



Annex no. 1 – Application

1. Applicant

Surname: **DRAGOMIR (married in 2022)**

Surname before marriage: **VLADESCU**

Name: **ALINA**

PhD from: **2011 PhD in Materials Science**, University Politehnica of Bucharest, Doctoral School of Material Science and Engineering, Romania

Current position: **Senior Researcher grade I (SR1)**

Institution: **National Institute of Research and Development for Optoelectronics INOE2000**

Department: **Advanced Surface Processing and Analysis by Vacuum Technologies - ReCAST**

2. Edition of “Gala Cercetării Românești”: **2024**

3. Award and topic for application: **Engineering Sciences**

4. Individual application

5. The most important achievements in the last 5 years (December 2023 - January 2019)

• **CURRENT POSITIONS**

2022–2023 **Supervisor of students practical stages**, collaboration between INOE and University Politehnica of Bucharest, Faculty of Material Science and Engineering

2015–present **Senior researcher** (grade I); National Institute of Research and Development for Optoelectronics (INOE2000), Department of Advanced Surface Processing and Analysis by Vacuum Technologies (ReCAST), Romania

2016–present **Head of Functional Characterization of Materials Laboratory**; INOE2000, ReCAST Department, Romania

2016–present **Associate researcher**, National Research Tomsk Polytechnic University, Russia

• **PREVIOUS POSITIONS**

2015–2022 **Associate Professor**, University Politehnica of Bucharest, Faculty of Material Science and Engineering, Department of Metallic Materials Science, Romania

• **OTHER TRAINING**

2023 **Course Diploma** in “Management of risk in project”, Codecs, Romania



- **SUPERVISION OF GRADUATE STUDENTS**

2019–present **8 Bachelor Students** and **4 Master Students**, University Politehnica of Bucharest, Faculty of Material Science and Engineering, Romania

- **ORGANISATION OF SCIENTIFIC MEETINGS:**

2023: **Member** in *Technical Program Committee* of [PCM 2023](#), China, online

2022: **Member** in *International Scientific Committee* of [6th International Conference –NT-SMT-LS 2022](#), Braşov, Romania;

2021: **Member** in *Technical Program Committee* of [PCM 2021](#), China, online;

2016-2020: **Member** in *Technical Committee* of [PCM'16&PCM'17](#)-China, [PCM'18](#)-Japan, [PCM'19](#)-Thailand; [PCM'20](#)-China;

2019: **Co-organizer of Symposium Immunomodulation** of [TERMIS European Chapter Meeting 2019](#), Rhodes, Greece;

- **INSTITUTIONAL RESPONSIBILITIES:**

2022: **Member** in Commission of referees of Ethical Committee of INOE;

2019–present: INOE delegate on Anelis Plus;

2015–2021: **Member of [Scientific Council of INOE2000](#)** and **organizer of Scientific Seminar** of INOE2000, Romania;

2012–present: **Member in Commissions for Young Scientists**, INOE2000, Romania

2023–present: **Member** in Commission of experts of [National Register of Experts for the certification of research&development activity \(REXCD\)](#) – topic of Advanced functional materials

- **ACTIVITIES AS EDITOR:**

2020–present: [Editorial Board Member of Coatings](#), MDPI, Switzerland;

2023–2024: Editor of Issue [Surfaces in Healthcare Bridging Medicine and Dentistry with Material Science](#), MDPI, Switzerland;

2019–2022: Editor of Issue [Surface Modification of Medical Implants](#), MDPI, Switzerland;

- **REVIEWER:** 2010–present: Surf. Coatings Technology, Materials Science and Engineering B; 2012–present: Applied Surface Science; 2013–present: Materials Chemistry and Physics

- **EVALUATOR:**

2021: National Science Centre, Poland

2022: National Research&Development Agency (ANID), Chile

2023: PHD IN INDUSTRY, Cipru

2023–2024: Evaluation of PhD thesis for The University of Queensland, Brisbane, Australia



- **PROJECT LEADER IN ACADEMIC GRANTS in last 5 years:**

3 international projects: *Meranet-HardCoat* (2022-2024), *Meranet-ISIDE* (2020-2023), *RusPLUS - Coatdegrabac* (2018-2022)

4 National Projects: PCE: *Coat4Bio* (2021-2023), *Complex project: Medicalmetmat* (2018-2020), *Demonstration experimental project: Degracoat* (2017-2018); *BioMimCells-621 PED* (2022-2024)

- **OTHER INDICATORS:**

Membership in Scientific Societies:

- European Thin Solid Films (2015-present);
- Romanian Tribology Association (2015-present);
- Romanian Society for Biomaterials (2003-present);

Awards: 32 medals (<https://recast.inoe.ro/awards.html>), the most relevant in the last 5 years are:

- **Gold Medal** at 46th International Exhibition of Inventions of Geneva, April 2018;
- Award namely "**Pro Scientia et Innovatio**" at EuroInvent May 2022, Romania;
- **Gold Medal** at International Salon INVENTCOR, edition IV, 14/16 september 2023, Deva, Romania
- **Gold medal and Diploma of excellency, Internationals Salon of Inventions and Innovations TRAIAN VUIA**, 15-17 June 2023, Timisoara, Romania
- **Gold Medal** at 16th International Invention and Innovation Show INTARG, May 2023, Katowice, Poland
- **Gold Medal and special prize from TISIAS Canada** at 8th Annual Edition of International Invention Innovation Competition in Canada, iCAN 2023, 26 August 2023, online

- **SCIENTOMETRIC INDICATORS:**

Web of Science: Hirsch index = 28; Total number of citations = 2049

138 articles and 55 of them are published from 2019 to 2023, meaning 39.85%;

[17 patents \(7 accepted and 10 applications\)](#), [5-chapter books](#) (international publishing houses); 2 books (national houses); [11 invited lectures](#) (in the last 5 years) and [17 oral presentations at international conferences](#) (in the last 5 years); 183/82 communications at inter-/national conferences (in whole career).

Collaboration with various researchers from other countries:

S. Kulesza, University of Warmia, Poland; **S.C. Padmanabhan**, University College Cork, Ireland; **F. Ak Azem**, Dokuz Eylul University, Turkey; **R. Surmenev**, Tomsk Polytechnic University, Russia; **Y. Dekhtyar**, Riga Technical University, Latvia; **K.D. Dearn**, University of Birmingham,



UK; **A. Skirtach**, Ghent University, Belgium; **C. Battocchio**, Roma Tre University of Rome, Italy; **G. Ambrogio**, University of Calabria, Italy; **A.G. Beck-Sickinger**, Leipzig University, Germany; **Nesrin Hasirci**, Middle East Technical University, Chemistry Department, Ankara, Turkey, etc. The list of published papers in collaboration is a prove of her large collaboration.

6. Curriculum Vitae

Alina Vlădescu (Dragomir) wishes to present her candidacy for the award of a ROMANIAN RESEARCH GALA 2024. The experience gained and knowledge acquired over the course of 21 years lead her to believe that she is the right person for receiving a recognition of her merits. Moreover, due to her dedication and commitment in providing excellent scientific results, she became the youngest senior researcher (CS1) in the INOE with highest level of achievements, serving as a model for young researchers. She is 46 years old and works as a Senior Researcher at the Research and Development Institute for Optoelectronics (INOE 2000), Department for Advanced Research for Surface Processing and Analysis, for 21years. During this time, she participated in her continuous development, encountered its people and challenges, and contributed—according to her skills and training—to increasing her research capacity. Since her employment, she opened a new research direction, focusing on obtaining nanostructured thin films with prefigured properties for medical applications, which has shown spectacular annual growth both nationally and internationally. Despite the challenges, she never gave up on seeking scientific recognition for the Institute where she works. Since 2016, she is [Head of Functional Characterization of Materials Laboratory](#) from ReCAST Department, INOE2000, Romania. Due to her position, from October 2022 to September 2023, she has been responsible for the practical training of 2 PhD students and 1 postdoctoral researcher of UPB, based on the project namely „Pregătirea doctoranzilor și cercetătorilor poStdoctorat în vederea dobândirii de coMpetențe de cercetARE aplicaTiva – SMART” (Training of PhD students and postdoctoral researchers to acquire applied research competencies - SMART), no. of project 13530/16.06.2022, Code SMIS: 153734. Alina Vladescu (Dragomir) has also a longstanding collaboration with the Polytechnic University of Bucharest-UPB (from 2015 to 2022), she collaborated in the development of **practical laboratories lessons** for the Surface Engineering specialization and also to be the **coordinator of dissertation or bachelor's projects** in collaboration with Assoc. Prof. Cosmin M.Cotrut, professor in UPB.

Moreover, starting from 2016, she became an **associate researcher** within the Research School of Chemistry & Applied Biomedical Sciences of **National Research Tomsk Polytechnic University**



(TPU), **Russia**; her activity involved the research tasks and works with PhD students for their experimental tasks, being demonstrated by the published articles with the TPU affiliation.

She has experience in project management, both in national and international programs (in the last 5 years: 3 international and 4 national). This experience covers various aspects, from time and budget management to coordinating mixed working teams (with national/international partner institutions), meeting deadlines and quality standards, organizing technical and dissemination activities, representing in expert committees, and gaining the trust of funding organizations.

Scientifically, she started her career in the "Materials Science and Engineering" field in September 2002, and in the last 5 years, her scientific achievements are: *2 chapters in international books, 54 papers published in high ISI-rated journals, 10 granted patents, 15 patent applications in the process of patenting, 11 invited papers presented at international conferences, 17 oral papers at international conferences, 72/16 papers presented at international/national conferences.*

On the educational side, she has delivered invited lectures at various summer schools/international conferences, supervised experimental activities for students, master's students, and PhD students at the Faculty of Materials Science and Engineering, University Politehnica of Bucharest. Since 2015, she has been teaching laboratory courses for the "Surface Engineering" course for fourth-year students specializing in "Medical Engineering" at the Faculty of Materials Science and Engineering, University Politehnica of Bucharest. Since 2011, she has gained experience in supervising the scientific activity of young students/PhD students, and from 2019 she supervised thesis of 8 Bachelor Students and 4 Master Students, University Politehnica of Bucharest, Faculty of Material Science and Engineering, Romania in collaboration with Assoc. Prof. Dr.Eng. Cosmin Mihai Cotrut (*Vice Dean of Materials Science and Engineering Faculty, National University of Science and Technology Politehnica Bucharest*). She met the criteria for doctoral supervision and she will obtain her habilitation in 2024.

She also held invited presentations at the international conferences and also at universities such as: Chemnitz University of Technology (2023, Germany), University Olomouc (2022, Czech Republic), workshop organized by Tecnologica SRL (2023, Italy), Technical University of Tomsk (2018-2022, Russia), due to her international collaborations in the field of materials science with other experts.

She also held courses for the students of, where she works as a collaborator in the field of materials science.

From 2012 to the present, she had the following ***institutional responsibilities***:



2015–present: **Coordinator of diploma/undergraduate thesis**, University Politehnica of Bucharest, Faculty of Materials Science and Engineering;

2012–present: **Member of Examination Boards** for candidates applying for positions as young scientific researchers (ACS, CS, CSIII), National Institute for Optoelectronics (INOE 2000);

From 2017 to 2021, she held the position as Member of the Scientific Council of the National Institute for Optoelectronics (INOE 2000), and among her main duty was organized the Scientific Seminar of the INOE 2000 Institute.

She has been an Organizer or Member of Scientific Committees for international conferences:

2023: **Member** in *Technical Program Committee* of [PCM 2023](#), China, online

2022: **Member** in *International Scientific Committee* of [6th International Conference –NT-SMT-LS 2022](#), Braşov, Romania;

2021: **Member** in *Technical Program Committee* of [PCM 2021](#), China, online;

2018-2020: **Member** in Technical Committee of [PCM'18](#)-Japan, [PCM'19](#)-Thailand; [PCM'20](#)-China;

2019: **Co-organizer of Symposium Immunomodulation** of [TERMIS European Chapter Meeting 2019](#), Rhodes, Greece.

Since 2016, she took on the role of member of the Editorial Board of the Journal of Coating Science and Technology ISSN (online): 2369-3355. Since 2020, she is also member of the [Editorial Board Member of Coatings journal](#). Starting from November 2023, she is co-editor of Issue [Surfaces in Healthcare Bridging Medicine and Dentistry with Material Science](#), MDPI, Switzerland. Between 2019 and 2022, she was Editor of Issue [Surface Modification of Medical Implants](#), MDPI, Switzerland.

She has been an evaluator for international research programs: 2021: National Science Centre, Poland; 2022: National Research&Development Agency (ANID), Chile; 2023: PHD IN INDUSTRY, Cipru. Starting to November 2023, she is a referee of PhD thesis for The University of Queensland, Brisbane, Australia.

She has been a reviewer for international/national ISI-rated journals.

Her international involvement has brought her into contact with experts from prestigious institutions in Europe, allowing me to understand the importance of collaboration between people and the scientific and administrative support from management. This activity is highlighted by publications in collaboration with foreign experts (visible in her list of publications).

She has great respect for order and rules, but only to the extent that they facilitate activity and do not limit creativity.

**7. Lists o publications between in the last 5 years (December 2023 - January 2019)**

53 papers published in ISI journals: 22 in Q1 (41.50%); 27 in Q2 (50.94%); 2 in Q3; 1 in Q4

1 paper published in ISI proceeding without IF

2 chapters book

333 citations (without self-citations): 40.24% in Q1; 47.14% in Q2; 7.8% in Q3; 3.3% in Q4; there are some ISI journals which have not quadrille.

Link of published papers:

- <https://orcid.org/0000-0001-5770-4541>
- https://recast.inoe.ro/selected_paper_journals.html

No.	Paper	JCR cuartila	AIS	No. of citations
1.	Effect of the C/N ratio modification on the corrosion behaviour and performance of carbonitride coatings prepared by cathodic arc deposition, M.N. Mirzayev, K.M. Hasanov, A.C. Parau, E. Demir, A.S. Abiyev, T. Karaman, S.H. Jabarov, M. Dinu, E.P. Popov, <u>A. Vladescu</u> (Dragomir) (Corresponding Author), Journal of Materials Research and Technology, 27 (2023) 1724-1738, doi: 10.1016/j.jmrt.2023.09.318	Q1	0.812	0
2.	Quaternary ZrCuCa-based thin films metallic glasses deposited by cathodic arc deposition, A.C. Parau, M. Dinu, C. Vitelaru, C.M. Cotrut, D.M. Vranceanu, <u>A. Vladescu</u> (Dragomir) (Corresponding Author), Arabian Journal of Chemistry, 16 (2023) 1-13, doi: 10.1016/j.arabjc.2023.105312	Q2	0.679	0



3.	Leptothrix biofilms and the formation of oxygen and hydrogen molecules in structure, D. M. Mirzayeva, S. P. Kaplina, M. V. Gustova, I. Z. Kamanina, O. V. Anisimova, A. S. Abiyev, A. G. Asadov, A. S. Doroshkevich, <u>A. Vladescu</u> , S. H. Jabarov, Y. I. Aliyev, R. N. Mehdiyeva, M. N. Mirzayev, L. Slavov, E. Demir, and E. Popov, Modern Physics Letters, 38, No. 02 (2023) 2350260, doi: 10.1142/S0217984923502603	Q2	0.206	0
4.	In Vitro Evaluation of Ag- and Sr-Doped Hydroxyapatite Coatings for Medical Applications, E. Ungureanu, <u>A. Vladescu</u> (Dragomir), A.C. Parau, V. Mitran, A. Cimpean, M. Tarcolea, D.M. Vranceanu, C.M. Cotrut, Materials, 16 (2023) 1-28, doi: 10.3390/ma16155428	Q2	0.511	2 - DOI: 10.3390/coatings13101681 (Q2) - DOI: 10.1039/d3ma00363a (Q2)
5.	Process window for electron beam melting of Ti-42Nb wt.%, I.Y Grubova, M. Kozadaeva, A. P. Volkova, D. Khrapov, R.A. Surmenev, A.V. Koptug, <u>A. Vladescu</u> (Dragomir), A. Tyurin, M.A. Surmeneva, Journal of Materials Research and Technology, 22 (2023) 4457-4478, doi: 10.1016/j.jmrt.2023.06.234	Q1	0.812	0



6.	Assessment of Microstructural, Mechanical and Electrochemical Properties of Ti-42Nb Alloy Manufactured by Electron Beam Melting, M. Kozadaeva, M. Surmeneva, D. Khrapov, V. Rybakov, R. Surmenev, A. Koptyug, <u>A. Vladescu</u> (Dragomir), C.M. Cotrut, A. Tyurin, I. Grubova, Materials, 16 (2023) 1-25, doi: 10.3390/ma16134821	Q2	0.511	0
7.	Preparation and characterization of hydroxyapatite coating by magnetron sputtering on Mg-Zn-Ag alloys for orthopaedic Trauma implants, L. Dragomir (Nicolescu), A. Antoniac, V. Manescu (Paltanea), A. Robu, M. Dinu, I. Pana, C.M. Cotrut, E. Kamel, I. Antoniac, J. V. Rau, <u>A. Vladescu</u> (Dragomir), Ceramics International, 49 (2023) 26274-26288, doi: 10.1016/j.ceramint.2023.05.116	Q1	0.590	0
8.	Effect of Si and Nb additions on carbonitride coatings under proton irradiation: A comprehensive analysis of structural, mechanical, corrosion, and neutron activation properties, <u>A. Vladescu</u> (Dragomir), M.N. Mirzayev, A.S. Abiyev, A.G. Asadov, E. Demir, K.M. Hasanov, R.S. Isayev, A.S. Doroshkevich, S.H. Jabarov, Sv. Lyubchyk, S. Lyubchyk,	Q1	0.852	0



	E.P. Popov, Nuclear Materials and Energy, 35 (2023) 101457, doi: 10.1016/j.nme.2023.101457			
9.	Influence of deposition temperature on the structure and functional properties of Mg doped hydroxyapatite coatings deposited on manufactured AZ31B alloy substrates by RF magnetron sputtering, I. Pana, A.C. Parau, C.M. Cotrut, M. Dinu, D.M. Vranceanu, A. Kiss, G Serratore, D. Bohner, C. Vitelaru, G. Ambrogio, A.G. Beck-Sickinger, <u>A. Vladescu</u> (Dragomir) (Corresponding Author), Ceramics International, 49 (2023) 22340-22354, doi: 10.1016/j.ceramint.2023.04.064	Q1	0.590	1 DOI: 10.3390/ijms241713157 (Q1)
10.	In vitro Cytotoxicity, Corrosion and Antibacterial Efficiencies of Zn Doped Hydroxyapatite Coated Ti Based Implant Materials, S. Buyuksungur, P.Y. Huri, J. Schmidt, I. Pana, M. Dinu, C. Vitelaru, A.E. Kiss, D.G. Tamay, V. Hasirci, <u>A. Vladescu</u> (Corresponding Author), N. Hasirci, Ceramics International, 49 (2023) 12570-12584, doi: 10.1016/j.ceramint.2022.12.119	Q1	0.590	6 - DOI 10.1016/j.msea.2023.145889 (Q1) -DOI: 10.1016/j.surfcoat.2023.130118 (Q1) - DOI: 10.1007/s10534-023-00551-4 (Q3) - DOI: 10.3390/ijms241713157 (Q1) - DOI: 10.3390/coatings13040722 (Q2) - DOI: 10.1016/j.colsurfb.2023.113278 (Q1)
11.	Effects of Film Thickness of ALD-Deposited Al ₂ O ₃ , ZrO ₂ and HfO ₂	Q2	0.511	2 -DOI: 10.3390/ma16145096 (Q2)



	Nano-Layers on the Corrosion Resistance of Ti(N,O)-Coated Stainless Steel, M. Dinu, K. Wang, E.S.M. Mouele, A.C. Parau, <u>A. Vladescu</u> (Dragomir), X. Liang, V. Braic, L.F. Petrik, M. Braic, Materials, 16 (2023) 1-21, doi: 10.3390/ma16052007			- DOI: 10.3390/ma16145005 (Q2)
12.	TiSiCN as Coatings Resistant to Corrosion and Neutron Activation, M.N. Mirzayev, A.C. Parau, L. Slavov, M. Dinu, D. Neov, Z. Slavkova, E.P. Popov, M. Belova, K. Hasanov, F.A. Aliyev, <u>A. Vladescu</u> (Dragomir) (Corresponding Author), Materials, 16 (2023) 1-16, doi: 10.3390/ma16051835	Q2	0.511	1 DOI: 10.1016/j.aej.2023.04.042 (Q1)
13.	Effect of Deposition Temperature on the Structure, Mechanical, Electrochemical Evaluation, Degradation Rate and Peptides Adhesion of Mg and Si-Doped Hydroxyapatite Deposited on AZ31B Alloy, A.C. Parau, M. Dinu, C.M. Cotrut, I. Pana, D.M. Vranceanu, L.R. Constantin, G. Serratore, I.M. Marinescu, C. Vitelaru, G. Ambrogio, D.A. Bohner, A.G. Beck-Sickinger, <u>A. Vladescu</u> (Dragomir) (Corresponding Author), Coatings, 13 (2023) 1-18, doi: 10.3390/coatings13030591	Q2	0.439	1 DOI: 10.3390/coatings13061105 (Q2)



14.	Zn doped CaP coatings used for controlling the degradation rate of MgCa1 alloy: in vitro anticorrosive properties, sterilization and bacteria-/cell-material interactions, J. Schmidt, I. Pana, A. Bystrova, M. Dinu, Y. Dekhtyar, C. Vitelaru, M. Gorohovs, I.M. Marinescu, P.Y. Huri, D.G. Tamay, G.A. Juravlea, S. Buyuksungur, A.C. Parau, V. Hasirci, N. Hasirci, <u>A. Vladescu</u> (Corresponding Author), Colloids and Surfaces B: Biointerfaces, 222 (2023) 1-12, doi: 10.1016/j.colsurfb.2022.113087	Q1	0.695	1 DOI: 10.1016/j.jmrt.2023.08.147 (Q1)
15.	Comparison of 316L and Ti6Al4V biomaterial coated by ZrCu-based thin films metallic glasses: structure, morphology, wettability, protein adsorption, corrosion resistance, biomineralization, A.C. Parau, G.A. Juravlea, J. Raczowska, C. Vitelaru, M. Dinu, K. Awsiuk, D.M. Vranceanu, E. Ungureanu, C.M. Cotrut, <u>A. Vladescu</u> (Corresponding Author), Applied Surface Science, 612 (2023) 1-16, doi: 10.1016/j.apsusc.2022.155800	Q1	0.867	4 -DOI: 10.1088/2053-1591/acfd04 (Q3) -DOI: 10.3390/coatings13081346 (Q2) -DOI: 10.1021/acsbiomaterials.3c00183 (Q2) -DOI: 10.1007/s40430-023-04287-7 (Q3)
16.	Influence of Magnesium Content on the Physico-Chemical Properties of Hydroxyapatite Electrochemically Deposited on a Nanostructured	Q2	0.439	3 -DOI: 10.1016/j.jmrt.2023.09.239 (Q1)



	Titanium Surface, C.M. Cotrut, E. Ungureanu, I.C. Ionescu, R.I. Zamfir, A.E. Kiss, A.C. Parau, <u>A. Vladescu</u> , D.M. Vranceanu, A. Saceleanu, Coatings, 12 (2022) 1-25, doi: 10.3390/coatings12081097			-DOI: 10.3390/coatings13101681 (Q2) -DOI: 10.3390/ma16175945 (Q2)
17.	A new generation of highly customized Mg alloy-based implants, G. Serratore, A.Piccininni, L. De Napoli, R. Conte, E.Sabin, A.A.Kaya, C.M.Cotrut, <u>A. Vladescu</u> , A.G. Beck-Sickinger, P.Guglielmi, A. Cusanno, G.Palumbo, M.Tatullo, G. Ambrogio, Procedia CIRP (V CIRP CONFERENCE ON BIOMANUFACTURING), vol. 110 (2022) 247-252, doi: 10.1016/j.procir.2022.06.045	Without IF - Procedia CIRP	-	-
18.	Surface Investigation of Physella Acuta Snail Shell Particle Reinforced Aluminium Matrix Composites, C.I. Pruncu, <u>A. Vladescu</u> , N.R.J. Hynes, R. Sankaranarayanan, Coatings, 12 (2022) 1-15, doi: 10.3390/coatings12060794	Q2	0.439	3 -DOI: 10.3390/polym15183760 (Q1) -DOI: 10.1016/j.jallcom.2023.169508 (Q1) -DOI: 10.3390/coatings12091331 (Q2)
19.	Structural study of W ₂ B obtained via mechanical alloying of W, B ₄ C, TiC and graphite before and after He ions irradiation, D. Neov, L. Slavov, A.A. Donkov, M.N. Mirzayev, E. Popov, E. Demir, K. Siemek, N. Djourellov, V.A. Turchenko, Z.A. Sharipov, P.	Q1	0.852	4 -DOI: 10.1016/j.vacuum.2023.112338 (Q2) -DOI: 10.1016/j.mtener.2023.101295 (Q1)



	Horodek, A.I. Beskrovnyi, A.H. Valizade, O.A. Samedov, <u>A. Vladescu</u> , K. Krezhov, I. Felicia, Nuclear Materials and Energy, 31 (2022) 1-10, doi: 10.1016/j.nme.2022.101201			-DOI: 10.3390/magnetochemistry9040109 (Q2) - DOI: 10.1016/j.radphyschem.2023.110927 (Q1)
20.	Deposition temperature effect on sputtered hydroxyapatite coatings prepared on AZ31B alloy substrate, A.C. Parau, C.M. Cotrut, P. Guglielmi, A. Cusanno, G. Palumbo, M. Dinu, G. Ambrogio, D.M. Vranceanu, <u>A. Vladescu</u> (Corresponding Author), Ceramics International, 48 (2022) 10486-10497, doi: 10.1016/j.ceramint.2021.12.258	Q1	0.590	10 -DOI: 10.1016/j.ceramint.2023.09.087 (Q1) - DOI: 10.3390/coatings13091533 (Q2) - DOI: 10.1142/S0218625X23400127 (Q4) -DOI: 10.1016/j.jma.2023.07.011 (Q1) -DOI: 10.1016/j.corsci.2023.111255 (Q1) - DOI: 10.1016/j.diamond.2023.109812 (Q2) - DOI: 10.1016/j.ijrmhm.2023.106156 (Q1) - DOI: 10.5599/jese.1614 (Q3) - DOI: 10.1093/rb/rbad095 (Q1) - DOI: 10.1016/j.matpr.2022.05.325
21.	Synthesis and Investigation of Antibacterial Activity of Thin Films Based on TiO ₂ -Ag and SiO ₂ -Ag with Potential Applications in Medical Environment, C.S.. Adochite, C. Vitelaru, A.C. Parau, A.E. Kiss, I. Pana, <u>A. Vladescu</u> , S. Costinas, M.	Q1	0.712	5 -DOI: 10.1039/d3tc00473b (Q1) -DOI: 10.1016/j.mtcomm.2022.105234 (Q2) -DOI: 10.1142/S1793292022501041 (Q4)



	Moga, R. Muntean, M. Badea, M. Idomir, <i>Nanomaterials</i> , 12 (2022) 1-11, doi: 10.3390/nano12060902			-DOI: 10.1002/vipr.202200781 (Q4) -DOI: 10.3390/mi13050787 (Q2)
22.	Effects of neutron irradiation at different fluencies on nanosized anatase titanium dioxide, M.N. Mirzayev, L. Slavov, A. Donkov, D. Neov, E. Popov, E. Demir, I. Genov, B. Abdurakhimov, <u>A. Vladescu</u> , S. Biira, T. Karaman, Z. Sharipov, A. Doroshkevich, D. Mirzayeva, I. Mustafayev, H. Mahmudov, M. Belova, F. Mamedov, T. Thang, M. Stef, C. Mita, <i>Radiation Physics and Chemistry</i> , 194 (2022) 1-9, doi: 10.1016/j.radphyschem.2022.109988	Q1	0.386	3 -DOI: 10.1088/1402-4896/ace8d3 (Q2) - DOI: 10.1016/j.vacuum.2023.112338 (Q2) -DOI: 10.1016/j.jallcom.2022.166440 (Q1)
23.	SiC- and Ag-SiC-Doped Hydroxyapatite Coatings Grown Using Magnetron Sputtering on Ti Alloy for Biomedical Application, I. Pana, V. Braic, <u>A. Vladescu</u> , R. Ion, A.C. Parau, N.C. Zoita, M. Dinu, A.E. Kiss, A. Cimpean, M. Braic, <i>Coatings</i> , 12 (2022) 1-24, doi: 10.3390/coatings12020195	Q2	0.439	3 -DOI: 10.1007/s11665-023-08673-z (Q3) -DOI: 10.1016/j.apsusc.2023.157526 (Q1) -DOI: 10.1016/j.surfcoat.2022.128925 (Q1)
24.	Silver-Containing Thin Films on Transparent Polymer Foils for Antimicrobial Applications, C. Vitelaru, A.C. Parau, A.E. Kiss, I. Pana, M. Dinu, L.R. Constantin, <u>A. Vladescu</u> (Corresponding Author), L.E. Tonofrei, C.S. Adochite, S.	Q2	0.439	4 -DOI: 10.1016/j.tifs.2023.03.019 (Q1) -DOI: 10.3390/su15043394 (Q2) -DOI: 10.3390/coatings13020255 (Q2)



	Costinas, L. Rogozea, M. Badea, M.E. Idomir, Coatings,12 (2022) 1-14, doi: 10.3390/coatings12020170			-DOI: 10.3390/coatings12121915 (Q2)
25.	Zn based hydroxyapatite based coatings deposited on a novel FeMoTaTiZr high entropy alloy used for bone implants, M. Codescu, <u>A. Vladescu</u> (Corresponding Author), V. Geanta, I. Voiculescu, I. Pana, M. Dinu, A.E. Kiss, V. Braic, D. Patroi, V.E. Marinescu, M. Iordoc, Surfaces and Interfaces 28 (2022) 1-11, doi: 10.1016/j.surfin.2021.101591	Q1	0.696	9 -DOI: 10.1142/S0218625X23400127 (Q4) -DOI: 10.1016/j.mtcomm.2023.106422 (Q2) -DOI: 10.1007/s00289-023-04794-6 (Q2) -DOI: 10.5599/jese.1614 (Q3) -DOI: 10.1016/j.apsusc.2022.155416 (Q1) -DOI: 10.1021/acsomega.2c02026 (Q2) -DOI: 10.1016/j.jnucmat.2022.153837 (Q1) -DOI: 10.3390/app12104903 (Q2) -DOI: 10.3390/cryst12030335 (Q2)
26.	Electrochemical Surface Biofunctionalization of Titanium through Growth of TiO ₂ Nanotubes and Deposition of Zn Doped Hydroxyapatite, D.M. Vranceanu, E. Ungureanu, I.C. Ionescu, A.C. Parau, A.E. Kiss, <u>A. Vladescu</u> , C.M. Cotrut, Coatings, 12 (2022) 1-16, doi: 10.3390/coatings12010069	Q2	0.439	11 -DOI: 10.1016/j.jmrt.2023.09.239 (Q1) -DOI: 10.1016/j.surfcoat.2023.130017 (Q1) -DOI: 10.1038/s41598-023-38733-2 (Q2) -DOI: 10.1016/j.jmrt.2023.06.065 (Q1) -DOI: 10.1080/00202967.2023.2207334 (Q2)



				<p>-DOI: 10.3390/jfb13040271 (Q2)</p> <p>- DOI; 10.3390/ma15196925 (Q2)</p> <p>-DOI: 10.1002/aoc.6795 (Q1)</p> <p>-DOI: 10.3390/ma15093338 (Q2)</p> <p>-DOI: 10.1116/6.0001801 (Q2)</p> <p>-DOI: 10.1016/j.rechem.2022.100531 (Q2)</p>
27.	<p>Corrosion resistance and cytocompatibility of magnesium-calcium alloys modified with zinc- or gallim-doped calcium phosphate coatings, D.G. Tamay, S. Gokyer, J. Schmidt, <u>A. Vladescu</u> (Corresponding Author), P.Y. Huri, V. Hasirci, N. Hasirci, ACS Applied Materials & Interfaces 14 (2022) 104-122, doi: 10.1021/acsami.1c16307</p>	Q1	1.660	<p>13</p> <p>-DOI; 10.3390/ma16206638 (Q2)</p> <p>-DOI: 10.1016/j.molliq.2023.122985 (Q1)</p> <p>-DOI: 10.1016/j.jma.2023.08.003 (Q1)</p> <p>-DOI: 10.1016/j.jmrt.2023.06.065 (Q1)</p> <p>-DOI: 10.1021/acsbiomaterials.3c00513 (Q2)</p> <p>-DOI: 10.1016/j.colsurfa.2023.131651 (Q2)</p> <p>-DOI: 10.1016/j.corsci.2023.111255 (Q1)</p> <p>-DOI: 10.1016/j.ceramint.2022.12.119 (Q1)</p> <p>-DOI: 10.1016/j.apsusc.2022.156041 (Q1)</p> <p>-DOI: 10.1016/j.pbiomolbio.2022.05.010 (Q2)</p> <p>-DOI: 10.1016/j.molliq.2022.120487 (Q1)</p> <p>-DOI: 10.20964/2022.06.39 (Q4)</p>



				-DOI: 10.3389/fbioe.2022.838842 (Q1)
28.	Synthesis, Characterisation, Photocatalytic Activity, and Aquatic Toxicity Evaluation of TiO ₂ Nanoparticles, L. Andronic, <u>A. Vladescu</u> , A. Enesca, <i>Nanomaterials</i> 11 (2021) 1-14, doi: 10.3390/nano11123197	Q1	0.712	5 -DOI: 10.1007/s13762-023-05292-y (Q3) -DOI: 10.1039/d3ra02109b (Q2) -DOI: 10.3390/su15097336 (Q2) -DOI: 10.1016/j.surfin.2022.102123 (Q1) -DOI: 10.5004/dwt.2022.28419 (Q3)
29.	Effect of deep cryogenic treatment on corrosion behavior of AISI H13 die steel, T. Shinde, C. Pruncu, N.B. Dhokey, A.C. Parau, <u>A. Vladescu</u> (Corresponding Author), <i>Materials</i> 14 (2021) 1-13, doi: 10.3390/ma14247863	Q2	0.511	13 -DOI: 10.1080/00084433.2023.2286144 (Q3) -DOI: 10.3390/coatings13111822 (Q2) -DOI: 10.3390/pr11113239 (Q2) -DOI: 10.1007/s11665-023-08842-0 (Q3) -DOI: 10.1007/s12666-023-03047-4 (Q2) -DOI: 10.1016/j.jallcom.2023.170729 (Q1) -DOI: 10.1080/2374068X.2023.2193789 (Q3) -DOI: 10.1177/09544089231159780 (Q2) -DOI: 10.3390/ma16041592 (Q2) -DOI: 10.3390/ma15196618 (Q2)



				- DOI: 10.1016/j.matchemphys.2022.126802 (Q2) -DOI: 10.1016/j.matchar.2022.112155 (Q1) -DOI: 10.3390/ma15093051 (Q2)
30.	Effect of doping element and electrolyte's pH on the properties of hydroxyapatite coatings obtained by pulsed galvanostatic technique, E. Ungureanu, D.M. Vranceanu, <u>A. Vladescu</u> , A. Parau, M. Tarcolea, C.M. Cotrut, Coatings 11 (2021) 1-15, doi: 10.3390/coatings11121522	Q2	0.439	7 -DOI: 10.1016/j.jmrt.2023.09.239 (Q1) -DOI: 10.1016/j.surfin.2023.103475 (Q1) -DOI: 10.3390/coatings13061091 (Q2) -DOI: 10.1016/j.jmbbm.2023.105719 (Q2) -DOI: 10.1016/j.ceramint.2022.09.164 (Q1) -DOI: 10.1116/6.0001801 (Q2) -DOI: 10.3390/coatings12040539 (Q2)
31.	Corrosion Improvement of 304L Stainless Steel by ZrSiN and ZrSi(N,O) Mono- and Double-Layers Prepared by Reactive Cathodic Arc Evaporation, M. Dinu, A. C. Parau, <u>A. Vladescu</u> , A. E. Kiss, I. Pana, E. S. M. Mouele, L. F. Petrik, V. Braic, Coatings 11 (2021) 1-19, doi: 10.3390/coatings11101257	Q2	0.439	4 -DOI: 10.1016/j.ijrmhm.2023.106105 (Q1) -DOI: 10.3390/coatings13010015 (Q2) -DOI: 10.3390/coatings12091328 (Q2) -DOI: 10.3390/coatings12060754 (Q2)
32.	Zn-Doped CaP-Based Coatings on Ti-6Al-4V and Ti-6Al-7Nb Alloys Prepared by Magnetron Sputtering:	Q2	0.439	14 -DOI 10.1016/j.colsurfb.2023.113634 (Q1)



	<p>Controllable Biodegradation, Bacteriostatic, and Osteogenic Activities, K.A. Prosolov, D.V. Mitrichenko, A.B. Prosolov, O.O. Nikolaeva, V.V. Lastovka, O.A. Belyavskaya, V.A. Chebodaeva, I.A. Glukhov, L.S. Litvinova, V.V. Shupletsova, O.G. Khaziakhmatova, V.V. Malashchenko, K.A. Yurova, E.O. Shunkin, M.A. Fedorov, A.R. Komkov, V.V. Pavlenko, I.I. Anisenya, Y.P. Sharkeev, <u>A. Vladescu</u>, I.A. Khlusov, Coatings 11 (2021) 1-23, doi: 10.3390/coatings11070809</p>			<p>-DOI: 10.1021/acsomega.3c04252 (Q2) -DOI: 10.3390/biomimetics8050444 (Q1) - DOI: 10.3390/coatings13081410 (Q2) -DOI: 10.1016/j.jmrt.2023.06.065 (Q1) -DOI: 10.3390/jfb14050250 (Q2) -DOI: 10.3390/coatings12121941 (Q2) - DOI: 10.3390/ma15196828 (Q2) -DOI: 10.3390/coatings12070942 (Q2) -DOI: 10.3390/ma15134643 (Q2) -DOI: 10.3390/ma15124239 (Q2) -DOI: 10.1016/j.matchar.2022.111782 (Q1) -DOI: 10.3390/pr10020385 (Q2) -DOI: 10.3390/cryst11121519 (Q2)</p>
33.	<p>New Ti-35Nb-7Zr-5Ta Alloy Manufacturing by Electron Beam Melting for Medical Application Followed by High Current Pulsed Electron Beam Treatment, M. Surmeneva, I. Grubova, N. Glukhova, D. Khrapov, A. Koptyug, A. Volkova, Y. Ivanov, C.M. Cotrut, <u>A. Vladescu</u>, A. Teresov, N. Koval, A. Tyurin, R. Surmenev, Metals 11 (2021) 1-21, doi: 10.3390/met11071066</p>	Q2	0.411	<p>15 -DOI: 10.1021/acsomega.3c03157 (Q2) -DOI: 10.1016/j.matchar.2023.112647 (Q1) -DOI: 10.1016/j.jallcom.2022.168099 (Q1) -DOI: 10.1016/j.vacuum.2022.111613 (Q2) -DOI: 10.1016/j.msea.2022.143887 (Q1) -DOI: 10.3390/cryst12091190 (Q2)</p>



				<p>-DOI: 10.3390/met12060934 (Q2)</p> <p>-DOI: 10.1016/j.matdes.2022.110618 (Q1)</p> <p>-DOI: 10.3390/met12020248 (Q2)</p> <p>-DOI: 10.18063/ijb.v8i1.478 (Q1)</p> <p>-DOI: 10.3390/met12010122 (Q2)</p> <p>-DOI: 10.1016/j.addma.2021.102376 (Q1)</p> <p>-DOI: 10.1016/j.msec.2021.112499 (Q1)</p> <p>-DOI: 10.1016/j.msec.2021.112486 (Q1)</p> <p>-DOI: 10.3390/met11081246 (Q2)</p>
34.	<p>Evaluation of surface modification techniques on the ability of apatite formation and corrosion behavior in synthetic body fluid: an in vitro study, C.M. Cotrut, I.C. Ionescu, E. Ungureanu, A. Berbecaru, R.I. Zamfir, <u>A. Vladescu</u>, D.M. Vranceanu, Surfaces and Interfaces 22 (2021) 1-12, doi: 10.1016/j.surfin.2020.100866</p>	Q1	0.696	<p>8</p> <p>-DOI: 10.33263/BRIAC133.255 (Q3)</p> <p>-DOI: 10.1016/j.surfin.2023.102898 (Q1)</p> <p>-DOI: 10.1039/d2nj04485d (Q2)</p> <p>-DOI: 10.2147/IJN.S417929 (Q1)</p> <p>-DOI: 10.1007/s12540-022-01234-4 (Q1)</p> <p>-DOI: 10.1016/j.ceramint.2021.12.156 (Q1)</p> <p>-DOI: 10.1007/s11665-021-06232-y (Q3)</p> <p>-DOI: 10.1016/j.matchar.2021.111161 (Q1)</p>
35.	<p>Characterization of electron beam deposited Nb₂O₅ coatings for biomedical applications, M. Dinu, L. Braic, S.C. Padmanabhan, M.A.</p>	Q2	0.69	<p>20</p> <p>-DOI: 10.3390/ma16216890 (Q2)</p>



	<p>Morris, I. Titorencu, V. Pruna, A. Parau, N. Romanchikova, L.F. Petrik, <u>A. Vladescu</u>, Journal of the Mechanical Behavior of Biomedical Materials, 103 (2020) 1-13, doi: 10.1016/j.jmbbm.2019.103582</p>		<p>-DOI: 10.1007/s42242-023-00250-6 (Q1) -DOI: 10.1016/j.surfcoat.2023.129911 (Q1) -DOI: 10.1007/s11665-023-08655-1 (Q3) -DOI: 10.1093/rb/rbad095 (Q2) -DOI: 10.1088/1748-605X/aca85b (Q2) -DOI: 10.1016/j.ceramint.2022.08.324 (Q1) -DOI: 10.1039/d2ra04907d (Q2) -DOI: 10.1016/j.jallcom.2021.164272 (Q1) -DOI: 10.1021/acsomega.2c00440 (Q2) -DOI: 10.1007/s10904-022-02266-4 (Q2) -DOI: 10.1016/j.colsurfb.2022.112342 (Q1) -DOI: 10.1039/d1dt03116c (Q1) - DOI: 10.1016/j.matpr.2021.01.831(Q1) -DOI: 10.1016/j.apsusc.2021.149739 (Q1) -DOI: 10.1016/j.ijleo.2021.166376 (Q2) -DOI: 10.21577/0100-4042.20170779 (Q4) -DOI: 10.1021/acsomega.0c04948 (Q2)</p>
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				<p>-DOI: 10.1021/acsbiomaterials.0c00472 (Q2) -DOI:10.3390/ma13153284 (Q2)</p>
36.	<p>Extraordinary optical transmission through titanium nitride-coated microsphere lattice, A.M. Gherman, A. Vladescu, A.E. Kiss, C. Farcau, Photonics and Nanostructures - Fundamentals and Applications, 38 (2020) 1-6, doi: 10.1016/j.photonics.2019.100762</p>	Q2	0.38 7	<p>11 -DOI:10.1021/acsanm.3c03050 (Q2) - DOI:10.1016/j.ijthermalsci.2023.108533 (Q1) -DOI:10.1109/JPHOT.2023.3272340 (Q3) -DOI:10.1038/s41598-022-19448-2 (Q1) -DOI:10.1088/2053-1591/ac55c6 (Q3) -DOI:10.1088/1361-6463/ac292d (Q2) -DOI:10.1016/j.mee.2021.111661 (Q3) -DOI:10.1364/OE.439357 (Q1) -DOI:10.1007/s00340-021-07616-7 (Q2) -DOI:10.1021/acsaelm.0c01065 (Q2) -DOI:10.1016/j.optmat.2020.110404 (Q2)</p>
37.	<p>A strategy for alleviating micro arcing during HiPIMS deposition of DLC coatings, C. Vitelaru, A.C. Parau, L.R. Constantin, A.E. Kiss, A. Vladescu, A. Sobetkii, T. Kubart, Materials, 13 (2020) 1-13, doi: 10.3390/ma13051038</p>	Q2	0.51 1	<p>6 -DOI:10.1063/5.0159292 (Q2) -DOI:10.1016/j.diamond.2023.109868 (Q1) -DOI:10.1016/j.ceramint.2022.09.216 (Q1)</p>



				<p>-DOI:10.1007/s00339-021-05229-7 (Q2)</p> <p>-DOI:10.3390/ma14133633 (Q2)</p> <p>-DOI:10.3390/app11104445 (Q2)</p>
38.	<p>Improvement of CoCr alloy characteristics by Ti-based carbonitride coatings used in orthopedic applications, M. Dinu, I. Pana, P. Scripca, I.G. Sandu, C. Vitelaru, <u>A. Vladescu</u> (Corresponding Author), Coatings, 10 (2020) 1-17, doi: 10.3390/coatings10050495</p>	Q2	0.43 9	9 <p>-DOI:10.1590/1517-7076-RMAT-2022-0257 (Q4)</p> <p>-DOI:10.3390/coatings12101511 (Q2)</p> <p>-DOI:10.3390/ma15175968 (Q2)</p> <p>-</p> <p>DOI:10.1016/j.jelechem.2022.116395 (Q1)</p> <p>-DOI:10.3390/gels8050323 (Q1)</p> <p>-DOI:10.3390/ma15093263 (Q2)</p> <p>-DOI:10.3390/ma15020566 (Q2)</p> <p>-DOI: 10.3390/coatings11060619 (Q2)</p> <p>-DOI:10.1016/j.jmbbm.2020.104233 (Q2)</p>
39.	<p>Hydroxyapatite surfaces functionalized with a self-assembling peptide: XPS, RAIRS and NEXAFS study, V. Secchi, S. Franchi, M. Dettin, A. Zamuner, K. Beranova, <u>A. Vladescu</u>, C. Battocchio, V. Graziani, L. Tortora, G. Iucci, Nanomaterials 10 (2020) 1-14, doi: 10.3390/nano10061151</p>	Q1	0.71 2	5 <p>-DOI:10.1016/j.jmbbm.2023.105852 (Q2)</p> <p>-DOI: 10.1021/acs.biomac.2c01262 (Q1)</p> <p>-DOI:10.3390/gels8120789 (Q1)</p> <p>-DOI:10.3389/fchem.2022.1040499 (Q2)</p> <p>-DOI:10.1016/j.microc.2021.106757 (Q1)</p>
40.	<p>In vitro corrosion and tribocorrosion performance of biocompatible</p>	Q2	0.43 9	6



	carbide coatings, I. Pana, A. Vladescu , L.R. Constantin, I.G. Sandu, M. Dinu, C.M. Cotrut, Coatings 10 (2020) 1-16, doi: 10.3390/coatings10070654			-DOI: 10.1007/s11665-023-08590-1 (Q3) -DOI: 10.1016/j.rineng.2023.101138 (Q1) -DOI: 10.1016/j.cis.2022.102747 (Q1) -DOI: 10.1007/s13399-022-02719-3 (Q2) -DOI: 10.3390/gels8050323 (Q1) -DOI: 10.1007/s40544-021-0512-6 (Q1)
41.	Magnesium doped hydroxyapatite-based coatings obtained by pulsed galvanostatic electrochemical deposition with adjustable electrochemical behavior, D.M. Vranceanu, I.C. Ionescu, E. Ungureanu, M.O. Cojocaru, A. Vladescu (Corresponding Author), C.M. Cotrut, Coatings 10 (2020) 1-15, doi: 10.3390/coatings10080727	Q2	0.43 9	18 -DOI: 10.3390/coatings13111940 (Q2) -DOI: 10.1016/j.jmrt.2023.09.239 (Q1) -DOI: 10.3390/coatings13061091 (Q2) -DOI: 10.1080/00202967.2023.2207334 (Q2) -DOI: 10.3390/jfb14050250 (Q2) -DOI: 10.3390/pharmaceutics15041294 (Q1) - DOI: 10.1016/j.ceramint.2022.12.117 (Q1) -DOI: 10.1590/0104-1428.20220121 (Q4) -DOI: 10.1116/6.0001801 (Q2)



				<p>-DOI:10.3390/coatings12040539 (Q2)</p> <p>-DOI:10.1021/acsami.1c16307 (Q1)</p> <p>-</p> <p>DOI:10.1016/j.ceramint.2021.09.311 (Q1)</p> <p>-</p> <p>DOI:10.1016/j.surfcoat.2021.127717 (Q1)</p> <p>-</p> <p>DOI:10.1016/j.ceramint.2021.07.100 (Q1)</p> <p>-DOI: 10.3389/fbioe.2021.705774 (Q1)</p> <p>-DOI:10.3390/coatings11010110 (Q2)</p> <p>-DOI:10.3390/coatings10100992 (Q2)</p>
42.	Effect of calcination time on the physicochemical properties and photocatalytic performance of carbon and nitrogen co-doped TiO ₂ nanoparticles, E.S.M. Mouele, M. Dinu, F. Cummings, O.O. Fatoba, M.T.Z. Myint, H.H. Kyaw, A..C. Parau, <u>A. Vladescu</u> , M.G. Francesconi, S. Pescetelli, A. Di Carlo, A. Agresti, M. Al-Abri, S. Dobretsov, M. Braic, L.F. Petrik, Catalysts 10 (2020) 1-27, doi: 10.3390/catal10080847	Q2	0.71 2	<p>11</p> <p>-</p> <p>DOI:10.1016/j.colsurfa.2023.132600 (Q2)</p> <p>-DOI:10.1016/j.envpol.2023.122788 (Q1)</p> <p>-DOI:10.1016/j.cej.2023.146434 (Q1)</p> <p>DOI:10.1016/j.jallcom.2023.169585 (Q1)</p> <p>-DOI:10.3390/cryst12111629 (Q2)</p> <p>DOI:10.1080/01411594.2022.2107927 (Q3)</p>



				<p>-DOI: 10.1016/j.jece.2022.107910 (Q1)</p> <p>-DOI: 10.1016/j.hazadv.2022.100051</p> <p>-DOI: 10.3390/catal11080904 (Q2)</p> <p>-DOI: 10.1016/j.jece.2021.105758 (Q1)</p> <p>-</p> <p>DOI: 10.1016/j.colsurfa.2021.126629 (Q2)</p>
43.	Tribological properties of alloyed TiSi-stainless steel carbide coatings deposited by reactive cathodic arc method, M Braic, <u>A. Vladescu</u> (Corresponding Author), A. Parau, C.I. Pruncu, V. Braic, Wear 460-461 (2020) 1-10, doi: 10.1016/j.wear.2020.203456	Q1	0.77 7	1 -DOI: 10.1117/12.2605753 (-)
44.	Anticorrosion coated stainless steel as durable support for C-N-TiO ₂ photo catalyst layer, E.S.M. Mouele, M. Dinu, A.C. Parau, <u>A. Vladescu</u> , M.T.Z. Myint, H.H. Kyaw, J. Sabahi, M. Al-Abri, S. Dobretsov, M.A.A. Belushi, R. Al-Mamari, M. Braic, L.F. Petrik, Materials 13 (2020) 1-27, doi: 10.3390/ma13194426	Q2	0.51 1	1 -DOI: 10.1016/j.cattod.2021.04.023 (Q1)
45.	Spin coating immobilisation of C-N-TiO ₂ co-doped nano catalyst on glass and application for photocatalysis or as electron transporting layer for perovskite	Q2	0.43 9	7 -DOI: 10.3390/coatings13081472 (Q2) -DOI: 10.1016/j.optmat.2023.113501 (Q2)



	<p>solar cells, E.S.M. Mouele, S. Ngqoloda, S. Pescetelli, A. Di Carlo, M. Dinu, <u>A. Vladescu</u>, A.C. Parau, A. Agresti, M. Braic, C.J. Arendse, L.F. Petrik, <i>Coatings</i> 10 (2020) 1-24, doi: 10.3390/coatings10111029</p>			<p>-DOI: 10.3390/ma15155216 (Q2) -DOI: 10.1016/j.molliq.2022.119632 (Q1) -DOI: 10.1007/s10904-022-02227-x (Q2) -DOI: 10.1016/j.jece.2021.105758 (Q1) -DOI: 10.3390/coatings10121208 (Q2)</p>
46.	<p>Influence of Ti, Zr or Nb carbide adhesion layers on the adhesion, corrosion resistance and cell proliferation of titania doped hydroxyapatite to the Ti6Al4V alloy substrate, utilizable for orthopaedic implants, <u>A. Vladescu</u>, V. Pruna, S. Kulesza, V. Braic, I. Titorencu, M. Bramowicz, A. Gozdziejewska, A. Parau, C. M. Cotrut, I. Pana, M. Dinu, M. Braic, <i>Ceramics International</i>, 45 (2019) 1710-1723, doi: 10.1016/j.ceramint.2018.10.053</p>	Q1	0.47 8	<p>18 -DOI: 10.3390/ma16155320 (Q2) - DOI: 10.1016/j.ceramint.2022.12.117 (Q1) -DOI: 10.1016/j.jallcom.2022.168489 (Q1) -DOI: 10.3390/mi13111992 (Q2) -DOI: 10.1149/2162-8777/aca1dd (Q3) -DOI: 10.1007/s10856-022-06691-2 (Q2) -DOI: 10.1002/adem.202200965 (Q2) - DOI: 10.1016/j.surfcoat.2022.128310 (Q1) -DOI: 10.1016/j.ceramint.2021.11.134 (Q1) -DOI: 10.1039/d1ma00733e (Q2) -DOI: 10.3390/ma14216328 (Q2) -DOI: 10.1007/s43452-021-00297-1 (Q1)</p>



				<p>-DOI:10.1016/j.ceramint.2021.03.333 (Q1)</p> <p>-DOI:10.1080/10408436.2021.1886044 (Q1)</p> <p>-DOI:10.1016/j.ceramint.2020.09.274 (Q1)</p> <p>-DOI:10.3390/coatings10070654 (Q2)</p> <p>-DOI:10.1016/j.jmbbm.2019.103582 (Q2)</p> <p>-DOI:10.1016/j.jmrt.2019.06.006 (Q1)</p>
47.	Corrosion and tribological behaviour in a 3.5% NaCl solution of vacuum arc deposited ZrCN and Zr-Cr-Si-C-N coatings, L.R. Constantin, A.C. Parau, M. Balaceanu, M. Dinu, <u>A. Vladescu</u> (Corresponding Author), Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 233 (2019) 158-169, - doi: 10.1177/1350650118774132	Q3	0,29 0	4 - DOI: 10.1016/j.ceramint.2021.05.292 (Q1) -DOI: 10.3390/coatings10070654 (Q1) -DOI: 10.3390/coatings10050495 (Q2) -DOI: 10.1002/maco.202011500 (Q3)
48.	In vitro evaluation of Ag doped hydroxyapatite coatings in acellular media, D.M. Vranceanu, A.C. Parau, C.M. Cotrut, A.E. Kiss, L.R. Constantin, V. Braic, <u>A. Vladescu</u> , Ceramics International, 45 (2019) 11050-11061,	Q1	0,59 0	24 -DOI: 10.1002/adhm.202300932 (Q1) -DOI: 10.1007/s00289-023-04761-1 (Q2) -DOI: 10.1016/j.ceramint.2022.12.119 (Q1) -DOI: 10.3390/coatings13030591 (Q2)



	<p>doi: 10.1016/j.ceramint.2019.02.19</p> <p>1</p>		<p>-DOI: 10.3390/coatings13020409 (Q2)</p> <p>-DOI: 10.3390/coatings13020472 (Q2)</p> <p>-DOI: 10.1016/j.surfcoat.2023.129249 (Q1)</p> <p>-DOI: 10.3389/fchem.2022.1051678 (Q2)</p> <p>-DOI: 10.1016/j.ceramint.2022.08.064 (Q1)</p> <p>-DOI: 10.4028/p-6b2uc3 (Q4)</p> <p>-DOI: 10.1016/j.surfcoat.2021.127628 (Q1)</p> <p>-DOI: 10.1016/j.mtcomm.2021.102520 (Q2)</p> <p>-DOI: 10.1016/j.ceramint.2020.09.213 (Q1)</p> <p>-DOI: 10.1016/j.ceramint.2020.09.274 (Q1)</p> <p>-DOI: 10.1016/j.ceramint.2020.10.112 (Q1)</p> <p>-DOI: 10.1016/j.msec.2020.111777 (Q1)</p> <p>-DOI: 10.3390/coatings11010110 (Q2)</p> <p>-DOI: 10.1016/j.matchemphys.2020.123511 (Q2)</p> <p>-DOI: 10.1016/j.apsusc.2020.146069 (Q1)</p> <p>-DOI: 10.1016/j.ceramint.2020.01.007 (Q1)</p>
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				<p>-DOI:10.1016/j.ceramint.2019.08.291 (Q1)</p> <p>-DOI:10.3390/met9121332 (Q2)</p> <p>-DOI:10.1016/j.tsf.2019.137463 (Q3)</p> <p>-DOI:10.1002/maco.201810762 (Q3)</p>
49.	<p>Multifunctional Ti based carbonitride coatings for applications in severe environments, C.I. Pruncu, <u>A. Vladescu</u> (Corresponding Author), A.C. Parau, M. Braic, K.D. Dearn, L.R. Constantin, V. Braic, Thin Solid Films, 682 (2019) 63-75, doi: 10.1016/j.tsf.2019.04.052</p>	Q3	0.31 6	<p>4</p> <p>-</p> <p>DOI:10.1016/j.ceramint.2022.03.214 (Q1)</p> <p>-DOI:10.1007/s11665-022-06945-8 (Q3)</p> <p>-DOI:10.1140/epjp/s13360-022-02587-w (Q2)</p> <p>-DOI:10.1116/6.0001228 (Q2)</p>
50.	<p>In vitro activity assays of sputtered HAp coatings with SiC addition in various simulated biological fluids, <u>A. Vladescu</u>, A. Parau, I. Pana, C.M. Cotrut, L.R. Constantin, V. Braic, D.M. Vranceanu, Coatings, 9 (2019) 1-17, doi: 10.3390/coatings9060389</p>	Q2	0.43 9	<p>13</p> <p>-DOI:10.1016/j.jallcom.2023.170343 (Q1)</p> <p>-DOI:10.1016/j.bioadv.2023.213435</p> <p>-DOI:10.3390/coatings13020409 (Q2)</p> <p>-DOI:10.3390/coatings13020472 (Q2)</p> <p>-DOI:10.1016/j.tsf.2022.139489 (Q3)</p> <p>-DOI:10.3390/ma15093100 (Q2)</p> <p>-DOI:10.3390/ma14237185 (Q2)</p> <p>-DOI:10.3390/polym13040618 (Q1)</p> <p>-</p> <p>DOI:10.1016/j.ceramint.2020.09.274 (Q1)</p> <p>-DOI:10.3390/coatings11010110 (Q2)</p> <p>-DOI:10.3390/coatings9120781 (Q2)</p>



				-DOI: 10.3390/met9121332 (Q2) -DOI: 10.3390/coatings9100671 (Q2)
51.	Investigation of cast and annealed Ti25Nb10Zr alloy as material for orthopedic devices, R. Bolmaro, A.C. Parau, V. Pruna, M.A. Surmeneva, L.R. Constantin, M. Avalos, C.M. Cotrut, R. Tutuianu, M. Braic, D.V. Cojocaru, I. Dan, S. Croitoru, R.A. Surmenev, <u>A. Vladescu</u> (Corresponding Author), Journal of Material Research and Technology, 8 (2019) 3399-3414, doi: 10.1016/j.jmrt.2019.06.006	Q1	0.79 1	5 -DOI: 10.1016/j.jmrt.2022.11.167 (Q1) -DOI: 10.1021/acsomega.2c02096 (Q2) -DOI: 10.1021/acsbmaterials.1c01370 (Q2) -DOI: 10.1007/s10853-022-06984-5 (Q2) -DOI: 10.1016/j.jmrt.2019.10.051 (Q1)
52.	The effect of hybrid coatings based on hydrogel, biopolymer and inorganic component on the corrosion behavior of titanium bone implants, M. Saveleva, <u>A. Vladescu</u> , C.M. Cotrut, L. Van der Meeren, M. Surmeneva, R. Surmenev, B. Parakhonskiy, A. Skirtach, Journal of Materials Chemistry B, (2019), doi: 10.1039/C9TB01287G	Q1	0.90 9	15 -DOI: 10.1016/j.surfcoat.2023.130159 (Q1) -DOI: 10.3390/ijms241713135 (Q1) -DOI: 10.1007/s13399-023-04163-3 (Q2) -DOI: 10.1039/d2ma00956k (Q2) -DOI: 10.3390/antibiotics11121719 (Q1) -DOI: 10.3390/life12091387 (Q2) -DOI: 10.3390/coatings12020245 (Q2) -DOI: 10.1007/s00339-021-04542-5 (Q2) -DOI: 10.1116/6.0000876 (Q3) -DOI: 10.3390/polym13040530 (Q1) -DOI: 10.1016/j.jcis.2020.07.088 (Q1)



				<p>-DOI: 10.1002/mame.202000308 (Q2)</p> <p>-</p> <p>DOI: 10.1016/j.surfcoat.2020.125727 (Q1)</p> <p>-DOI: 10.1016/j.microc.2020.104713 (Q1)</p> <p>-DOI: 10.3390/polym12030620 (Q1)</p>
53.	<p>Tunability of CuOx properties by gas flow rate control in the reactive DC magnetron sputtering, C. Vitelaru, I. Pana, A.E. Kiss, N.C. Zoita, <u>A. Vladescu</u>, M. Braic, Journal of Optoelectronics and Advanced Materials, 21 (2019) 717-725, WOS:000512350200011.</p>	Q4	0.05 3	<p>3</p> <p>-DOI: 10.1007/s40042-022-00596-7 (Q4)</p> <p>-DOI: 10.1016/j.optlastec.2022.108063 (Q1)</p> <p>-DOI: 10.1590/1980-5373-MR-2020-0275 (Q4)</p>
54.	<p>Tribological Performance of Coatings Obtained by PVD Techniques: From Industrial to Biological Applications, M. Dinu, I. Pana, A.C. Parau, <u>A. Vladescu (Corresponding Author)</u>, <i>Handbook of Research on Tribology in Coatings and Surface Treatment, edited by Amirhossein Pakseresht and Omid Sharifahmadian</i>, IGI Global, 2022, pp. 196-217. doi: 10.4018/978-1-7998-9683-8.ch009</p>	Chapter book		<p>IGI Global, 2022, pp. 196-217, ISBN: 9781799896838</p>
55.	<p>Nanomaterials for medical application and their antimicrobial advantages, <u>A. Vladescu</u>, M. Badea, S.C. Padmanabhan, G. Paraschiv, L.</p>	Chapter book		<p>Elsevier, 2019, pp. 409-430, ISBN: 9780128184356</p>



	<p>Floroian, L. Gaman, M.A. Morris, J.L. Marty, C.M. Cotrut, <i>Materials for biomedical engineering, Bioactive Materials for Antimicrobial, Anticancer, and Gene Therapy</i>, Editor: A.M. Holban, A. Grumezescu, Elsevier, 2019, pp. 409-430, ISBN: 9780128184356, doi: 10.1016/B978-0-12-818435-6.00015-3</p>			
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8. Project leader in academic grants and amount of them

International projects:

<i>Project</i>	<i>Team</i>	<i>Amount (euro)</i>	<i>Link</i>
<p><i>M-EraNet-HardCoat</i> (2022-2024) -collaboration with SMEs</p>	<p>Leader of INOE – Alina Vladescu (Dragomir) - 16 people – INOE team</p>	<p>110 000</p>	<p>https://hardcoat.inoe.ro</p>
<p><i>M-EraNet-ISIDE</i> (2020-2023) -collaboration with SMEs</p>	<p>Leader of INOE – Alina Vladescu (Dragomir) -16 people – INOE team</p>	<p>135 000</p>	<p>https://iside.inoe.ro</p>
<p><i>RusPLUS Coatdegrabac</i> (2018-2021) -collaboration with SMEs</p>	<p>Project Leader of international consortium (7 partners) – Alina Vladescu (Dragomir)</p>	<p>182 768</p>	<p>https://coatdegrabac.inoe.ro</p>



	-12 people – INOE team		
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National Projects:

<i>Project</i>	<i>Team</i>	<i>Amount (euro)</i>	<i>Link</i>
<u>Coat4Bio – PCE95</u> (2021-2023) – frontier research	<i>Project Leader</i> Alina Vladescu (Dragomir) - 8 people – INOE team	239 606	https://coatbio.inoe.ro
BioMimCells-621 PED (2022-2024)	Leader of INOE – Alina Vladescu (Dragomir) -13 people– INOE team	58 000	https://www.biomimcells.eu
<u>Medicalmetmat</u> (2018-2020) – larger partnership between research and SMEs	Leader of INOE – Alina Vladescu (Dragomir) -13 people– INOE team	78 026	http://medicalmetmat.tuiasi.ro
<u>Degracoat</u> (2017-2018) – small partnership	Leader of INOE – Alina Vladescu (Dragomir) -8 people– INOE team	58 000	http://www.degracoat.eu

**9.List of patents (accepted /pending)****Accepted patents:**

All patents are available here: <https://worldwide.espacenet.com/patent/search?q=vladescu>

1. [RO133781 \(B1\)/2023](#), Process for controllable silver-doping of thin hydroxyapatite layers obtained by magnetron sputtering method, M. Braic, A. Vladescu, V. Braic
2. [RO133549 \(B1\)/2023](#), Enhancing orthopaedic implant bioactivity by coating the same with doped hydroxyapatite, A. Vladescu, D.M. Vranceanu, C.M. Cotrut, A.C. Parau, L.R. Constantin
3. [RO133549 \(B1\)/2023](#), Enhancing orthopaedic implant bioactivity by coating the same with doped hydroxyapatite, A. Vladescu, D.M. Vranceanu, C.M. Cotrut, A.C. Parau, L.R. Constantin
4. [RO131879 \(B1\)/2021](#), Nanostructured multicomponent thin layers based on zirconium carbide with silicon and transition metal addition, resistant to wear and corrosion. M. Balaceanu, A. Vladescu, A.C. Parau
5. [RO132594 \(B1\)/2021](#), Coating magnesium alloys with bioactive layers for medical applications, A. Vladescu, C.M. Cotrut, A.E.Kiss, M.Braic, I.D.Titorencu, V.Braic
6. [RO131792 \(B1\)/2021](#), Bio-compatible thin layers for coating dental implants made of titanium alloys, M. Braic, M.Balaceanu, V.Braic, A. Vladescu
7. [RO130253 \(B1\)/2020](#), Thin layers meant to improve ceramic-to-metal adherence in prosthetic dental restoration, A. Vladescu, C. Vitelaru, C.M. Cotrut, M. Braic, M. Tarcolea

Patent applications (under evaluation):

Title	Authors	No. of application/year
Technology for Obtaining Hard Carbon Coatings on Metal Parts Using High-Power Pulsed Plasma Spraying Processes with Ti-Based Interface Layers	C.Vitelaru, A.C.Parau, A.E.Kiss, <u>A. Vladescu</u> , A.Sobetkii, A.Sobetkii, M.Visan	A/00274/26.07.2019
Biodegradable and Antibacterial Orthopedic Implants with Controlled Degradation Capacity	<u>A. Vladescu</u> , A.Kiss, M.Braic	A/00700/31.10.2019
		A/00120/04.03.2020



Nanostructured Thin Film Materials for Industrial and Medical Applications	<u>A.Vladescu</u> , A.C. Parau, C. Vitelaru, I. Pana, L.R. Constantin	
Antibacterial Hydroxyapatite Bioactive Materials	<u>A.Vladescu</u> , M.Braic, A.E.Kiss	A/00700/14.01.2019
Biodegradable Hydroxyapatite-Based Materials for Controlling the Degradation Rate of Magnesium-Based Alloys	<u>A.Vladescu</u> , A.C. Parau, C.M. Cotrut, D.M. Vranceanu, A.E. Kiss	A/00667/08.11.2021
Multilayer Thin Film with Adherent and Corrosion-Resistant Architecture for Covering Vertebral Disc Implants	M.Braic, V.Braic, <u>A.Vladescu</u> , M.Dinu, I.Pana, L.R.Constantin, A.C. Parau	A/00727/03.12.2021
Nanostructured monolayers based on carbo-nitrides of transition metals with small addition of silicon resistant to wear	S.Dragomir, <u>A.Vladescu</u> , L.R.Constantin, D.M.Vranceanu, C.P.Dragomir, A.C.Parau	A/00605/04.10.2022
Biocompatible Materials in the Form of Thin Layers Based on Metallic Glasses Used in Orthopedics	<u>A.Vladescu</u> , A.C.Parau, C.Vitelaru, L.R.Constantin, I.Pana, M.Dinu	A/00544/07.09.2022
Transparent Thin Layers with Antibacterial Properties, Based on Silver, Obtained by Physical Vapor Deposition Methods on Flexible and Transparent Polymeric Substrate	C.Vitelaru, I.Pana, A.C. Parau, <u>A.Vladescu</u> (Dragomir), A.E. Kiss, L.R.Constantin, M.Dinu, M. Badea, S.C.Adochite, M.E.Idomir, L.Floroian, L.E.Tonofrei	A00674/25.10.2022
Transparent Thin Layers Based on Copper in Multilayer	C. Vitelaru, I. Pana, A.C. Parau, M. Dinu, <u>A.Vladescu</u> , A.E. Kiss	A/00543/07.09.2022



Structure with Heat-Reflecting Properties		
Multilayered coatings for protecting of cutting tools which work in server wear regimes used in woodworking tools	<u>A. Vladescu</u> (Dragomir), A.C. Pârâu, D.M. Vrânceanu, M.Dinu, L.R. Constantin, C.Vițelaru	A/00093/28.02.2023
Biomimetic coatings based on bioactive ceramics for medical implants made of titanium	D.M. Vrânceanu, I.Titorencu, <u>A. Vladescu</u> (Dragomir), E. Ungureanu, V.Pruna, A.C. Pârâu, C.M. Cotrut	A/00760/28.11.2023

Date: 20.01.2024

Signature

Alina Vladescu (Dragomir)