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Nationality: Romanian

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Date of birth: 18/09/1990

Gender: Male

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Address : Spl. Independenței, No. 131, District 6 ANs21, Bucharest (Romania)

WORK EXPERIENCE

Assistant professor (Lecturer)

University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science [01/10/2016 – Current]

Address: 1-7 Gheorghe Polizu Street, District 1, 011061 Bucharest (Romania) - <http://en.chimie.upb.ro>

City: Bucharest

Country: Romania

Name of unit or department: Department of Science and Engineering of Oxide Materials and Nanomaterials - **Business or sector:**

University research assistant

National Research Center for Micro and Nanomaterials, University POLITEHNICA of Bucharest [01/01/2015 – Current]

Address: Spl. Independentei, No. 313, 060042 Bucharest (Romania) - <http://www.micronanotech.ro>

City: Bucharest

Country: Romania

Name of unit or department: Department of Science and Engineering of Oxide Materials and Nanomaterials - **Business or sector:**

EDUCATION AND TRAINING

Doctoral Thesis - Alkali activated binder materials with intumescent properties

Doctoral School of Applied Chemistry and Materials Science, University POLITEHNICA from Bucharest [01/10/2015 – 26/07/2019]

Address: Bucharest (Romania)

Masters of Science - Micro and Nanomaterials

University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science [01/10/2013 – 04/07/2015]

Address: Bucharest (Romania)

Engineer Diploma

University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science [01/10/2009 – 16/06/2013]

Address: Bucharest (Romania)

LANGUAGE SKILLS

Mother tongue(s):

Romanian

English

LISTENING: B2 READING: B2 WRITING: B1

SPOKEN PRODUCTION: B1 SPOKEN INTERACTION: B1

French

LISTENING: B1 READING: B1 WRITING: A1

SPOKEN PRODUCTION: A2 SPOKEN INTERACTION: A2

DIGITAL SKILLS

Microsoft Office: Word, Excel, Access, Power Point, Outlook. / Excellent knowledge of graphic software / Excelent data and graph scientific analysis (Origin) / Microsoft Teams - Work From Home

ORGANISATIONAL SKILLS

Event organizer

- I am a good organizer, I have held the position of President of a student dormitory that has one effectively 300 people.
- Member of the organizing committee of the First Conference of the Electronic Microscopy Society in Romania, Bucharest, 7-8 May 2015
- Member of the organizing committee of the 7th edition of the «International Conference of Companies of Chemistry from the countries of Southeast Europe»
- Member of the organizing committee of ChemEx 2010, 2011 - a national project that involves the exchange of experience between the students of some universities in Romania
- The organizer of the stand "POLIFEST" of the Faculty of Applied Chemistry and Materials Science 2013 - 2019
- The organizer of the National Contest "HOW TO DO?", Bucharest, October 2011- 2015
- The organizer of "Costin D. NENITESCU" National Competition, November 2012 - 2015
- The organizer of "Scoala Altfel" - activities for students within the Faculty of Applied Chemistry and Science Materials, on the occasion of "Open Doors Days", Bucharest, 2013 - 2016
- Volunteer as part of the tree-planting campaign "Creste Verde" - November 2011

PUBLICATIONS

Nicoara, A.I.; Ene, V.L.; Voicu, B.B.; Bucur, M.A.; Neacsu, I.A.; Vasile, B.S.; Iordache, F., Biocompatible Ag/Fe-Enhanced TiO₂ Nanoparticles as an Effective Compound in Sunscreens. *Nanomaterials*, 2020, 10, 570. DOI:10.3390/nano10030570, ISSN:2079-4991, IF=4.034 (Q1), WOS:000526090400170

[2020]

Nicoara, A.I.; Stoica, A.E.; Vrabec, M.; Šmuc Rogan, N.; Sturm, S.; Ow-Yang, C.; Gulgun, M.A.; Bundur, Z.B.; Ciuca, I.; Vasile, B.S. End-of-Life Materials Used as Supplementary Cementitious Materials in the Concrete Industry. *Materials* 2020, 13, 1954, DOI:10.3390/ma13081954, ISSN 1996-1944, FI=2.972 (Q2)

[2020]

Neacsu, I.A.; Serban, A.P.; Nicoara, A.I.; Trusca, R.; Ene, V.L.; Iordache, F. Biomimetic Composite Scaffold Based on Naturally Derived Biomaterials. *Polymers*, 2020, 12, 1161. DOI:10.3390/polym12051161, ISSN 2073-4360, FI=3.164 (Q1)

[2020]

Nicoară, A-I, Bădănoiu, A Voicu, G.,Dinu,C., Ionescu, A., Intumescent coatings based on alkali activated borosilicate inorganic polymers, *J. Coat. Technol. Res.*, 2020, 17(3), pp. 681-692, DOI:10.1007/s11998-019-00274-7, ISSN: 1547-0091, FI=1.584

[2020]

Draghici, A.-D., Busuioc, C., Mocanu, A., Nicoară, A-I, Iordache, F., Jinga, S.-I., Composite scaffolds based on calcium phosphates and barium titanate obtained through bacterial cellulose templated synthesis, *Materials Science and Engineering C*, 2020, 110, 110704, DOI:10.1016/j.msec.2020.110704, ISSN: 0928-4931, FI=4.959, WOS:000527395900079

Busuioc, C., Olaret, E., Stancu, I.-C., Nicoara, A.-I., Jinga, S.-I., Electrospun fibre webs templated synthesis of mineral scaffolds based on calcium phosphates and barium titanate, *Nanomaterials*, 2020, 10(4), 772, DOI: 10.3390/nano10040772, ISSN:2079-4991, IF=4.034

[2020]

Voicu, G., Miu, D., Ghitulica, C.-D., Jinga, S.-I., Nicoara, A.-I., Busuioc, C., Holban, A.-M., Co doped ZnO thin films deposited by spin coating as antibacterial coating for metallic implants, *Ceramics International*, 2020, 46(3), pp. 3904-3911, DOI: 10.1016/j.ceramint.2019.10.118, ISSN:0272-8842, FI=3.450, WOS: 000508752000161

Vasile, B.S., Birca, A.C., Surdu, V.A., Neacsu, I.A., Nicoară, A.I., Ceramic composite materials obtained by electron-beam physical vapor deposition used as thermal barriers in the aerospace industry, *Nanomaterials*, 2020, 10(2), 370, DOI:10.3390/nano10020370, ISSN:2079-4991, FI=4.034, WOS: 000522456300189

[2020]

Barbulescu, L.E., Dumitriu, C., Dragut, D.V., Nicoară, A.I., Bădănoiu, A., Pirvu, C., Residual titanium flakes as a novel material for retention and recovery of rare earth and relatively rare earth elements, *Environmental Science and Pollution Research*, 2020, 27(4), pp.4450-4459, DOI:10.1007/s11356-019-06839-8, ISSN: 0944-1344, FI=2.914, WOS:000519703100078

[2020]

Oproiu, C.-L., Nicoara, A., Voicu, G., Bădănoiu, A.-I., The effect of ash resulted in wood-based pannels manufacturing process on the properties of portland cement, *UPB Scientific Bulletin, Series B: Chemistry and Materials Science*, 2020, 82(1), pp. 15-24 ISSN: 1454-2331

[2020]

Jinga, S.-I., Draghici, A.-D., Mocanu, A., Nicoară, A.I., Iordache, F., Busuioc, C. Bacterial cellulose–assisted synthesis of glass-ceramic scaffolds with TiO₂ crystalline domains, *International Journal of Applied Ceramic Technology*, 2020, 00:1-8, DOI: 10.1111/IJAC.13506, FI=1.074

[2020]

Nicoara, A.I.; Stoica, A.E.; Ene, D.-I.; Vasile, B.S.; Holban, A.M.; Neacsu, I.A. In Situ and Ex Situ Designed Hydroxyapatite: Bacterial Cellulose Materials with Biomedical Applications. *Materials* 2020, 13, 4793.

[2020]

Draghici, D.-A.; Mihai, A.-A.; Aioanei, M.-O.; Negru, N.-E.; Nicoara, A.I., Jinga, S.-I.; Miu, D.; Bacalum, M.; Busuioc,C.; Strontium-Substituted Bioactive Glass-Ceramic Films for Tissue Engineering, *Boletín de la Sociedad Española de Cerámica y Vidrio*, 2020, ISSN 0366-3175, <https://doi.org/10.1016/j.bsecv.2020.09.006>

[2020]

Todasca, C., Gudovan, D., Tociu, M., Trusca, R., Nicoara, A.I., Manolescu, B.N., Manolache, F., Wine industry waste valorisation as repellent support, *Revue Roumaine de Chimie*, 2020, 65 (1), pp. 69-75., DOI: 10.33224/rch.2020.65.1.07, FI=0,381, WOS:00054881570000

[2020]

Andronescu, E., Predoi, D., Neacsu, I.A., Paduraru V.P., Musuc, A.M., Trusca, R., Oprea O., Nicoara, A.I., (..), Iconaru, S.L., Vasile, B.S., Photoluminescent hydroxylapatite: Eu³⁺ doping effect on biological behavior, *Nanomaterials*, 2019, 9(9), 1187, DOI:10.3390/nano9091187, ISSN:2079-4991, FI= 4.034, WOS: 000489101900004

[2019]

Croitoru, A., Oprea, O., Nicoara, A., Trusca, R., Radu, M., Neacsu, I., Ficai, D., Ficai, A., Andronescu, E., Multifunctional platforms based on graphene oxide and natural products, *Medicina*, 2019, 55(6), p230, DOI:10.3390/medicina55060230, ISSN: 1010-660X, FI=1.467, WOS:000475303800015

[2019]

Stanescu, G., Badanoiu, A., Nicoara, A., Voicu, G., Brick and glass waste valorisation in the manufacture of aerated autoclaved concrete, *Revista de Chimie*, 2019, 70(3), pp. 828-834, ISSN: 0034-7752 FI=1.605, WOS:000464911600017

[2019]

Ionita, D., Nicoara, A., Stoian, A.B., The evolution of morphology and properties of films obtained by anodizing zirconium, *Revista de Chimie*, 2019, 70(6), pp. 1911-1913, ISSN: 0034-7752, FI=1.605, WOS: 000475860100005

Neacsu, IA, Melente, AE, Holban, AM, Ficai, A, Ditu, LM, Kamerzan, CM, Tihauan, BM, Nicoara, AI, Bezirtzoglou, E, Chifiriuc, MC, Pircalabioru, GG, Novel hydrogels based on collagen and ZnO nanoparticles with antibacterial activity for improved wound dressings, *Romanian Biotechnological Letters*, 2019, 24(2), pp.317-323, DOI:10.25083/rbl/24.2/317.323, ISSN: 1224-5984 FI=0.590, WOS: 000466974000015

[2019]

Nicoara, A.I., Badanoiu, A., Balanoiu, M., Mathias, A., Voicu, G., Alkali activated mortars with intumescent properties, *Revista de Chimie*, 2019, 70(2), pp. 431-437, ISSN: 0034-7752, FI= 1.605, WOS: 000461982200014

[2019]

Nicoara, A.I., Badanoiu, A, Voicu, G., Influence of alkali activator on the main properties of intumescent inorganic polymers based on waste glass and borax, *Revista Română de Materiale / Romanian Journal of Materials* 2019, 49 (1), p23-32, ISSN:1583-3186, FI=0.628, WOS:000461413500003

[2019]

Nicoară, A.-I., Geanaliu-Nicolae, R.-E., Andronescu, E., Trușcă, R., A novel method of synthesis for nanoporous silica materials, *Revista Romana de Materiale/ Romanian Journal of Materials*, 2019, 49(4), pp. 461-467, ISSN:1583-3186, FI= 0.628, WOS:000502552300002

[2019]

Nicoara, A.I., Cirstea, N., Boscornea, C., Badanoiu, A., Coatings with intumescent filler based on alkali activated glass, *UPB Scientific Bulletin, Series B: Chemistry and Materials Science*, 2019, 81(3), pp. 19-28, ISSN: 1454-2331, WOS:000487215400003

[2019]

Nicoara, A.I., Neacsu, I.A., Ene, V.L., Vasile, B.S., Fikai, A., Andronescu, E., Hydroxyapatite/carbon based biocomposite scaffolds as prospective materials for bone tissue engineering, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, 2019, 81(4), pp. 107-120, ISSN: 1454-2331, WOS: 000501994100011

[2019]

Diamandescu, L., Cernea, M., Trusca, R., Enculescu, M., Tanase, L., Baibarac, M., Feder, M., Nicoara, A.-I., Popescu, T., Effects of a surfactant on the morphology and photocatalytic properties of polycrystalline Fe-doped ZnO powders, Journal of Physics and Chemistry of Solids, 121, 2018, pp 319-328, DOI:10.1016/j.jpcs.2018.05.041, ISSN:0022-3697, FI=2.752, WOS:000438321100042

[2018]

Bunoiu, I, Mindroi, M., Manole, C.C., Andrei, M., Nicoara, A., Vasilescu, E., Popa, M., Didilescu, A.C., "Electrochemical testing of a novel alloy in natural and artificial body fluids", Annals of Anatomy, 2018, 217, pp. 54-59, DOI:10.1016/j.aanat.2017.12.011, ISSN: 0940-9602, FI=2.241, WOS:000438327100009

[2018]

Oproiu, C., Voicu, G., Nicoara, A.I., Badanoiu, A.I., „The influence of partial substitution of raw materials with heavy ash on the main properties of portland cements”, Revista de Chimie, 69 (4), 2018, pp. 860-863, ISSN:0034-7752, FI=1.605, WOS:000433223000022

[2018]

Melinescu, A., Eftimie, M., Nicoară, A., Trușcă, R., Preda, M., “Synthesis of the ceramics with nepheline from geopolymeric”, Revista Romana de Materiale/Romanian Journal of Materials 48(3), 2018, pp. 285-289, ISSN:1583-3186, FI=0.628, WOS:000452733000001

[2018]

Al Saadi, T.H.A., Badanoiu, A.I., Nicoara, A.I., Stoleriu, S., Voicu, G., Synthesis and properties of alkali activated borosilicate inorganic polymers based on waste glass, Construction and Building Materials, 2017, 136, pp. 298-306, DOI: 10.1016/j.conbuildmat.2017.01.026, ISSN: 0950-0618, FI=4.046, WOS: 000395967300030

[2017]

Bărbulescu, L., Bădănoiu, A., Nicoară, A., Pîrvu, C., Use of wastes from titanium industry as alternative aggregate for Portland cement mortars, Revista Romana de Materiale/ Romanian Journal of Materials, 2017, 47(1), pp. 16-23, ISSN:1583-3186, FI=0.628, WOS:000396979900002

[2017]

Ianculescu, A.-C., Vasilescu, C.-A., Trupina, L., Vasile, B.S., Trusca, R., Cernea, M., Pintilie, L., Nicoară, A., Characteristics of Ce³⁺-doped barium titanate nanoshell tubes prepared by template-mediated colloidal chemistry, 2016, J. of European Ceramic Society. DOI:10.1016/j.jeurceramsoc.2016.01.045, ISSN: 0955-2219, FI=4.029, WOS:000372381300012

[2016]

Neacșu, I.A., Nicoară, A.I., Vasile, O.R., Vasile, B.S., “Inorganic micro- and nanostructured implants for tissue engineering”, Nanobiomaterials in Hard Tissue Engineering: Applications of Nanobiomaterials, February 25, 2016, Pages 271-295; DOI: 10.1016/B978-0-323-42862-0.00009-2, ISBN:978-0-323-42885-9; 978-0-323-42862-0, WOS:000473299500011

[2016]

PROJECTS

Re-generating (raw) materials and end-of-life products for re-use in cement/concrete

[2019 – 2022]

Intumescent materials for passive fire protection.

[2020 – 2022]

Sustainable use of waste glass in portland cement field

[2020 – 2022]

Selection and dissemination of antibiotic resistance genes from wastewater treatment plants into the aquatic environment and clinical reservoirs

[2018 – 2022]

Lib2life- the revival of libraries and cultural heritage through advanced technologies

[2018 – 2021]

Intelligent therapies for non-communicable diseases based on controlled release of pharmacological compounds from encapsulated engineered cells and targeted bionanoparticles

[2018 – 2021]

Innovative bionanomaterials for treatment and diagnosis

[2018 – 2021]

Smart scaffolds built on biocellulose 3d architecture or artificial electrospun templates for hard tissue engineering

[2019 – 2020]

Controlled functionalities in multiscale bio3-based systems by combining microstructural design and doping strategy

[2017 – 2019]

Composite hydrogels based on inorganic nanoparticles and collagen with prolonged antimicrobial activity for the prevention of wound infections

[2016 – 2018]

Recovery of recycled thermoplastic polymers by reinforcement with functionalized natural fibres to obtain new added value products

[2016 – 2018]

Bioceramic composites with local applications in antibacterial therapy

[2016 – 2017]

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.

[2015 – 2017]

Studies using immunofluorescence regarding the effect of functionalized iron oxide nanoparticles on malignant rectal tumor cells

[2016 – 2017]

CONFERENCES AND SEMINARS

Nicoară, A-I, Bădănoiu, A, Voicu, G., Bălănoiu, M., Mathias, A., The effect of inorganic additions of gypsum behavior at high temperatures, 21th RICCCE

[Constanta, 04/09/2009 – 07/09/2019]

A.I. Nicoară, C. Busuioc, A. Mocanu, A. Stoica, M. Stroescu, S.I. Jinga, Composite scaffolds based on calcium phosphates and barium titanate for hard tissue implants, XVI ECerS

[Torino, Italy, 16/06/2019 – 20/06/2019]

Adrian-Ionuț Nicoară, Patricia Medeșan, Ionela Andreea Neacșu, Bogdan Vasile, Florin Iordache, Ecaterina Andronescu, Anton Ficai „Folic acid-enhanced polyethylene glycol-coated Fe₃O₄ for Methotrexate delivery”, NanoBio&Med2017

[Barcelona, Spain, 22/11/2017 – 24/11/2017]

Nicoară, A-I, Bădănoiu, A, Voicu, G., Bălănoiu, M., Mathias, A., Synthesis of alkali activated mortars with intumescent properties, 20th RICCCE

[Poiana Brasov, Romania, 06/09/2017 – 09/09/2017]

Nicoară, A-I, Bădănoiu, A Voicu, G., Bălănoiu, M., Mathias, A., Alkali activated borosilicate inorganic geopolymers with intumescent properties, 2nd CREMS

[Sinaia, Romania, 16/05/2017 – 18/05/2017]

Nicoară, A-I, Al Saadi, T.H.A, Bădănoiu, A Voicu, G., Stoleriu, S. Synthesis and properties of alkali activated borosilicate inorganic polymers, a XII-a editie CONSILOX

[Sinaia, Romania, 16/09/2016 – 20/09/2016]

HONOURS AND AWARDS

Diploma of Honor of the Romanian Society of Chemistry for outstanding contributions to the promotion of chemistry on the occasion of the 100th anniversary of its establishment

Romanian Society of Chemistry [21/06/2019]

Diploma of Honor of the Romanian Society of Chemistry

Romanian Society of Chemistry [05/06/2015]

FameLab International Competition 2013 - Regional Selection - 2nd place

British Council

Participation in the "Introduction to Process Safety" workshops series, October-December 2012, Bucharest

Laurențiu Zamfirescu, Department of Mines and Oil, Western Australia, based on OSHA

Participation in the "Novel Food Processing Technologies" workshop

HighTech Europe Network of Excellence [08/04/2011]

"Petru Spacu" Professional Competition - Mention

Faculty of Applied Chemistry and Materials Science

The Physics Olympiad, the county stage - Mention

Argeș County School Inspectorate [24/02/2007]

DRIVING LICENCE

Driving Licence: **AM**

Driving Licence: **B1**

Driving Licence: **B**

NETWORKS AND MEMBERSHIPS

Member of the Board of the Romanian Society of Electronic Microscopy (SMER)

[Bucharest, Current]

Member of the Romanian Society of Chemistry (SChR)

[Bucharest]