În atenția Ministerului Cercetării Inovării și Digitalizării din România

Cerere

Subsemnata Dr. Ing. Adelina-Carmen Ianculescu, profesor la Universitatea Națională de Știință și Tehnologie Politehnica București, Facultatea de Inginerie Chimică și Biotehnologii, prin prezenta solicit înscrierea în cadrul competiției "Gala Cercetării Românești" - Ediția 2024, domeniul Chimie.

31.01.2024

Prof. Dr. Ing. Adelina-Carmen Ianculescu

[Semnătură]
Condiții de eligibilitate îndeplinite pentru etapa de selectare

A. Lucrări în calitate de autor principal sau coautor încadrat cu tipul de document article, publicate în reviste indexate Web of Science JCR cuarta Q1 conform AIS (se ia în considerare ultima clasificare disponibilă în raport cu anul depunerii cererii)

- 24 lucrări în calitate de autor principal sau coautor încadrat cu tipul de document article, publicate în reviste indexate Web of Science JCR cuarta Q1 conform AIS în perioada 2014 - 2023 (11 lucrări Q1 în ultimii 5 ani: 2019 - 2023)


B. 4 Proiecte de cercetare naționale și internaționale, câștigate prin competiție, cu valoare de minimum 100.000 euro fiecare și echipă de minimum 3 membri, în calitate de director/conducător de proiect

4 proiecte de cercetare, câștigate prin competiție, în calitate de director/conducător de proiect


2. Size effects, phase formation mechanisms, and properties relations in micro- and nanostructured perovskite ferroic systems prepared by alternative routes (Efekte dimensionale, mecanisme de formare și proprietăți în sisteme perovskitice ferotice micro și nanostructurate, preparate prin metode alternative) – FEROMAT, Proiect PN-II-ID-PCE-2011-3-0668 (2011-2016), contract nr. 92/05.10.2011 – 309 962 EUR - director


C. Calitatea de cercetător/cadru didactic invitat la universități de prestigiu din străinătate


- Associated Senior Scientist (poste rouge CNRS), Centre Interuniversitaire de Recherche et d'Ingénierie des Matériaux (CIRIMAT) - UMR 5085, Laboratoire: Oxydes à valence mixte (OVM), 118 Route de Narbonne 31062, Paul Sabatier – Toulouse III University, https://cirimat.cnrs.fr/, Toulouse, France (March 1, 2002 – April 1, 2003).

- Profesor invitat, Université de Limoges, 33 rue François Mitterrand, BP 23204, 87032 Limoges, France (October, 2005) – 4 lecții invitate.
CURRICULUM VITAE

IANCULESCU ADELINA – CARMEN

National University of Science and Technology
"Politehnica" Bucharest

A. Personal information:

Name: Adelina-Carmen Ianculescu;

Birth date: September 2, 1963, Ploiești / Prahova;

E-mail: 

Mobile phone: 

Languages: English, French and German.

B. Education (degrees and diplomas):

<table>
<thead>
<tr>
<th>Institution and location</th>
<th>Year</th>
<th>Degree</th>
<th>Training area</th>
</tr>
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<tbody>
<tr>
<td>- University “Politehnica” of Bucharest (UPB), Faculty of Industrial Chemistry</td>
<td>1997</td>
<td>PhD</td>
<td>Chemical Engineering / High-Permittivity Dielectric Ceramics</td>
</tr>
<tr>
<td>- University “Politehnica” of Bucharest, Faculty of Industrial Chemistry, Department of Oxide Materials Science and Engineering</td>
<td>1987</td>
<td>MD; Pedagogy specialization(certificate)</td>
<td>Solid State Chemistry / Technology of Silicates and Oxide Compounds</td>
</tr>
<tr>
<td>- High School no.18 of Bucharest</td>
<td>1982</td>
<td>Baccalaureate</td>
<td>Mathematics – Physics</td>
</tr>
</tbody>
</table>
### C. Professional experience and jobs:

<table>
<thead>
<tr>
<th>Period</th>
<th>Function</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-present</td>
<td>Full Professor / PhD coordinator (Habil.)</td>
<td>Department of Science &amp; Engineering of Oxide Materials and Nanomaterials, Faculty of Chemical Engineering and Biotechnologies, National University of Science and Technology &quot;Politehnica&quot; Bucharest</td>
</tr>
<tr>
<td>2008-present</td>
<td>Full Professor</td>
<td>Inter-University Research and Engineering Centre on Materials (C.I.R.I.M.A.T.) – UMR 5085</td>
</tr>
<tr>
<td>2004-2008</td>
<td>Associate Professor</td>
<td>Faculty of Science and Engineering - Department of Chemistry–Toulouse III, France</td>
</tr>
<tr>
<td>March 1, 2002-March 31, 2003 (13 months)</td>
<td>Associated Senior Researcher (poste rouge CNRS)</td>
<td>Laboratory of Plasma and Energy Conversion (former Laboratory of Electrical Engineering) – UMR 5213, Paul Sabatier University – Toulouse III, France</td>
</tr>
<tr>
<td>February 1, 2002-February 28, 2002</td>
<td>Visiting Professor</td>
<td></td>
</tr>
<tr>
<td>February 1, 2001-January 31, 2002 (12 months)</td>
<td>Associated Senior Researcher (poste rouge CNRS)</td>
<td></td>
</tr>
<tr>
<td>2000-2001; 2003-2004</td>
<td>Lecturer</td>
<td>Department of Science &amp; Engineering of Oxide Materials and Nanomaterials, Faculty of Applied Chemistry and Materials Science, &quot;Politehnica&quot; University of Bucharest</td>
</tr>
<tr>
<td>1994-2000</td>
<td>Senior Researcher</td>
<td>&quot;IlieMurgulescu&quot; Institute of Physical Chemistry of the Romanian Academy, Bucharest, Romania</td>
</tr>
<tr>
<td>1990-1994</td>
<td>Scientific Researcher</td>
<td></td>
</tr>
<tr>
<td>1987-1990</td>
<td>Engineer in Chemistry</td>
<td>Special Steels Factory, Târgovişte, Romania</td>
</tr>
</tbody>
</table>
D. Significant scientific achievements:

The scientific activity and the area of expertise of the candidate, Prof. Adelina-Carmen Ianculescu is focused on two main research directions, related to the field of advanced multifunctional, micro- and nanostructured oxide materials, *i.e.*: (a) oxides with electrical and magnetic properties, belonging to the class generically called "electroceramics", with applications in microelectronics, optoelectronics and spintronics and (b) environmentally friendly oxide catalysts and pigments. The main achievements of the candidate can be split in two categories, as described below:

1) Starting with the PhD thesis entitled "Dielectric ceramics of type $M^{II} - M^{IV} - O$ with high permittivity", 1997), the topics of interest from the point of view of fundamental research, the addressed studies have been related to: (i) physico-chemical processes and formation mechanisms in oxide compounds; (ii) phase equilibria and defect chemistry in oxides; (iii) phase transitions and grain boundary phenomena; (iv)

More recently, in the context of the requirements for identifying new, environmentally-friendly perovskites for micro/nano/optoelectronics applications, the formation by solid state reactions of some lead-free ferroelectric and multiferroic perovskite solid solutions as: (a) Ba(Ti,Zr)O$_3$ (*Monograph: "Ba(Ti,Zr)O$_3$ - Functional Materials: From Nanopowders to Bulk Ceramics", NovaScience Publishers Inc, USA, 2010), (b) Ba(Ti,Sn)O$_3$ (*J. Eur. Ceram. Soc., 34 (2014), 3661 - Q1), (c) Bi(Fe,Mn)O$_3$ (*J. Alloys Compd., 504 (2010), 420 - Q1) and (d) (1-x)BiFeO$_3$-xBaTiO$_3$ (*Patent RO123236-B1, 2011, "Preparation procedure by ceramic technology of high-purity BiFeO$_3$-BaTiO$_3$ solid solutions with low dielectric losses and room-temperature ferromagnetic characteristics"; *J. Alloy Compd., 506 (2010), 862 - Q1) was a priority topic of the candidate's research activity. For the point of view of the aliovalently-doped BaTiO$_3$, the impact determined by the donor doping level on the defect chemistry, microstructural features, grain-boundary phenomena, phase transitions and functional properties was also analyzed in detail (*Mater. Charact., 106 (2015), 195 - Q1; *J. Alloy Compd., 509 (2011), 10040 - Q1). Through these studies, the candidate
imposed a significant paradigm shift. Earlier, it was considered that lightly (concentration < 0.5 at. %) donor-doped BaTiO$_3$ with La$^{3+}$ or other rare earth species on Ba$^{2+}$ sites results in a semiconducting behaviour. However, it was found that even for such low donor dopant concentrations, by tailoring the sintering strategy, coarse-grained RE-doped BaTiO$_3$ ceramics can show not only insulating properties, but they can also exhibit high tunability behaviour. This finding generated high citing degree of the work which presented these results in very prestigious AIS-quoted journals (Chemical Review - I.F. = 62.1; AIS = 17.133; Nature Communications - I.F. = 16.6; AIS = 5.767, etc.), as one can see below, in the section "Relevant citations".


(2) Regarding the applied research, notable results have been obtained towards the design and characterization by various and complementary investigation techniques of nanostructured ferroic perovskite systems (nanopowders, nanowires, nanoshell tubes, thin/thick films), as well as micro-, meso- and nano-structured bulk ceramics.

Starting with the research activity carried out as associate senior researcher (CNRS research position offered by the French state through recruitment) in two different laboratories of the University Paul Sabatier - Toulouse III, France (2001-2003), the candidate approached a new research direction, aiming the study of the structural and functional properties in undoped barium titanate products with confined geometry, as nanoparticles (• J. Electroceram., 24 (2010), 46), thin films (• J. Eur. Ceram. Soc., 27 (2007), 1129 - Q1; • Appl. Surf. Sci., 253 (2006), 344 - Q1) and thick layers (• Proc. Appl. Ceram., 3(2009), 65), respectively. It was found that the crystallinity, size, shape and aggregation tendency of the molecular/polymeric precursor particles prepared by wet-chemical routes governed not only the type of intermediates and physico-chemical processes which occur during the thermal decomposition, but also the characteristics (crystal structure, size, morphology, porosity and surface state) of the final ceramic BaTiO$_3$ nanopowders. The interesting data reported
about the influence of the preparation route and synthesis parameters on the morphological characteristics of undoped BaTiO₃ nanoparticles obtained by alternative wet-chemical methods (● J. Electroceram., 24 (2010), 46) resulted in subsequent citations in highly AIS-quoted journals as Chemical Society Reviews - I.F. = 46.2; AIS = 12.008 (see section "Relevant citations"). Besides, an innovative approach, consisting in successive cycles of rf-magnetron sputtering deposition – thermal treatment, as well as of tape-casting deposition – annealing – sintering, was proposed, in order to enhance ferroelectricity and to improve the dielectric behaviour by minimizing dielectric loss and leakage currents, as a result of both the high densification and grain size gradient in cross-section of multi-layered BaTiO₃ thin films (● J. Eur. Ceram. Soc., 27 (2007), 1129 - Q1; ● Appl. Surf. Sci., 253 (2006), 344 - Q1) used in non-volatile memories and thick films used as passive components for high power filters, respectively (● Proc. Appl. Ceram., 3 (2009), 65). An extensive study regarding the effect of grain size decrease of the functional properties of the undoped bulk BaTiO₃ceramics (● J. Am. Ceram. Soc., 95 (2012), 3912 - Q1) attracted attention and enjoyed appreciation in the scientific community, being followed by citations in prestigious journals (Progress in Materials Science - I.F. = 37.4; AIS = 8.318; Advanced Functional Materials - I.F. = 19.0; AIS = 3.987; Advanced Science - I.F. = 15.1, AIS = 3.548; Review of Materials Research - I.F. = 9.7; AIS = 4.297, etc. - see section "Relevant citations").

Another “hot” and challenging fundamental topic addressed by the candidate refers to the key-role played by the "size effects" and restrictive geometry in homo- / aliovalently-doped bulk BaTiO₃ ceramics (● J. Eur. Ceram. Soc., 43 (2023), 3250 - Q1; ● Nanomaterials, 9 (2019), 1675), when downscaling grain size from micro- to toward nanometre range.

Significant contributions are associated to: (i) the synthesis of ferroelectric doped-BaTiO₃ and multiferroic doped-BiFeO₃ nanoparticles by various "soft" chemistry methods as: different variants of the sol-gel method, the modified Pechini procedure, co-precipitation, hydrothermal method, combustion route and the comparative study of their morpho-structural characteristics and (ii) the elaboration by template-mediated colloidal chemistry of 1D nanostructures with enhanced piezoelectric and ferroelectric activity. RE-doped BaTiO₃ (RE = La³⁺, Ce³⁺) nanopowders (● J. Alloy Compd., 509 (2011), 10040 - Q1; ● Mater. Charact., 106 (2015), 195 - Q1; ● Nanomaterials, 9 (2019), 1675), nanowires, nanoshell tubes and multiscale-structured bulk ceramics (● J. Eur. Ceram. Soc., 36 (2016), 1633 - Q1; ● Romanian patent no. RO33773-B1, 2021,
"Preparation of unidimensional trivalent-cerium-doped BaTiO$_3$ nanostructures, with ferroelectric and piezoelectric properties; *Nanomaterials, 9 (2019), 1675.), were obtained and extensively investigated. The candidate extended her research area towards the electric, magnetic and optical properties induced by RE-doping in another lead-free perovskite, *i.e.* BiFeO$_3$ systems, as in the case of. *Eu$^{3+}$*-doped BiFeO$_3$ nanopowders (*Nanomaterials, 9 (2019), 1465).

Further, the candidate's efforts were dedicated to find suitable approaches to tailor the electrical (dielectric/semiconducting, ferroelectric/relaxor, pyroelectric, piezoelectric) behaviour of the multiscale-structured doped-barium titanate ceramics derived from wet-chemically prepared nanopowders, by an appropriate compositional design and, especially, by controlling and tuning microstructure, using alternative sintering strategies and optimized conditions. *From this point of view, the candidate reported original results and innovative approaches, which reveal the advantages of the spark plasma sintering (SPS) technique in producing nanocrystalline ferroic ceramics, secondary-phase-free magnetoelectric composites, as well as compositionally graded ferroelectric/pyroelectric products with enhanced thermal stability. The candidate took advantage of winning through competition of some national projects, which provided her with the financial support to purchase a high-performance SPS equipment to develop such sophisticated materials. It is worth mentioning that the influence of the so-called "size effects" in nanostructured doped or highly substituted-BaTiO$_3$ products is almost unstudied. Therefore, in the context of the intensive development of nanotechnology, involving an ongoing trend to miniaturization and high integration, the candidate provided deep insight and original contributions regarding the change of the functional characteristics of the ceramics when downscaling grain size toward the nanometre range. It was found that the nanostructuring in such perovskites systems ensures a higher stability of the dielectric response, lower values of the dielectric constant, lower dielectric losses and even an increasing electrostatic energy storage capability and efficiency due to the reduction of hysteretic character, which make these dense electroceramics successful candidates for microwave and tunable devices (*J. Eur. Ceram. Soc., 43 (2023), 3250 - Q1; *Nanomaterials, 13 [22] (2023), 2974;* *Nanomaterials, 13 [22] (2023), 2974;* *Nanomaterials, 13 [22] (2023), 2934). On the other hand, the thermal stability of the generated signal is also an important issue to be considered in the case of pyroelectric detectors. This means a good thermal stability of both, the permittivity and pyroelectric coefficient. The candidate found that a method to enhance the abovementioned thermal stability is to produce composition gradients
inside the bulk ceramics such that each of the different component layer to have a
different ferroelectric-paraelectric phase transition temperature. This way, in a
compositional graded structure the temperature variation of the two parameters,
the dielectric constant and pyroelectric coefficient will no longer be sharp at the
transition, as it is typical for a single composition, but it will become diffuse,
leading to almost constant values on extended temperature domains. The high-
novelty approach proposed by the candidate, consists in producing symmetric
(with respect to the electrodes) graded architectures, with potential applications for
energy and power measurement of laser beams, very useful for the High-Power
2085; • Patent RO132197-B1, 2020, "Massive ferroelectric ceramics with improved
properties for pyroelectric detection by concentration gradient"; • Patent RO132446-
A0, 2023,"Pyroelectric detector based on ceramics with planar concentration gradient
and universal pyroelectric signal amplifier for voltage mode"; • Chap. 10.
Compositionaly-graded ferroelectric ceramics and multilayers for electronic and
sensing applications, pp. 223-232, in „Magnetic, Ferroelectric, and Multiferroic Metal

The analysed homovalently doped-BaTiO₃ systems were: (a) homogeneous
(Ba₅Sr)TiO₃ ceramics (J. Eur. Ceram. Soc., 43, (2023), 3250 - Q1; • Ceram. Int., 46
 ceramic material"; • Ceram. Int., 42 (2016), 10338 - Q1; • J. Eur. Ceram. Soc., 27
(2007), 3655 - Q1; • Phase Transit., 79 (2006), 375) and compositionally graded
(Ba₅Sr)TiO₃ products (• J. Mater. Res. Technol., 12(2021), 2085; • Patent RO132197-
B1, 2020, "Massive ferroelectric ceramics with improved properties for pyroelectric
detection by concentration gradient"; • Chap. 10. Compositionally-graded ferroelectric
ceramics and multilayers for electronic and sensing applications, pp. 223-232, in „Magnetic, Ferroelectric, and Multiferroic Metal Oxides”, Elsevier, 2018), as well as
(b) Ba(Ti,Zr)O₃ thin films and bulk ceramics (• Appl. Surf. Sci., 265 (2013), 510 - Q1;

The same approach was used to prepare from nanopowders synthesized by the
modified Pechini method and different variants of the sol-gel routes and to investigate
more complex, multi-scale structured BaTiO₃-derived ceramics with piezoelectric and/or
relaxor behaviour, as the lead-free Ba₀.₈₂Ca₀.₁₅Ti₀.₉ₐZr₀.₁₀O₃ (BCTZ) (• Nanomaterials,
13 (2023),2934) and the high-entropy Bi₀.₂K₀.₂Ba₀.₂Sr₀.₂Ca₀.₂TiO₃ (BiKBSCT)
(•Nanomaterials, 13 (2023), 2974) perovskites. This research direction was later
extended also to the multiferoic nanosized BiFeO$_3$-based systems (• Nanomaterials, 9 (2019), 1465) and other multifunctional self-organized (Ba,Ti)-layered ferrites (Ceram. Int., 46, Part A (2020), 28621 - Q1), as well as to some peculiar magnetoelcetric composites derived from core-shell Ni$_{0.50}$Zn$_{0.50}$Fe$_2$O$_4$@BaTiO$_3$ and Fe$_2$O$_3$@BaTiO$_3$ powders and consolidated by different sintering techniques. The candidate found that the approach involving core-shell particles leads to composites with Maxwell-Garnett (0-3) microstructure, which determines improved dielectric properties and smaller conductivity due to a better isolation of the magnetic phase into the ferroelectric matrix and to a lower percolation, relative to the conventional composites of similar composition, prepared by mixing magnetic and ferroelectric powders synthesized by wet-chemical methods (• J. Appl. Phys., 118 (2014), 084102). She also shown the advantage of the consolidation by SPS in producing dense, secondary-phase free magnetoelctric composites, with controlled functional properties (• Chem. Mater., 22 (2010), 4740- Q1). The works reporting these results were cited in prestigious journals as Advanced Materials, I.F. = 29.4; AIS = 6.781, Nature Communications - I.F. = 16.6; AIS = 5.767, as well as Physics Reports-Review Section of Physics Letters -I.F. = 29.9; AIS = 9.564 andNano Energy -I.F. = 17.6; AIS = 3.323, respectively.

It is worth mentioning that, in the last decade, the candidate has shown a growing interest in investigating optical properties and photocatalytic activity of some oxides. Thus, spinel (Zn,Co)Al$_2$O$_4$ nanopowders used as pigments (• Dalton Trans., 52 (2023), 10386 - Q1; • Dyes Pigm., 87 (2010), 125 - Q1), as well as Eu$^{3+}$-doped BiFeO$_3$ nanoparticles with photoluminescent properties (• Nanomaterials, 9 (2019), 1465) were prepared and analyzed. A former work regarding (Zn,Co)Al$_2$O$_4$ blue pigments was highly cited, receiving the Certificate "Dyes and Pigments - Top Cited Papers for 2010 and 2011" (see the section "Titles, awards and national / international visibility"). In the recent years, the candidate's research efforts were also focused on the photocatalytic oxidation as an advanced oxidation process involving semiconducting materials for both water and wastewater treatment. From this point of view, several oxide systems as MgO powders (• Gels, 9 (2023), 624 - Q1), S-, Ag-, Co-, Fe-, Ni-, Sn-, Cu-, Zn-doped TiO$_2$ powders (• J. Non Cryst. Solids, 354 (2008), 705 - Q1; • J. Sol Gel Sci. Techn., 51 (2009), 315; • Ceram. Int., 40 (2014), 12273- Q1;• Appl. Catal. A-Gen., 504 (2015), 130; • Ceram. Int., 42 (2016), 3088 - Q1; • Catalysts, 13 (2023), 534; • Gels, 9 (2023), 267 - Q1), Pd-, Au- and Fe-doped TiO$_2$ thin films (• J. Phys. Chem. Solids, 69 (2008), 2548; • Appl. Surf. Sci., 257 (2011) - Q1, 4227; • Appl. Surf. Sci., 455 (2018), 201 -
spinel ZnCr$_2$O$_4$ and (Ni,Zn)Al$_2$O$_4$ powders (Catalysts, 8 (2018), 210; J. Nanopart. Res., 15 (2013), 1456) and BiFeO$_3$ nanoparticles (Ceram. Int., 45, Part B, (2019), 2789 - Q1) have been studied. The works containing all these original contributions were highly cited especially in the prestigious journal Applied Catalysis B-Environmental - I.F. = 22.1, AIS = 2.990 (see the section "Relevant citations").

As perspective, future research of the candidate will aim to highlight the multifunctionality of other RE-doped BaTiO$_3$ and RE-BiFeO$_3$ (RE = Pr$^{3+}$, Nd$^{3+}$) products beyond their electric/magnetic behaviour, by combining photoluminescence induced by RE dopants with photocatalytic activity stimulated through the manipulation of spontaneous polarization, along with a better understanding of the key-role exerted by some extrinsic contributions, as particle/grain size, porosity, etc. This represents an extension of the research undertaken by the candidate up to date.

The original results of the research activity of the candidate were published in 133 ISI-quoted journals, most of them in AIS-Q1 and AIS-Q2 journals, 1 monograph (NovaScience, USA, 823 libraries), 10 book chapters (1 Wiley, USA; 3 Elsevier, UK; 1NovaScience, USA; 1 MDPI, Switzerland; 1 InTech, Croatia; 3 Transworld Research Network, India) and they were also reported in 10 national patents.

![Fig. 1. Distribution of publications by the Article Impact Score (AIS) (2011–2024).](image)

Almost all the scientific papers published were followed by citations in AIS-quoted journals (some examples are given in the section "Relevant citations"). The citing report is presented below.

- **3253 citations** (3043 without self-citations), with an average per item of **21.83**, Hirsch Index $H = 34$, according to Web of Science Core Collection;
- **3503 citations** (3251 without self-citations), with an average per item of **23.66**, Hirsch Index $H = 36$ ($H = 34$ without self-citations), according to Scopus;
- **4256 citations**, Hirsch Index $H = 39$, according to Google Scholar.
E. The impact of research and/or innovation activity, assessed by the quality of citations in indexed journals (Journal CitationReports Q1) according to the influence score:

(a) Relevant citations:


4. X. Xu, L. Xiao, Y. Jia, Z. Wu, F. Wang, Y. Wang, N. O. Haugen, H. Huang, 
"Pyro-catalytic hydrogen evolution by Ba_{0.7}Sr_{0.3}TiO_3 nanoparticles: 
harvesting cold–hot alternation energy near room-temperature", ENERGY & 
ENVIRONMENTAL SCIENCE, 11 [8] (2018), 2198-2207; I.F. = 32.5; AIS = 
8.948; https://doi.org/10.1039/C8EE01016A;
- C. Wang, N. Tian, T. Ma, Y. Zhang, H. Huang, "Pyroelectric catalysis", 
NANO ENERGY, 78 (2020) art. no. 105371; I.F. = 17.6; AIS = 3.323;
https://doi.org/10.1016/j.nanoen.2020.105371;
- M. Wang, B. Wang, F. Huang, Z. Lin, "Enabling PIEZOpotential in 
PIEZOelectric Semiconductors for Enhanced Catalytic Activities", 
ANGEWANDE CHEMIE-INTERNATIONAL EDITION, 58 [23] (2019), 
7526-7536 ; I.F. = 16.6; AIS = 3.697; https://doi.org/10.1002/anie.201811709

5. A. Ianculescu, A. Brăileanu, I. Pasuk, M. Zaharescu, „Phase formation study of 
alkaline earth-doped lanthanum chromites", JOURNAL OF THERMAL ANALYSIS 
- N. Mahato, A. Banerjee, A. Gupta, S. Omar, K. Balani, "Progress in 
Material Selection for Solid Oxide Fuel Cell Technology: A Review", 
PROGRESS IN MATERIALS SCIENCE, 72 (2015) 141-337; I.F. = 37.4; AIS = 
8.318; https://doi.org/10.1016/j.pmatsci.2015.01.001

Mitoseriu, "Grain size-dependent properties of dense nanocrystalline barium 
titanate ceramics", JOURNAL OF THE AMERICAN CERAMIC SOCIETY, 95 
- Y. Dong, K. Zou, R. Liang, Z. Zhou, "Review of BiScO_3-PbTiO_3 piezoelectric 
materials for high temperature applications: fundamental, progress, and 
perspective", PROGRESS IN MATERIALS SCIENCE, 132 (2022), art. no. 
101026; I.F. = 37.4; AIS = 8.318; https://doi.org/10.1016/j.pmatsci.2022.101026;
Sewvandi, D. Yang, D. Hu, "Additive Manufacturing of Piezoelectric 
2005141; I.F. = 19.0; AIS = 3.987; https://doi.org/10.1002/adfm.202005141;
Storage Density in Superparaelectric- Like Hf_{0.2}Zr_{0.8}O_2 Electrostatic
Supercapacitors”, ADVANCED SCIENCE, 18 (2023), art. no. 2300792; I.F. = 15.1; AIS = 3.548; https://doi.org/10.1002/advs.202300792;
Nanosized ZnCr$_2$O$_4$ and its Photocatalytic Performance in the Degradation of Humic Acid from Drinking Water cited in


11. L. P. Curecheriu, M. T. Buscaglia, V. Buscaglia, L. Mitoșeriu, P. Postolache, A. Ianculescu, P. Nanni, "Functional properties of BaTiO$_3$-Ni$_{0.5}$Zn$_{0.5}$Fe$_2$O$_4$ magnetoelastic ceramics prepared from powders with core-shell structure", JOURNAL OF APPLIED PHYSICS, 107 [10] (2010), art. no. 104106; https://doi.org/10.1063/1.3340844 cited in:

magnetic core/shell nanoparticles”, PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS, 553 (2015) 1-32; I.F. = 29.9; AIS = 9.564; https://doi.org/10.1016/j.physrep.2014.09.007;


addition”, APPLIED CATALYSIS B-ENVIRONMENTAL, 284 (2021), art. no. 119697; I.F. = 22.1, AIS = 2.990; https://doi.org/10.1016/j.apcatb.2020.119697;


- A. Kostopoulou, E. Kymakis, E. Stratakis, “Perovskite nanostructures for photovoltaic and energy storage devices”, *JOURNAL OF MATERIALS*


(b) 10 National Patents:

1. Adelina-Carmen Ianculescu, Cătălina-Andreea Stanciu, Bogdan Ștefan Vasile, Roxana Trușcă, Adrian Ionuț Nicoară, Mihai Alexandru Eftimie, Vasile-Adrian Surdu, Preparataion of trivalent cerium-doped unidimensional nanostructure of barium titanate used as transducer, involves producing nanowires and nanotubes using e.g. barium acetate and titanium isopropoxide, depositing on substrate, and calcining (Procedeau de obținere a unor nanostructuri unidimensionale de BaTiO$_3$ dopat cu ceriu cu caracteristici feroelectrice și piezoelectrice), Patent no.RO133773-B1 / 28.12.2021, Derwent Primary Accession Number: 2020-01884J.


5. Adelina-Carmen Ianculescu, Georgeta Voicu, Daniela-Cristina Berger, Liliana Mitoseriu, Felicia Prihor Process of preparation by ceramic technology of high purity BiFeO$_3$-BaTiO$_3$ solid solutions, with low dielectric losses and
ferromagnetic characteristics at room temperature (Procedeu de preparare prin tehnologie ceramică a soluțiilor solide de BiFeO₃-BaTiO₃ de înaltă puritate, cu pierderi dielectrice mici și caracteristici feromagnetcice la temperatura camerei), Brevet de invențien. RO123236-B1 eliberat la data de 30.03.2011, Derwent Primary Accession Number: 2011-E11079.


10. L. Pintilie, I. Pintilie, M. Botea, A. Iuga, M. Cioca, A. C. Ianculescu, D. V. Ofrim, D. M. Ofrim. B. Ofrim, Pyroelectric detector based on ceramics with planar concentration gradient and universal pyroelectric signal amplifier for voltage mode (Detector piroelectric pe bază de ceramică cu gradient planar de concentrație și amplificator universal de semnal piroelectric pentru modul de
F. The ability to attract research funds or to collaborate with public and/or private research organizations, evaluated by the number of research projects won and their value or by acquiring the quality of teacher/researcher/invited speaker at universities or at international events of prestige:

(a) Research projects /academic grants obtained through competitions and research management:

I. International projects:


2. Coordinator of the research team of UPB in 2 European COST projects: (a) Single- and multiphase ferroics and multiferroics with restricted geometries (SIMUFER), FP7-ESF COST no. MP0904, (2010-2014) – Member of the Management Committee and (b) Electroceramics from Nanopowders Produced by Innovative Methods, (ELENA)539, (2006-2010).

II. National projects:

1. Project leader in 5 national grants obtained through competition:

- Controlled functionalities in multiscale BaTiO₃-based systems by combining microstructural design and doping strategy (Funcționalități controlate in sisteme pe bază de BaTiO₃ structurate la scale multiple, prin combinarea proiectării microstructurale cu strategia de dopeare) – BATIFER, Proiect no. PN-III-P4-ID-PCE-2016-0072 (2017-2019), contract no. 154/13.07.2017 – 175 645 EUR

- Size effects, phase formation mechanisms, and properties relations in micro- and nanostructured perovskite ferroic systems prepared by alternative routes (Efecte dimensionale, mecanisme de formare și proprietăți în sisteme perovskitice feroice micro și nanostructurate, preparate prin metode alternative) – FEROMAT, Proiect PN-II-ID-PCE-2011-3-0668 (2011-2016), contract nr. 92/05.10.2011 – 309 962 EUR

• Establishing correlations between processing - formation mechanism - crystalline structure - morphological characteristics for BaTiO₃ nanopowders obtained by nonconventional routes (Stabilirea corelațiilor procesare - mecanism de formare - structură cristalină - caracteristici morfologice pentru nanopulveri pe bază de titanat de bariu, obținute prin metode neconvenționale), Grant CNCSIS tip A, cod 281, contract nr. 139/14.03.2005 (2005-2007) – 15 725 EUR.


2. Partner team leader in 9 national grants obtained through competition:

• Controlling the electronic properties in heterostructures based on ferroelectric perovskites: from theory to applications (Controlul proprietăților electronice în heterostructuri bazate pe perovskiți feroelectrici: de la teorie la aplicații) – CEPROFER, Project PN-III-P4-ID-PCCF-2016-0047 (2018 - 2022), contract no. PCCF16/26.10.2018 – 268 633 EUR.

• Optimized pyroelectric materials through the polarization gradient concept and experimental model for a pyroelectric detector with potential for applications in monitoring high power/energy lasers (Materiale piroelectric optimize prin conceptul de gradient de polarizare și model experimental de detector piroelectric cu potențial de aplicații în monitorizarea laserilor de mare putere / energie) – OPTIPYROGRAD, Project PN-II-PT-PCCA-2013-4-0470 (2014-2017), contract no. 238/09.09.2014 – 61 992 EUR.

• Oxide nanomaterials with photocatalytic properties applied in the advanced degradation of the xenobiotic compounds in the water (Nanomateriale oxidice cu proprietăți fotocatalitice aplicate în degradarea avansată a compușilor xenobiotici din apă) – NATIXEN, Project PN-II-PT-PCCA-2011-3.1-0031 (2012-2016), contract no. 139/02.07.2012 – 78 523 EUR.

• Nonpolluting synthesis strategies of environmentally friendly ceramic pigments (Strategii de obținere a unor pigmenti ceramici prietenoși mediului prin metode


- Interdisciplinary consortium to investigate multiferroic systems with magnetolectric coupling (Consortiu interdisciplinar pentru investigarea sistemelor multiferioce cu cuplaj magnetolectric) – CONSMEMF, CNCSIS Grant of AC type (Consortium) code 115, contract no. 196/05.06.2006 (2006-2008) – 10 332 EUR.

(b) Teacher/researcher/invited speaker at universities of prestige

LA DIRECTRICE GENERALE DU C.N.R.S

VU, le Décret n°69-494 du 26 septembre 1969 modifié concernant les chercheurs associés au C.N.R.S.

VU, la décision du Directeur Général n° 92-0792 du 16 décembre 1992 concernant les chercheurs associés du C.N.R.S.


VU, le courrier de M. DESPAX en date du 15/01/2001

Décision n°SG/01-09

DECIDE

La décision n°SG/00-69 en date du 23/01/01 est modifiée comme suite :

ARTICLE UNIQUE :

Madame Adelina-Carmen IANCULESCU, agent n° 197716

est recrutée en qualité de chercheur associé

Chercheur Associé C.R.A, Echelon 09 Indice majoré 622

Pour une période de 6 mois

Lire : du 01/02/2001 au 31/07/2001

Au lieu de : du 01-01-2001 au 30-06-2001

sous réserve de l'obtention du titre scientifique

Affectation :

UMR 5003

Laboratoire de Génie Electrique de Toulouse

Université Paul Sabatier

118 Route de Narbonne

31062 TOULOUSE Cedex

Fait à TOULOUSE, le 30 JAN. 2001

P/ La Directrice Générale du C.N.R.S.

et par délégation,
La Déléguée Régionale

Pour le Département en charge
Katherine PIQUIST-GAUTHEIER

Claude DETRÉZ

La Directrice Générale du Centre National de la Recherche Scientifique

Vu le Décret n° 92-342 du 17 juin 1992 modificant le décret n° 69-894 du 26 septembre 1969 modifié concernant les chercheurs associés au C.N.R.S.,

Vu la décision du Directeur Général n° 92-0792 du 16 décembre 1992 concernant les chercheurs associés au C.N.R.S.,

Vu la note du département des Sciences Chimiques en date du 11 février 2002,

- DECIDE -

N° 02/330/CC

ARTICLE UNIQUE :

Madame Adelina IANCULESCU agent n° 197716,
est nommée en qualité de chercheur associé
pour une durée de 10 mois du 1er mars 2002 au 31 décembre 2002.

Affectation :

Centre Interuniversitaire de Recherche et d'Ingénierie des Matériaux
UMR 5085 dirigé par M. Abel ROUSSET

L'intéressée perçoit un traitement afferent à
l'indice 622 (DACR – 9ème échelon).

A TOULOUSE le 19 MARS 2002

VU, le Contrôleur Financier près les EPST
(Sous réserve de l'approbation du directeur scientifique)
La Déléguée Régionale pour la région Midi-Pyrénées du Centre National de la Recherche Scientifique atteste que l’accueil de Madame Adelina IANCULESCU, en qualité de chercheur associé est prolongé pour une durée de trois mois à compter du 1er janvier 2003 jusqu’au 31 mars 2003.

Fait pour servir et valoir ce que de droit,

Toulouse, le 18 décembre 2002

La Déléguée Régionale

Pour le Délégué Régional Emploie,

Ministre

Claude DETREZ

DELEGATION MIDI-PYRENEES
16 AVENUE EDUARD SELIEU - BP 4367 - 31055 TOULOUSE CEDEX 4 - TEL : 05 61 35 60 00 - TELECOPIE : 05 62 17 29 03
4. Visiting professor, University of Limoges, 33 rue François Mitterrand, BP 23204, 87032, Limoges, France (October, 2005) – 4 invited lectures.


(c) Invited speaker at international events of prestige

23 plenary/invited/key note lectures at international conferences, e.g.:

- "Barium strontium titanate functional materials: from nanopowders to multiscale-structured bulk ceramics", 17th International Conference on Physical Chemistry (ROMPHYSCHEM), September 25-27, 2023, Bucharest, Romania – key note lecture;
- "Properties of bulk graded (Ba,Sr)TiO₃ ceramics with various architectures obtained by spark plasma sintering", Ceramics in Europe Conferences, July 10-14, 2022, Cracow, Poland – invited lecture;
- "Ferroic inorganic perovskites used in electronics: from nanopowders to micro- and nanostructured ceramics", 3rd World Congress on Nanomaterials 2020, August 28-29, 2020, Prague, Czech Republic (Webinar) – plenary lecture;
- "One-Dimensional Ce³⁺-doped BaTiO₃ nanostructures: synthesis and properties", EMN Meeting on Nanowires, November 26-30, 2019, Port Louis, Mauritius – invited lecture;
- "Multifunctional perovskite oxides - The key of electroceramics ", 20th Romanian International Conference on Chemistry and Chemical Engineering (RICCCE 20), 6-9 September 2017, Poiana Brașov, Romania – plenary lecture;
- "Investigation of size effects and their influence on the structure and functional properties of some BaTiO₃-based systems with confined geometry", Electroceramics XV, June 27-29, 2016, Limoges, France – key note lecture;
- "Ferroic Perovskite Materials used in Electronics: Synthesis and Properties", 14th International Conference on Frontiers of Polymers and Advanced Materials (ICFPAM-14), October 31-November 4, 2016, Daejeon, South Korea – invited lecture;
- "Influence of grain size and solute content on the dielectric and ferroelectric behaviour of Ba(Ti,Zr)O₃ ceramics", the 8th International Conference on Advanced Materials (ROCAM 2015), July 7-10, 2015, Bucharest, Romania – key note lecture;
- "Modification of functional properties induced by size effects in barium titanatatezirconate ceramics", 19th Romanian International Conference on Chemistry
and Chemical Engineering (RICCCE 19), 2-5 September 2015, Sibiu, Romania — key note lecture, etc.

G. Professional prestige, assessed by the degree of recognition/appreciation of the candidate's scientific activity in the international academic community:

The candidate's standing in the international academic community and her contributions to world science is proved by:

(a) Books and book chapters published/edited by the candidate at prestigious international publishing houses

1. 1 book:

- Adelina Ianculescu, Liliana Mitoșeriu, „Ba(Ti,Zr)O₃ – Functional Materials: From Nanopowders to Bulk Ceramics”, (3 editions) NovaScience Publishers Inc, Hauppaug New York, USA, 2010, ISBN-10: 1616687525; ISBN-13: 978-1-61761-779-9, purchased by 1213 bookstores and university libraries belonging to universities and colleges from USA, Canada, Australia, New Zealand, India, China, Hong Kong, Taiwan, Singapore, Korea, Thailand, Malaysia, Philippines, South Africa, UK, France, Germany, Italy, Sweden, Denmark, Norway, Finland, Netherlands, Spain, Austria, Russia, Latvia, Lithuania, Georgia, Poland, Czech Republic, Hungary, Slovenia, Slovakia, Turkey, Greece, Cyprus, Bulgaria, Serbia, Lebanon, Morocco, Mexico, Brazil, Colombia, Ecuador, Armenia, Egypt, Jordan, Kuwait, Saudi Arabia, Mongolia, Bahrain, United Arab Emirates, etc., (e.g. (1) Stanford University Libraries - USA, (2) Yale University Library - USA, (3) University of Chicago Library - USA, (4) Northwestern University Library - USA, (5) Pennsylvania State University Libraries - USA, (6) Korea University Library - Seoul Korea, (7) University of Alberta Library - Canada, (8) Cardiff University Library - UK, (9) University of Groningen Library - Netherlands, (10) Maastricht University Library - Netherlands, etc., according to the website http://www.worldcat.org/).

2. 10 book chapters:

Compositionally-graded ferroelectric ceramics and multilayers for electronic and sensing applications, pp. 223-232, in „Magnetic, Ferroelectric, and Multiferroic Metal Oxides” (3 editions), Part. 1, Section III, Elsevier, 2018, Ed. Biljana Stoianović, Ghenadii Korotcenkov, ISBN: 978-0-12-811180-2; DOI: 10.1016/B978-0-12-811180-2.00010-4, purchased by 216 bookstores and university libraries (e.g. 1 MIT Libraries / Massachusetts Institute of Technology Libraries - USA, 2 Stanford University Libraries - USA, 3 University of Chicago Library - USA, 4 Princeton University Library - USA, 5 Cornell University Library - USA, 6 Pennsylvania State University Libraries - USA, 7 Johns Hopkins University/Sheridan Libraries and the Milton S. Eisenhower Library - USA, 8 McGill University Library - Canada, 9 University of Manchester Library - UK, 10 University of Edinburgh - Main Library - UK, etc.);


- Speranţa Tanasescu, Alina Botea, **Adelina Ianculescu**, Chap.15. *Effects of Doping and Oxygen Nonstoichiometry on the Thermodynamic Properties of Some Multiferroic Ceramics*, pp. 347-372, in „Ferroelectrics – Physical Effects” (3 editions), InTech Open Acces Publisher, Rijeka, Croatia, 2011, Ed. Mickaël Lallart, ISBN: 978-953-307-453-5, purchased by 137 bookstores and university libraries (e.g. 1 MIT Libraries / Massachusetts Institute of Technology Libraries - USA, 2 University of Chicago Library - USA, 3 McGill University Library - Canada, 4 Université de Montréal/UdeM Library - Canada, 5 University of Queensland - Australia, 6 UQ Library, Radboud University/University Library - Netherlands, 7 University of
Groningen Library - Netherlands, (8) University of Twente / University Library - Netherlands, (9) Oxford Brookes University Library - UK, (10) University of Bristol Library - UK, etc.);


(b) Titles, awards and national / international visibility:

1. Title of FELLOW of the European Ceramic Society, in recognition of achievements and contributions to the field of Ceramics, 2023, Lyon, France (https://ecers.org/en/ec/fellowship);
2. "I.G. Murgulescu" Award of the Romanian Academy (for the year 2001), for the contribution "Correlation between the formation mechanism and the structural characteristics in perovskite-based oxide materials";

5. Full Member of the Editorial Board of the MDPI journal "Nanomaterials", I.F. = 5.3; (https://www.mdpi.com/journal/nanomaterials/editors) 2020 - present.
(c) Member of Scientific Societies


https://electroceramics.org/en/el/international-committee

The Netherlands
Guus Rijnders
MESA+ Institute for Nanotechnology, University of Twente

Norway
Tor Grande
Department of Materials Science and Engineering, NTNU Norwegian University of Science and Technology, Trondheim

Poland
Bartłomiej Andrzejewski
Institute of Molecular Physics, Polish Academy of Sciences, Poznań
Merch Faryna
Institute of Metallurgy and Materials Science, Polish Academy of Sciences, Kraków

Portugal
Fernando Marques
Department of Materials and Ceramic Engineering, CICECO, University of Aveiro
Paula Vilarinho
Department of Materials and Ceramic Engineering, CICECO, University of Aveiro

Romania
Adelina Ianculescu
Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest
Liliana Mutosretu
Faculty of Physics, Al. I. Cuza University of Iași

Russia
Elizaveta Nenasheva
Girond Research Institute Ceramics, St.-Petersburg

Serbia
Vladimir Srdic

Slovenia
Barbara Malic

Spain
Lourdes Calzada

Member of the:

3. European Society of Electron Microscopy (2011 – present);
4. Societatea Română de Microscopie Electronică (2011 – present);
5. International Confederation for Thermal Analysis and Calorimetry - ICTAC (2008 – present);
6. Comisia de Analiză Termică și Calorimetrie din România - CATCAR (2007 – present);
7. Societatea Română de Chimie (1998 – present);
8. European Ceramic Society (1993 – present);
9. Societatea Română de Ceramică (1993 – present);

(d) Member of the scientific / organizing committees of prestigious international events

1. Member of the International Advisory Committee of the 18th Conference & Exhibition of the European Ceramic Society - ECerS, 2-6 July, 2023, Lyon, France (https://www.ecers2023.org/en/committees/international-advisory-committee/12)
3. Member of the International Advisory Committee of the «Ceramics in Europe» Network (ICC9, ECerS XVII, Electroceramics XVIII), July 10-14, 2022, Krakow, Poland. (https://www.ceramicsineurope2022.org/komitet) (2022);

4. Member of the Scientific Committee of several editions of the International Conference of Physical Chemistry - ROMPHYSCEM;

5. Member of the Scientific Committee of several editions of the Romanian International Conference on Chemistry and Chemical Engineering (RICCE);

6. Member of the Organizing Committee of several editions of the European Symposium on Thermal Analysis and Calorimetry - ESTAC;

(e) Review / evaluation activity


2. Member of the jury of the "Student Speech Contest" held at each edition of the Conference of the European Ceramics Society (evaluator representing Romania: 2013 – present);

3. Member of the jury for the defense of the PhD thesis "Hydroxyapatite-based architectured and nano-structured bioactive coatings fabricated by cold spray", author **Puiu Alberto Ion**, coordinators: Dr. Alain Denoirjean, Dr.Fabrice Rossignol, Dr. Nicolas Tessier-Doyen, (2021) – University of Limoges, France;

4. Member of the jury for the defense of 32 PhD theses in Romania.

5. Member of the jury for the defense of 6 Habilitation theses in Romania;

6. Reviewer for 4 books / monographs.

H. Training Activity:

The candidate is the **Coordinator of the research activity** of the Technological Platform "Micro and Nanostructured Multifunctional Materials–3MN", due to a National CNCSIS Grant for "Interdisciplinary training and research platforms / laboratories", which attracted **1,095,199 EUR, Coordinator of the Research Laboratory of Materials Shaping** from "Politehnica" University of Bucharest and Head of the
Research Laboratory of "Technology of Ceramics & Refractory Products" of the Department of Science & Engineering of Oxide Materials and Nanomaterials, "Politehnica" University of Bucharest. She possesses also the quality of Mentor in 4 projects for young scientists:

- **Oxide perovskites designed by configurational entropy (EntroPer),** PN-III-P1-1.1-PD-2021-0625 (2022 - 2024);
- **Intumescent materials for passive fire protection (IMPasFire),** PN-III-P1-1.1-PD-2019-0709, (2020-2022);
- **Size-driven phenomena as origin for novel traits of advanced ferroelectric nanostructured (Ba,Sr)TiO$_3$ ceramics (SPONTAN),** PN-III-P1-1.1-PD-2019-0739 (2020-2022) and

As a research team leader, Prof. A. Ianculescu coordinated the training and scientific development of young researchers, as is the case of Dr. Cătălina-Andreea Stanciu (Vasilescu), starting with her doctoral and postdoctoral activity and continuing with her current research activity. All the young members of the research team, *i.e.* Cătălina-Andreea Stanciu (Vasilescu), Bogdan Ştefan Vasile, and, more recently, Vasile-Adrian Surdu, Adrian Ionuţ Nicoară, Vladimir Lucian Ene and Elena-Mirabela Soare, were involved in elaborating joint scientific papers, conference contributions, national patents, as well as in activities related to the national / international grants of the candidate. She also coordinated 2 projects of inter-academic cooperation Romania - France and several Socrates - Erasmus projects with University of Limoges, France, involving the exchange of students for research internships.
Ianculescu Adelina - Carmen

PUBLICATIONS IN JOURNALS QUOTED in Q1&Q2 quartals

- red zone (Q1 - AIS) – 57 articles; - yellow zone (Q2 - AIS) – 39 articles;

1. V.-A. Surdu, M.-A. Marinică, R.-E. Pătru, O.-C. Oprea, A. I., Nicoară, B. Ş. Vasile, R. Truşcă, A.-C. Ianculescu, High-Entropy Lead-Free Perovskite B_{60.2}K_{0.2}Ba_{0.2}Sr_{0.2}Ca_{0.2}TiO_3 Powders and Related Ceramics: Synthesis, Processing, and Electrical Properties, Nanomaterials, 13 [22] (2023), art. no. 2974, MDPI, ISSN: 2079-4991.

2. V. L. Ene, V. R. Lupu, C. V. Condor, R. E. Patru, L. M. Hrib, L. Amarandie, A. I. Nicoara, L. Pintilie, A.-C. Ianculescu, Influence of Grain Size on Dielectric Behavior in Lead-Free 0.5 Ba(Zr_{0.2}Ti_{0.8})O_3−0.5 (Ba_{0.7}Ca_{0.3})TiO_3 Ceramics, Nanomaterials, 13 [22] (2023), art. no. 2934, MDPI, ISSN: 2079-4991.


photoluminescence properties, Nanomaterials, 9 [10] (2019), art. no. 1465, MDPI, ISSN: 2079-4991.


49. V. Kalyani, B. Vasile, A. Ianculescu, M. Buscaglia, V. Buscaglia, P. Nanni, Hydrothermal synthesis of SrTiO₃ mesocrystals: Single crystal to mesocrystal transformation induced by


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60. A. Ianculescu, M. M. Carnaschi, L. P. Curecheriu, L. Mitosieriu, Raman investigation and functional characterisation of (Pb0.8La0.2)(Mg0.4Nb0.6)O3 ceramics prepared by the columbite method, Journal of Alloys and Compounds, 508 [2] (2010), 391-395, Elsevier, ISSN: 0925-8388.


69. B. Jurcă, C. Paraschiv, A. Ianculescu, O. Carp, Thermal behaviour of the system Fe(NO3)3 · 9H2O–Bi2O(OH)4(NO3)4 · 9H2O – glycine/urea and of their generated oxides (BiFeO3), Journal of


C. Parasciv, B. Jurcă, A. Ianculescu, O. Carp, Synthesis of Nanosized Bismuth Ferrite (\( \text{BiFeO}_3 \)) by a Combustion Method Starting from \( \text{Fe(NO}_3)_3\cdot9\text{H}_2\text{O-Bi(NO}_3)_3\cdot9\text{H}_2\text{O-Glycine or Urea Systems} \), Journal of Thermal Analysis and Calorimetry, 24 [2] (2008), 411-416, Springer, ISSN: 1388-6150 (Print); 1572-8943 (Online); F.I. = 1.63.


