

PERSONAL INFORMATION

Bogdan Stefan VASILE

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Sex Male | Date of birth 27 Dec 1982 | Nationality Romanian



WORK EXPERIENCE

- 03/2018–Present **Personal Counselor Minister**
Ministry of Research and Innovation
Adviser on scientific research
Business or sector Administration
- 03/2010–Present **Scientific Researcher 3rd degree**
University Politehnica from Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest (Romania)
Research in the field of Materials Science, Biomaterials and Nanostructured Materials, research in the field of transmission electron microscopy and Responsible of the Transmission electron microscopy laboratory from the University POLITEHNICA from Bucharest
Business or sector Research
- 05/2008–03/2010 **Engineer**
University Politehnica from Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest (Romania)
Auxiliary didactic – Science and Engineering of Oxidic Materials and Nanomaterials
Business or sector Auxiliary Didactic, Research
- 03/2008–05/2008 **Scientific Researcher**
National Scientific Research Institute for Labour and Social Protection, Bucharest (Romania)
Research in Labour and Social Protection
Business or sector Research
- 07/2006–09/2007 **Scientific Researcher Assistant**
National Scientific Research Institute for Labor and Social Protection, Bucharest (Romania)
Research in Labor and Social Protection
Business or sector Research
- 05/2005–06/2006 **Computer operator**
National Scientific Research Institute for Labour and Social, Bucharest (Romania)
Data Entry Operator
Business or sector Research

EDUCATION AND TRAINING

- 2008–2011 **Doctor in Chemical Engineering**
University Politehnica from Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest (Romania)
ZrO₂ and Al₂O₃ based nanopowders and nanocomposites
- 2006–2008 **Master Diploma**
University Politehnica from Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest (Romania)
Composite Materials
- 2001–2006 **Engineer Diploma**
University Politehnica from Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest (Romania)
Physical Chemistry of Solid State, Binders Technology, Thermo-technologic Installation, Ceramic Technology
- 1997–2001 **Baccalaureate Diploma**
Dinicu Golescu College, Cîmpulung Muşcel (Romania)
Chimistry-Biology

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

| | UNDERSTANDING | | SPEAKING | | WRITING |
|---------|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C2 | C2 | C2 | C2 | C1 |
| German | A2 | A2 | A1 | A1 | A1 |

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills Ability to work in a team - experience of working in research or project teams, to effectively communicate with peoples with different backgrounds, Laboratory responsible and Advisory skills.

Organizational / managerial skills Ability to coordinate the team from the microscopy laboratory in order to achieve performance

Job-related skills/courses

Courses

Title: European Summer Workshop: Transmission Electron Microscopy of Nanomaterials (TEM-UCA 2017)

Dates – 17 – 21 July 2017

Title of qualification awarded - Certificate of completion

Principal subject/occupational skills covered - Transmission Electron Microscopy – Basics; Computer-Assisted Electron Crystallography; Introduction to Image Interpretation with Image Simulation; In-situ Transmission Electron Microscopy; Mapping Plasmons in STEM-EELS; Nanoparticles Modelling & Simulation; X-ray Energy Dispersive Spectroscopy: Basics; Aberration

Correction by Hardware in TEM; X-ray Energy Dispersive Spectroscopy – Practical Laboratory; Electron Energy Loss Spectroscopy; Electron Tomography with Practical Laboratory; Low-voltage TEM for 2D Materials; Advanced (S)TEM of Functional Oxides; Applications of (S)TEM to Catalytic Materials;

Name and type of organization providing education and training - University of Cadiz, Faculty of Science, Cadiz, Spain

Title: European EELS & EFTEM School

Dates – 07 – 10 February 2017

Title of qualification awarded - Certificate of completion

Principal subject/occupational skills covered - “EELS” – lectures and acquisition labs, EELS analysis labs; “EFTEM” – lectures, Filter and optics lecture, DM scripting lecture and tutorial, EFTEM acquisition lab, EFTEM analysis lab; “Spectrum Imaging and Advanced Techniques” – SI lectures, Advanced techniques SI, Advanced topics talk, SI acquisition labs, EELS analysis labs; “ASTEM” – specific lecture.

Name and type of organization providing education and training - Institute of Electron Microscopy and Nanoanalysis (FELMI), Graz University of Technology, Graz Centre for Electron Microscopy (ZFE), Austrian Cooperative Research (ACR), Graz, Austria

Title: Electron Tomography Course

Dates – 18 - 22 April 2016

Title of qualification awarded - Certificate of completion

Principal subject/occupational skills covered - Tomography Data Acquisition (Calibrations, Data acquisition); Reconstruction using Inspect3D (Basic theory, Alignment, Reconstruction, Visualization); Cryo Tomography (Low Dose, Zero Loss); New Developments (STEM Tomography, Energy Filtered Tomography).

Name and type of organization providing education and training - FEI Application Laboratory, Eindhoven, Nederland

Title: XRD Course

Dates – 24 – 28 June, 2013

Title of qualification awarded- X-Ray Diffraction certificate

Principal subject/occupational skills covered -XRD Course

Name and type of organization providing education and training - Panalitycal BV Europe (Univeristy Politehnica from Bucharest)

Title: European EELS & EFTEM School

Dates – 14 – 17 February 2012

Title of qualification awarded - Certificate of completion

Principal subject/occupational skills covered - “EELS” – lectures and acquisition labs, EELS analysis labs; “EFTEM” – lectures, Filter and optics lecture, DM scripting lecture and tutorial, EFTEM acquisition lab, EFTEM analysis lab; “Spectrum Imaging and Advanced Techniques” – SI lectures, Advanced techniques SI, Advanced topics talk, SI acquisition labs, EELS analysis labs; “ASTEM” – specific lecture.

Name and type of organization providing education and training - Institute of Electron Microscopy and Nanoanalysis (FELMI), Graz University of Technology, Graz Centre for Electron Microscopy (ZFE), Austrian Cooperative Research (ACR), Graz, Austria

Title: School and workshop on the Electron Microscopy of Ceramics Materials

Dates – 08 - 11 October 2009

Title of qualification awarded - Certificate of completion

Principal subject/occupational skills covered - Specimen Preparation Techniques, Introduction to FIB and Sample Preparation by FIB, Introduction to Scanning Electron Microscopy (SEM),

Introduction to Transmission Electron Microscopy (TEM), Electron Diffraction in the SEM and TEM, Advanced detection and imaging principles in the Field Emission SEM, Quantitative High Resolution Transmission Electron Microscopy, In-situ Transmission Electron Microscopy, Energy Dispersive X-ray Analysis (EDX) in SEM and TEM, Scanning Transmission Electron Microscopy (STEM), Analytical TEM-1: Electron Energy Loss Spectrometry (EELS) & Energy Filtered Transmission Electron Microscopy (EFTEM), Electron Backscatter Diffraction (EBSD) in Ceramic Materials, Tomography for Ceramic Materials, Interfaces in Ceramics: Challenges for Microscopy, (presenter C. Barry Carter), Dual EELS and new frontiers in analyzing ceramic materials, Spectroscopy and tomography of oxide glasses and glass-composite materials, TEM specimen preparation of ceramic materials by tripod wedge polishing and Ar - ion milling,

Name and type of organization providing education and training - Anadolu University, Eskisehir, Turkey

Title: Nanomaterials course

Dates – 25 - 28 Mai 2009

Title of qualification awarded - Certificate of completion

Principal subject/occupational skills covered – nanomaterials – general introduction, economic consideration; Consequences of small particle size; Synthesis of nanoparticulate materials; Catalytic and mechanical properties, surface and surface related properties; Magnetic, electrical, optical properties, nanotubes and related structures,

Name and type of organization providing education and training - Dieter Vollath / NanoConsulting, Bad Gastein, Austria

Trainings

Title: Versa 3D Application (SEM, FIB, EDS)

Dates – 08 – 12 February, 2016

Title of qualification awarded - Participation certificate

Principal subject/occupational skills covered - Basic operation of Versa 3D Dual beam microscope; Beam interaction and resulting signal; Ion beam – General operation; Cross-section milling, alignments, TEM sample preparation; EDS module operation; Cryo SEM operation;

Name and type of organization providing education and training - FEI Company, Bucharest, Romania (On-site Training)

Title: Titan Themis 200 for Materials science

Dates – 16 – 18 February, 2016

Title of qualification awarded - Participation certificate

Principal subject/occupational skills covered - High Resolution Transmission Electron Microscopy (HR-TEM); Image Corrector Tuning; High Resolution Scanning Transmission Electron Microscopy (HR-STEM); Energy Dispersive X-Ray Spectroscopy (EDX); Energy Electron Loss Spectroscopy (EELS); Lorenz in TEM; Chemi – STEM (EDX and EELS mapping);

Name and type of organization providing education and training - FEI Company, Bucharest, Romania (On-site Training)

Title: Titan Themis 200 for Life science (Sample Prep via VitroBot and Cryo-TEM)

Dates - 08 - 10 March 2016

Title of qualification awarded - Participation certificate

Principal subject/occupational skills covered - Cryo TEM Sample preparation and basic imaging; STEM/EDX Imaging and alignment (Optimizing and Aligning TEM and electron diffraction for cryo work; Contrast mechanisms in Cryo - TEM and dark field imaging; Low Dose Imaging); Tomography (Tomography data acquisition and 3D reconstruction).;

Name and type of organization providing education and training - FEI Company, Bucharest, Romania (On-site Training)

Title: Tecnai Materials Science Course

Dates - 15 - 19 June 2009

Title of qualification awarded - Participation certificate

Principal subject/occupational skills covered – High Resolution Transmission Electron Microscopy (HR-TEM); High Resolution Scanning Transmission Electron Microscopy (HR-STEM); Energy Dispersive X-Ray Spectroscopy (EDX); Energy Electron Loss Spectroscopy (EELS);

Name and type of organization providing education and training - FEI Application Laboratory, Eindhoven, Nederland

Title: Tecnai Basic Course

Dates - 10 - 14 November 2008

Title of qualification awarded - Participation certificate

Principal subject/occupational skills covered - Introduction, basic theory, Tecnai philosophy, Tecnai microscope, Modes of operation, Tecnai user interface, Tecnai user interface, TEM optimization, Microscope alignment, Microscope alignment, Microscope tasks, digital imaging.

Name and type of organization providing education and training - FEI Application Laboratory, Eindhoven, Nederland

Digital competence

| SELF-ASSESSMENT | | | | |
|------------------------|-----------------|------------------|-----------------|-----------------|
| Information processing | Communication | Content creation | Safety | Problem solving |
| Proficient user | Proficient user | Proficient user | Proficient user | Proficient user |

Digital competences - Self-assessment grid

ECDL Certificate

Other skills

Conducting practical laboratory work with students, research activities in the laboratory in what regards synthesis of nanopowders and nanostructured ceramics and characterization of these materials using X-Ray diffraction, scanning electron microscopy and transmission electron microscopy (High resolution electron microscopy, selected area electron diffraction, scanning transmission electron microscopy, energy dispersive X-ray spectroscopy with TEM, energy filtered electron microscopy and electron energy loss spectroscopy)

Researcher ID: B-8685-2011

URL: <http://www.researcherid.com/rid/B-8685-2011>

Driving licence

Yes, category - B

ANNEXES

- List of publications.

a) *PhD Thesis:ZrO₂ and Al₂O₃ based Nanopowders and nanocomposites*

b) *Books and Book Chapters:*

1. *Bi_{0.5}Na_{0.5}TiO₃ based piezoelectric ceramics*, Marin Cernea, Vasile B.S., Trusca R., Andronescu E., Politehnica Press, Bucuresti, 2014, ISBN: 978-606-515-562-6 (Book);
2. *Inorganic micro- and nanostructured implants for tissue engineering*, Neacsu, I.A., Nicoară, A.I., Vasile, O.R., Vasile, B.S., *Nanobiomaterials in Hard Tissue Engineering: Applications of Nanobiomaterials*, 10.1016/B978-0-323-42862-0.00009-2 (2016) (Book Chapter);
3. *Incorporation Mechanism and Functional Properties of Ce-Doped BaTiO₃ Ceramics Derived from Nanopowders Prepared by the Modified Pechini Method*, Ianculescu A.C., Berger D.C., Vasilescu C.A., Olariu M., Vasile B.S., Curecheriu L.P., Gajovic A., Trusca R., *Nanoscale Ferroelectrics and Multiferroics: Key Processing and Characterization Issues, and Nanoscale Effects, First Edition*. Edited by Miguel Alguero, J Marty Gregg and Liliana Mitoseriu. 2016 John Wiley & Sons, Ltd. Published 2016 by John Wiley & Sons, Ltd. ISBN: 978-7-118-93575-0 (Book Chapter);

c) *ISI Papers:*

1. *Combined use of Mossbauer spectroscopy, XPS, HRTEM, dielectric and anelastic spectroscopy for estimating incipient phase separation in lead titanate-based multiferroics*, Craciun, F., Cordero, F., Vasile, B.S., Fruth, V., Zaharescu M., Atkinson, I., Trusca, R., Diamandescu, L., Tanase, L.C., Galizia, P., Cernea, M., Galassi, C., *Physical chemistry chemical physics*, Volume 20, Issue 21, 2018, Pages 14652-14663, IF 4.123, DOI: 10.1039/c8cp01456f;
2. *Piezoelectric/ferromagnetic BNT-BT_{0.08}/CoFe₂O₄ coaxial core-shell composite nanotubes for nanoelectronic devices*, Cernea, M., Vasile, B.S., Surdu, V.A., Trusca, R., Sima, M., Craciun, F., Galassi, C., *Journal of Alloys and Compounds*, Volume 752, 2018, Pages 381-388, IF 3.133, DOI: 10.1016/j.jallcom.2018.04.146;
3. *Synthesis and characterization of CoFe₂O₄/BNT-BT_{0.08} core-shell nanotubes by a template based sol-gel method*, Cernea, M., Vasile, B.S., Surdu, V.A., Trusca, R., Craciun, C., Galassi, C., *Ceramics International*, Volume 44, Issue 9, 2018, Pages 10813-10819, IF 2.986, DOI: 10.1016/j.ceramint.2018.03.123;
4. *Microstructure of 800 keV Ar ion irradiated thin ZrC films*, Vasile, B.S., Craciun, D., Ionescu, P., Pantelica, D., Dorcioman, G., Craciun, V., *Applied Surface Science*, Volume 442, 2018, Pages 773-777, IF 3.387, DOI: 10.1016/j.apsusc.2018.02.216;
5. *Structural and physical properties of InAlAs quantum dots grown on GaAs*, Vasile, B.S., Daly, A.B., Craciun, D., Alexandrou, I., Lazar, S., Lemaître, A., Maaref, M.A., Iacomì, F., Craciun, V., *Physica B: Condensed Matter*, Volume 535, Pages 262-267, IF 1.386; DOI: 10.1016/j.physb.2017.07.054;
6. *Synthesis and characterization of novel ferrite-piezoelectric multiferroic core-shell-type structure*, Cernea, M., Vasile, B.S., Ciuchi, I.V., Surdu, V.A., Bartha, C., Iuga, A., Galizia, P., Galassi, C., *Journal of Materials Science*, Volume 53, Issue 13, 2018, Pages 9650-9661, IF 2.599, DOI: 10.1007/s10853-018-2264-x;
7. *Synthesis, characterization and biological activity of composite combinations of Cu(II), Fe(III) and Mn(III) with α-Ketoglutaric Acid and 1-(o-Tolyl) Biguanide*, Mihalache, M., Oprea, O., Vasile, B.S., Guran, C., Ardelean, I.L., Volume. 80, Issue., 1, 2018, Pages 113 – 126;
8. *Eu³⁺-doped ZnO nanostructures: advanced characterizations, photoluminescence and cytotoxic effect*, Vasile, B.S., Vasile, O.R., Ghițulică, C.D., Ilie, F.C., Nicoară, I.F., Trușca, R., Oprea, O., Surdu, V.A., Neacsu, I.A., *Rom J Morphol Embryol*, Volume 58, Issue 3, 2017, Pages, 941-952, IF 0.67;
9. *Collagen/TiO₂-Ag composite nanomaterials for antimicrobial applications*, Angela, S., Georgeta, V., Denisa, F., Ungureanu, C., Albu, M.G., Vasile, B.S., Ficăi, A., Andronescu, E., *University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science*, Volume 77, Issue 4, 2015, Pages: 275-290;
10. *Biomaterials based on functional graphene oxide and natural compounds with improved biocompatibility, biodistribution and low immunomodulatory effects*, Grumezescu, A. M.; Ficăi, A.; Ficăi, D.; Holban, A.M., Vasile B.S., Andronescu, E., *Febs Journal*, Volume: 284, 2017, Pages: 328
11. *Bioactive mesoporous silica nanostructures with anti-microbial and anti-biofilm properties*, Balaure, P.C., Boarca, B., Popescu, R.C., Savu, D., Trusca, R., Vasile, B.S., Grumezescu, A.M., Holban, A.M., Bolocan, A., Andronescu, E., *International Journal of Pharmaceutics*, Volume 531, Issue 1, 2017, Pages 35-46, IF 3.649, 10.1016/j.ijpharm.2017.08.062;
12. *Fabrication and cytotoxicity of gemcitabine-functionalized magnetite nanoparticles*, Popescu, R.C., Andronescu, E., Vasile, B.S., Trușcă, R., Boldeiu, A., Mogoantă, L., MogoSanu, G.D., Temelie, M., Radu, M., Grumezescu, A.M., Savu, D., *Molecules*, Volume 22, Issue 7, 2017, IF 2.861, 10.3390/molecules22071080, WOS:000406621300055;
13. *Development of Stabilized Magnetite Nanoparticles for Medical Applications*, Ardelean, I.L., Stoencea, L.B.N., Ficăi, D., Ficăi, A., Trusca, R., Vasile, B.S., Nechifor, G., Andronescu, E., *Journal of Nanomaterials*, Volume 2017, 2017, IF 1.871, WOS:000403116400001;
14. *Optical and structural properties in type-II InAlAs/AlGaAs quantum dots observed by photoluminescence, X-ray diffraction and transmission electron microscopy*, Ben Daly, A., Craciun, D., Laura Ursu, E., Lemaître, A., Maaref, M.A., Iacomì, F., Vasile, B.S., Craciun, V., *Superlattices and Microstructures*, Volume 110, 2017, Pages 1-9, IF 2.123; 10.1016/j.spmi.2017.08.017;
15. *Thin coatings based on ZnO@C18-usnic acid nanoparticles prepared by MAPLE inhibit the development of Salmonella enterica early biofilm growth*, Stan, M.S., Constanda, S., Grumezescu, V., Andronescu, E., Ene, A.M., Holban, A.M., Vasile, B.S., Mogoantă, L., BĂlășeanu, T.-A., MogoSanu, G.D., Socol, G., Grumezescu, A.M., Dinischiotu, A., Lazar, V., Chifiriuc, M.C., *Applied Surface Science*, Volume 374, 2016, Pages 318-325, IF 3.387, WOS:000375937300049;

16. *Mesoporous silica coatings for cephalosporin active release at the bone-implant interface*, Rădulescu, D., Voicu, G., Oprea, A.E., Andronescu, E., Grumezescu, V., Holban, A.M., **Vasile, B.S.**, Surdu, A.V., Grumezescu, A.M., Socol, G., Mogoantă, L., MogoSanu, G.D., Balaure, P.C., Rădulescu, R., Chifiriuc, M.C., Applied Surface Science, Volume 374, Issue , 2016, Pages 165-171, IF 3.387, WOS:000375937300027;
17. *Antimicrobial nanostructured bioactive coating based on Fe₃O₄ and patchouli oil for wound dressing*, Rădulescu, M., Andronescu, E., Holban, A.M., **Vasile, B.S.**, Iordache, F., Mogoantă, L., Dan MogoSanu, G., Grumezescu, A.M., Georgescu, M., Chifiriuc, M.C., Metals, Volume 6, Issue 5, 2016, IF 1.984, WOS:000378861000009;
18. *Synthesis of cobalt ferrite nanoparticles via a sol-gel combustion method*, RA, Bortnic; F, Goga; A, Mesaros; M, Nasui; **B.S. Vasile**; D, Roxana; A, Avram, Studia universitatis babes-bolyai chemia, Volume 61, Issue 4, Pages 213-222, 2016, IF 0.244, WOS:000393578800017;
19. *Characteristics of Ce³⁺-doped barium titanate nanoshell tubes prepared by template-mediated colloidal chemistry*, Journal of the european ceramic society, AC, Ianculescu; CA, Vasilescu; L, Trupina; **B.S. Vasile**; R, Trusca, M, Cernea; L, Pintilie; A, Nicoara, Journal of the european ceramic society, Volume 36, issue 7, Pages 1633-1642, 2016, IF 3.411, WOS:000372381300012;
20. *Synthesis of silver secondary shell magnetic nanoparticles*, Mihaiescu, D.E., Gudovan, D., Traistaru, V., Ionescu, P., Fudulu, A., Voicu, G., Ficai, A., TruScă, R., Istrati, D., Marton, A., Buteica, S.A., **Vasile, B.**, Andronescu, E., Revue Roumaine de Chimie, Volume 61, Issue 2, 2016, Pages 105-110, IF 0.246, WOS:000378984200005;
21. *Optical and photocatalytic properties of copper(II) doped zinc oxide*, Radulescu, M., Arsenie, L.V., Oprea, O., **Vasile, B.S.**, Revista de Chimie, Volume 67, Issue 12, 2016, Pages 2596-2599, IF 1.232, WOS:000393230400042;
22. *Multifunctional materials such as MCM-41/Fe₃O₄/folic acid as drug delivery system*, Popescu, S., Ardelean, I.L., Gudovan, D., Rădulescu, M., Ficai, D., Ficai, A., **Vasile, B.S.**, Andronescu, E., Romanian Journal of Morphology and Embryology, Volume 57, Issue 2, 2016, Pages 483-489, IF 0.67, WOS:000381899000018;
23. *High temperature superconducting materials based on Graphene / YBCO nanocomposite*, Colie, M., Mihaiescu, D., Surdu, A., Trusca, R., **Vasile, B.**, Istrati, D., Ficai, A., Plapcianu, C., Andronescu, E., Materials Today: Proceedings, Volume 3, Issue 8, 2016 Pages 2628-2634, IF 0.71, WOS:000398483700007;
24. *Structural and characterisation analysis of zinc-substituted hydroxyapatite with wet chemical precipitation method*, Karacan, I., Senturk, D., Oktar, F.N., Ficai, A., Ficai, D., Trusca, R., **Vasile, B.S.**, Gokce, H., Ozuyar, H.D., Gunduz, O., International Journal of Nano and Biomaterials, Volume 6, Issue 42798, 2016, Pages 188-204, IF 0.19;
25. *Biocompatible 3d matrix with antimicrobial properties*, Ion, A., Andronescu, E., Rădulescu, D., Radulescu, M., Iordache, F., **Vasile, B.S.**, Surdu, A.V., Albu, M.G., Maniu, H., Chifiriuc, M.C., Grumezescu, A.M., Holban, A.M., Molecules, Volume 21, Issue 1, 2016, Article number 21010115, 10.3390/molecules21010115, IF 2.861, WOS:000369486800043;
26. *Structural and mechanical properties changes induced in nanocrystalline ZrC thin films by Ar ion irradiation*, Craciun, D., Socol, G., Simeone, D., Behdad, S., Boesl, B., **Vasile, B.S.**, Craciun, V., Journal of Nuclear Materials, Volume 468, 2016, Pages 78-83, IF 2.048, 10.1016/j.jnucmat.2015.11.012, WOS:000367761700010;
27. *Influence of the size and the morphology of ZnO nanoparticles on cell viability*, Vasile, O.R., Serdaru, I., Andronescu, E., Truscă, R., Surdu, V.A., Oprea, O., Ilie, A., **Vasile, B.S.**, Comptes Rendus Chimie, Volume 18, Issue 12, 2015, Pages 1335-1343 IF 1.879, 10.1016/j.crci.2015.08.005, WOS:000368050300012;
28. *Characteristics of 5 mol% Ce³⁺-doped barium titanate nanowires prepared by a combined route involving sol-gel chemistry and polycarbonate membrane-templated process*, Vasilescu, C.-A., Trupina, L., **Vasile, B.S.**, Trusca, R., Cernea, M., Ianculescu, A.-C., Journal of Nanoparticle Research, 2015, 17:434, 10.1007/s11051-015-3241-9, IF 2.02, WOS:000370143800002;
29. *Hydrothermal Synthesis of SrTiO₃: Role of Interfaces*, Kalyani, V., **Vasile, B.S.**, Ianculescu, A., Testino, A., Carino, A., Buscaglia, M.T., Buscaglia, V., Nanni, P., Crystal Growth and Design, Volume 15, Issue 12, 2015, Pages 5712–5725, IF 4.055, 10.1021/acs.cgd.5b00770 (2015), WOS:000365930300012;
30. *Novel nanostructured molecular sieves of silica with included titanium dioxide: Preparation and characteristics*, Al Tameemi, M.B.M., Mihaiescu, D., Stan, R., Meghea, A., Voicu, G., **Vasile, B.S.**, Traistaru, V., Istrati, D., Digest Journal of Nanomaterials and Biostructures, Volume 10, Issue 4, Pages 1229-1235, 2015, IF 0.836, WOS:000366264800012;
31. *Vinyltrimethoxysilane-modified zinc oxide quantum dots with tuned optical properties*, Tabacaru, A., Musat, V., Tigau, N., **Vasile, B.S.**, Surdu, V.-A., Applied Surface Science, Volume 359, Issue 30, 2015, Pages 766-773, IF 3.38, WOS:000366220600102;
32. *Synthesis, characterization and testing of MCM-41/TiO₂ catalyst for organic dye degradation*, M, Sonmez; D, Gudovan; R, Trusca; A, Ficai; D, Ficai; E, Andronescu; **B.S. Vasile**, Digest journal of nanomaterials and biostructures, Volume 10, Issue 4, Pages 1329-1341, 2015, IF 0.836, WOS:000366264800022;
33. *Synthesis, structural and electrical properties of BN-BTCe@SiO₂ core-shell heterostructure*, M, Cernea; **B.S. Vasile**; IV, Ciuchi; A, Iuga; E, Alexandrescu; J, Pinteau; C, Galassi, Science of advanced materials, Volume 7, Issue 11, Pages 2297-2305, 2015, IF 1.671, WOS:000366295900005;
34. *Biocompatible hydrodispersible magnetite nanoparticles used as antibiotic drug carriers*, A, Bolocan; DE, Mihaiescu; E, Andronescu; G, Voicu; AM, Grumezescu; A, Ficai; **BS, Vasile**; C, Bleotu; MC, Chifiriuc; CS, Pop, Romanian journal of morphology and embryology, Volume 56, Issue 2, Pages 365-370, 2015, IF 0.67, WOS:000358559400004;
35. *Kinetic studies on the hydrothermal crystallization of Co-doped nanostructured TiO₂ anatase with ferromagnetic properties*, RR, Piticescu; SN, Valsan; M, Petriceanu; V, Badilita; IA, Tudor; D, Taloi; **B.S. Vasile**, O, Raita, Journal of optoelectronics and advances materials, Volume 17, Issue 5-6, Pages 646-654, 2015, IF 0.449, WOS:000357766600021;
36. *Composite scaffolds based on silver nanoparticles for biomedical applications*, JM, Patrascu; IA, Nedelcu; M, Sonmez; D, Ficai; A, Ficai; **B.S. Vasile**; C, Ungureanu; MG, Albu; B, Andor; E, Andronescu; LC, Rusu; Journal of nanomaterials, 2015, 10.1155/2015/587989, IF 1.871, WOS:000363133500001;

37. *A valence states approach for luminescence enhancement by low dopant concentration in Eu-doped ZnO nanoparticles*, Mesaros A., Toloman D., Nasui M., Mos R.B., Petrisor T., **Vasile B.S.**, Surdu V.A., Perhaita I., Biris A., Pana O., Journal of Materials Science, 10.1007/s10853-015-9157-z (2015), IF 2.599, CCC:000356775900015;
38. *Formation mechanism and characteristics of lanthanum-doped BaTiO₃ powders and ceramics prepared by the sol-gel process*, Ianculescu A.C., Vasilescu C.A., Crisan M., Raileanu M., **Vasile B.S.**, Calugaru M., Crisan D., Dragan N., Curecheriu L., Mitoseriu L., Materials Characterization, 10.1016/j.matchar.2015.05.022, IF 2.714, WOS:000360417200023;
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3. *A new route for synthesis of macroporous granular silver*, Adrian STROIA , Cristian MATEI, **Bogdan S. VASILE**, Ovidiu OPREA, Cristina COVALIU, Ioana JITARU, 17th Romanian International Conference on Chemistry and Chemical Engineering September 7 – 10, 2011, Sinaia – Romania;
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8. *Structural investigations on yttria - doped zirconia nanopowders obtained by sol-gel method*, **B. S. Vasile**, Student Speech Contest, 10th International Conference and Exhibition of the European Ceramic Society, June 17 - 21, 2007, Berlin.

e) Proceedings:

1. *TEM Characterization of stabilised zirconia nanopowders*, **Bogdan S. Vasile**, Cristina Ghitulica, Ecaterina Andronescu, Otilia R. Vasile, I. International Ceramic, Glass, Porcelain, Enamel, Glaze and Pigment Congress, 12-14 October 2009, Eskisehir, Turkey, ISBN 978-975-94814-7-6.
2. *Pd nanoparticles synthesis with controlled morphology obtained by polyol method*, Daniela Berger, Gina Alina Trăistaru, **Bogdan Vasile**, Ioana Jitaru, Cristian Matei, 16th Romanian International Conference on Chemistry and Chemical Engineering, September 9 – 12, 2009, Sinaia – Romania;
3. *Structural investigation on yttria doped zirconia nanocrystalites obtained through pirosol method*, **B.S. Vasile**, Ecaterina Andronescu, Cristina Ghitulica, Raluca Dobranis, Georgeta Pall, Roxana Trusca, 16th Romanian International Conference on Chemistry and Chemical Engineering September 9 – 12, 2009, Sinaia – Romania;
4. *Dental ceramics for opaque restorations*, **B. S. Vasile**, Ecaterina Andronescu, Cristina Ghitulica, Oana Nicola, The 15th Romanian International Conference on Chemistry and Chemical Engineering, September 19 – 22, 2007.

f) Patents:

1. Denisa FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, Anton FICAI, Ovidiu OPREA, Bogdan Stefan VASILE, Procedeu de obtinere de sisteme multifunctionale de tip magnetita/tioacizi/Ag sau Au, utilizate pentru diagnoza si tratamentul dirijat al cancerului, Nr. 129824.

g) Certificate:



Certificate

This is to certify that
Bogdan Stefan Vasile

has participated in the

Tecnai Basic Course

at the **FEI Application Laboratory in Eindhoven, the Netherlands**

November 10 – 14, 2008

Course Leader


Matthijn Vos

FEI Academy Manager


Eric Bathelt

 **FEI COMPANY™**

NanoConsulting
Dieter Vollath



Certificate

From May 25 to May 28, 2009

Bogdan Stefan Vasile

attended the course

Nanomaterials

and participated the group work successfully.

Bad Gastein, May 28, 2009


Prof. Dr. Dieter Vollath

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"Titan Themis 200 on-site Life Science Training Course - Vitrobot and Cryo-TEM"

held at University POLITEHNICA Bucharest, March 08 - 10, 2016.

The course's Instructor: **dr. Maarten Wirix** - Research Scientist TEM, FEI Company.

Covered topics:

CryoTEM sample preparation and basic imaging

- Preparation of cryogen
- Vitrobot and vitrification
- Cryo-TEM imaging

STEMEDS imaging and alignment

- Optimizing & Aligning TEM and electron diffraction for cryo work
- Contrast mechanisms in cryo-TEM and dark field imaging
- Low dose imaging

Tomography

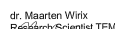
- Tomography Data Acquisition
- Reconstruction using Inspect3D

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"On-site Training Course - Titan Themis 200 for Materials Science"

held at University POLITEHNICA Bucharest, February 16 - 18, 2016.

The course's Instructor: **dr. Sorin LAZAR** - Senior Research Scientist FEI Company.

Covered topics:

- o HR TEM
- o Image Corrector Tuning
- o HR STEM
- o Optic Condenser System
- o EDX Esprit
- o CETA Image Acquisition
- o EELS
- o Velox
- o Lorentz Imaging
- o STEM, EDX and EELS Mapping

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dr. eng. Rodica STOIAN
General Manager

FEI COMPANY

NanoPort Europe


dr. Sorin LAZAR
Senior Research Scientist

Certificate

We, Ronexprim SRL, hereby confirm that **dr.eng. Bogdan Stefan VASILE** has attended the

**"On-site Training Course - SEM, FIB and EDS
for Versa 3D"**

held in University POLITEHNICA Bucharest, February 06 - 12, 2016.

The course's Instructor: **dr. Ellen BAKEN** - Senior Application Specialist FEI Company.

The course has covered the underlying principles and practical aspects of SEM Versa 3D. Loading and unloading samples, the formation of the SEM image, detector use, stage navigation, aligning the beams and milling a cross-section has been covered in the lectures and practical exercises.

Covered topics:

- The instrument
 - o Introduction to the GUI
 - o Stage navigation
- Electron beam
 - o Types of interaction and resulting signals
- Ion beam
 - o General operation
- Technical and sample related topics
 - o Milling a cross-section
 - o Alignment
 - o TEM sample preparation
- EDS module
 - o Interaction and resulting signals

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dr. Bogdan STYGIAN
General Manager



FEI COMPANY

NanoPort Europe

dr. Ellen BAKEN
Senior Application Specialist

X-Ray Diffraction Certificate

This is to certify that

Bogdan Stefan VASILE

has successfully completed the

XRD Course 24th – 28th June 2013

Held at UNIVERSITATEA POLITEHNICA DIN BUCURESTI



Signature of course tutor: Marco Sommariva

Date: 28th June 2013