for making "INTeligent" biosurfaces, **NANOINT**	Contract RELANSIN 199/20 iulie 2006	2006-2008	424,820
7.	New polymer-based nanoelectromechanical components and systems for actuators and manipulators, **CONAPO**/Coordinator, ICPE Bucharest/dr. Mircea Ignat	Project CEEX-MATNANTECH 97/2006	2006-2008	339,856

8.	Integrated science network for the development of knowledge-based multifunctional polymeric materials, **MULTIPOL**, Project director: Dr. V. Harabagiu	Contract CEEX no. 40(510)/3.10.2005	2005-2008	414,685
9.	Multifunctional magnetostrictive materials for intelligent hybrid actuator and transducer sensor systems, **MAGSAT** Responsible partner: V. Harabagiu.	Contract CEEX no. 34/6.10.2005	2005-2008	414,685
10.	Siloxane polyesters with multiple optical properties, Resp. Grant: Dr. C. Racles	Contract CNCSIS no. 32952/2004	2004-2006	12,573
11.	Contributions to the study of styrene radical polymerization by modeling, computer simulation and optimization, Responsible partener: Dr. S. Morariu/ Total value: 4267 USD	Contract CERES no. 47/15.10.2001	2001-2003	3,878
12.	Polyorganosiloxanes - components for the design of materials with special properties and uses, Theme Leader: Dr. V. Harabagiu/ Total value: 5433 USD	ORIZONT 2000 Programme, Contract no. 491/1.06.2000/ Supplementary document no: 1/2002	2000-2002	4,938
International				
1.	Multifunctional Spin Crossover Materials, SPINSWITCH	H2020-MSCA-RISE-2016 No 734322/Dr. Sergiu Shova	2017-2022	144,000
2.	Energy harvesting by dielectric elastomer generators, Responsabil proiect dr. C. Racles	Romania-Switzerland Research Programme (RSRP) Programme of the NIIP in Romania: Idei No: 10/ RO-CH/RSRP/01.01.2013	2013-2015	158,778
3.	Strengthening the Romanian research capacity in Multifunctional Polymeric Materials, Membru in Advisory Board, **STREAM**	FP7-REGPOT-2010-1, Specific Programme: Coordination and support action, Grant Agreement no: 264115	2011-2014	2,799,999
4.	The financial support of European Social Fund – „Cristofor I. Simionescu" Postdoctoral Fellowship Programme (mentor postdoctoranzi)/ **Total value:** 19 486 466 RON **(mentoring three postdocs)**	(ID POSDRU/89/1.5/S/55216), Sectoral Operational Programme Human Resources Development 2007 – 2013	2010-2013	4,700,000
5.	Nouveaux polysiloxanes	Brâncuși Integrated Action	2006-2008	-

	fonctionnalisés biocompatibles à propriétés tensioactives pour l'encapsulition de principes actifs	Programme (IAP) Funding institution: MEC		
6.	Romanian action for integrating, networking and strengthening the ERA, RAINS, Contract INCO-CT-2005-017142;director Bogdan C. Simionescu (Member of the Board)	Contract INCO-CT-2005-017142	2005-2008	477,589
7.	Effects of size and shape of macromolecules on their solution properties, Project Responsible Prof. Bernhard A. Wolf, Institut fur Physikalische Chemie, Johanes Gutenberg Universitat, Mainz, Germany; Theme leader Romanian side: dr. Maria Bercea; Dr. M. Cazacu: responsible subtopic: „Synthesis and Characterization of High Molecular Weight Poly(dimethylsiloxane)"Value 3000 DM/1525 USD	Inter-academic collaboration project (2308/6.06.2000) accepted and funded by DFG, Germany	2000-2001	1,386
8.	Effects of size and shape of macromolecules on their solution properties, Project Responsible Prof. Bernhard A. Wolf, Institut fur Physikalische Chemie, Johanes Gutenberg Universitat, Mainz, Germany; Theme leader Romanian side: dr. Maria Bercea; Dr. M. Cazacu: responsible subtopic: „Synthesis and Characterization of High Molecular Weight Poly(dimethylsiloxane)"Value 3000 DM/1525 USD	Inter-academic collaboration project (2308/6.06.2000) accepted and funded by DFG, Germany	1998-1999	20,907
Projects coordinated by SmartSil team members as project directors in the last five years:				
				EUR
1.	New scaffolds for extension of structure-activity relationship studies of metal-based anticancer drugs, **METDRUG**	PN-III-P1-1.1-PD-2016-1027, Contract: 5/02.05.2018/ Dr. Mirela Zaltariov, Mentor: Prof. Vladimir Arion	2018-2020	50,000
2.	Interpenetrated "spider web" networks based on siloxanes for harvesting wave energy,	PN-III-P1-1.1-PD-2019-0148/ Dr. A. Bele 5th place in financing: 95	2020-2022 (18 luni)	36,890

	SilWebWEH	points Final Rating: Excellent		
3.	Multiple-Stimulus-Responsive Silicone Composites for Switchable Dual-Function Transducers, SwitchACT	PN-III-P1-1.1-PD-2019-0649, Contract PD129 /2020/Dr. C. Țugui, mentor: dr. Valeria Harabagiu 5th place in financing: 95 points	2020-2022 (24 luni)	49,390
4.	Polysiloxane/metal complexes composites with dielectric elastomers properties, DE-Comp	PN-III-P1-1.1-PD-2021-0687/2022/Dr. A. Soroceanu, Mentor: dr. Valeria Harabagiu 13th place in financing: 83.8 points	2022-2024 (24 luni)	50,000
5.	Intelligent tools for design, processing and optimization of new PS-POSS-IL (polysulfone-silsesquioxanes impregnated with ionic liquids) type membranes applied in CO_2 gas separation, AISyn-PPOSS	PN-III-P2-2.1-PED-2021-3900, **Contract PED 698/2022**/Dr. A. Bargan 4th place in financing: 98 points	2022-2024 (24 luni)	119,759
6.	Dynamic dual mode materials for human thermal comfort, DYMATCO	PN-III-P2-2.1-PED-2019-1885, Contract: 463PED/ 2020/Dr. George Stiubianu	2020-2022	126,982
7.	Silicone-based modular artificial sensing skin for MMOD impact damage detection and evaluation system in spacecraft, SilArtSkin	PN-III-P1-1.1-TE-2021-0156/Dr. A. Bele 1st place in funding: 100 points	2022-2024 (24 luni)	90,000

Research services: moisture sorption analyses in dynamic mode (Contract no. 2044/27.04.2012 SARA PHARM SOLUTIONS SRL and Contract 2496-18.04.2019 with TERACRYSTAL S.R.L,) crystallographic analysis and provision of research services consisting of "Preparation of catalytic supports based on hydrophobic polymers and platinum impregnation" (Service contract 11612-14.08.2018-12000 RON and 13285/27.09.2019-15000 RON with the National Research and Development Institute for Cryogenic and Isotope Technologies, Râmnicu Vâlcea). Value: approx. **12,500 EUR**.

10. List of patents filed and accepted, if applicable

Patents: 8 granted (one international), of which two (in blue) in the last five years and five patent applications (in blue) under evaluation:

National patents	
1.	Lăzărescu, S., Marcu, M., **Cazacu, M.**, Bolohan, St., Di-tert-butyl peroxide, conditioned in the form of a paste, Patent of invention no. 106569 B1/**1993.**
2.	Marcu, M., **Cazacu, M.**, Lăzărescu, S., **Matricală, C.**, Simionescu, M., Bolohan, St., Process for obtaining tetramethyltetravinylcyclotetrasiloxane, Patent of invention no. 114329/**1999**.
3.	**Cazacu, M.**, Marcu, M., Vlad, A., Procedure for obtaining diphenylsilanediol in heterogeneous catalysis with anion exchangers, Patent of invention no. 122779/**2010.**
4.	Ignat, M., Zărnescu, G., Hamciuc, E., Hamciuc, C., **Cazacu, M.**, Sava, I., Microgenerator based on elastomer, Patent of invention no. 127096 A2/**2012**.
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** Rezultatele activității de cercetare sunt evaluate conform Anexei nr. 3 la Regulamentul de organizare și funcționare a programului Gala Cercetării Românești.

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