


PERSONAL INFORMATION **Bogdan Stefan VASILE**

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



## WORK EXPERIENCE

- 01/2023-Present **Senior Researcher II**  
**Head of the Structural Analysis and Microscopy Laboratory**  
University Politehnica from Bucharest, Research Center for Advanced Materials, Products and Processes, 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
- 03/2013–12/2022 **Senior Researcher III**  
**Head of the Structural Analysis and Microscopy Laboratory**  
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
- 10/2021–Present **Assistant professor**  
University of Agronomic Sciences and Veterinary Medicine of Bucharest, Faculty of Animal Productions Engineering and Management  
Master and diploma courses and practical laboratories  
[Business or sector](#) Higher Education
- 08/2019 - Present **Founder, manager**  
**HTP Research & Consulting**  
HTP Research & Consulting  
Research consultancy business  
[Business or sector](#) Research
- 03/2018–08/2018 **Personal Counselor for Minister**  
Ministry of Research and Innovation  
Adviser on scientific research  
[Business or sector](#) Administration
- 07/2017–Present **Technical Manager**  
University Politehnica from Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest (Romania)  
National Research Center for Food Safety  
[Business or sector](#) Research
- 11/2014–Present **Technical Manager**

University Politehnica from Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest (Romania)

National Research Center for Micro and Nanomaterials

**Business or sector** Research

01.05/2008–03/2013

### 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

07/2006–03/2008

### 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

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2006–2011

### Doctor in Chemical Engineering

University Politehnica from Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest (Romania)

ZrO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> 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 Mușcel (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 Coordinator of Advanced structural Laboratory at UPB, Technical Manager of National Research Center for Micro And Nanomaterials and National Research Center for Food Safety

Job-related skills/courses **Courses**

**Title: public procurement expert, AUTHORIZED A.N.C., October 2021**

**Principal subject/occupational skills covered:** the national legislative authority in the field of public procurement; Primary legislation (Law no. 98/2016 on public procurement, O.U.G. no. 98/2017 on the function of ex-ante control of the process of awarding contracts/agreements - public procurement framework, of contracts/agreements - sectoral framework and of contracts of works concession and service concession, etc.), secondary (H.G. no. 395/2016 for the approval of the Methodological Norms for the application of the provisions relating to the awarding of the public procurement contract/framework agreement from Law no. 98/2016 on public procurement , etc.); tertiary (Orders, Instructions of the President of A.N.A.P., etc.); The principles and planning of public procurement, drawing up the PAAP; General rules for participation and conduct of award procedures; Assignment documentation; Developing the skills of drawing up the award documentation; Establishing the qualification and selection criteria, the documents to be presented by the tenderer/candidate in order to fulfill the respective criteria; Establishing the award criteria for determining the most advantageous offer from an economic point of view; Establishing the participation guarantee and the good execution guarantee; Requirements regarding the presentation and submission of the offer, as well as its validity period; Realization of public procurement; Choice of modalities and award procedures; Transparency rules; Carrying out award procedures; The offer and accompanying documents; Notions regarding the way to prepare and present the offer; The technical proposal; Financial proposal; Evaluation of offers; The evaluation commission and its working method; Completion of the award procedure; Cases of cancellation of the award procedure; The acquisition file and the award procedure report; Execution of the public procurement contract/framework agreement; Modification of the public procurement contract/framework agreement; Specific cases of termination of the public procurement contract; Misdemeanors and penalties; Presentation of the methods of resolving appeals (Law no. 101/2016 on remedies and appeals in the matter of awarding public procurement contracts, sectoral contracts and works concession contracts and service concession contracts, as well as for the organization and operation to the National Council for the Resolution of Appeals).

**Title: Formator Course (Trainer), COR 242401, March 2019**

**Principal subject/occupational skills covered:** preliminary notions, preparation and logistics of training programs; designing and building training programs, making up the course design; the development and delivery of various types of training programs: workshops, seminars, open courses,

customized courses for companies, training, presentations, on-the-job training, induction, qualification/specialization/improvement courses; evaluation of training program participants; the applied communication module for the delivery of training programs; public speaking techniques adapted for training programs; classical and modern memorization techniques and training methods; emotion management module (first aid methods, training methods).; how to manage difficult situations (difficult courses, difficult learners); commercial approach module (selling courses to companies).

**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>

Additional Information

Fields of interests	Nanomaterials, thin films, advanced characterization techniques (Transmission electron microscopy (HRTEM, TEM, SAED, EELS, STEM, EDXS), Scanning electron microscopy, X-Ray diffraction, spectroscopy/spectrometry), Materials for energy, etc.
Publications	Over 220 ISI Papers, more than 188 ISI cumulated factor, 26 principal author, H index 32 (see Annex)
Prizes and Awards:	<p><b>4th International Invention Innovation Competition in Canada – Ican 2019; August 23-24, Toronto, Canada</b></p> <p>“Magnetite/thioacids@Ag or Au multifunctional systems used for diagnosis and cancer”, Denisa FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, Anton FIC Bogdan Stefan VASILE A/00238/2013) “Gold medal” awarded by the International Jury of ICan 2019 “Special Prize and Excellence diploma” awarded by the Moroccan Delegation </p> <p><b>International Salon for Scientific Research, Innovation and Inventions, “ProInvent”, 20-22 March 2019, Cluj Napoca, Romania</b></p> <p>“Magnetite/thioacids@Ag or Au multifunctional systems used for diagnosis and targeted delivery in cancer”, Denisa FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, Anton FICAI, Ovidiu OPREA, Bogdan Stefan VASILE A/00238/2013) “Excellence diploma and Gold medal” awarded by the International Jury of ProInvent “Special Prize and Excellence diploma” awarded by University of Agronomic Science and Veterinary Medicine, Bucharest “Excellence diploma with special mention” awarded by State University of Medicine and Pharmacy „Nicolae Testemițanu”, Moldova</p> <p><b>Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition - Thailand Inventors' Day 2019" 2-6 February 2019</b></p> <p>“Magnetite/thioacids@Ag or Au multifunctional systems used for diagnosis and targeted delivery in cancer”, Denisa FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, Anton FICAI, Ovidiu OPREA, Bogdan Stefan VASILE A/00238/2013) “Gold medal” awarded by the International Jury of IPITEX “Special Award” awarded by Advanced Tech Smart</p> <p><b>World Competition of Chemical Inventions IWIS2018_15-17Oct 2018, Page 14/32 - Warsaw, Poland</b></p> <p>“Silver Medal” for the patent “Magnetite/thioacids@Ag or Au multifunctional systems used for diagnosis and targeted delivery in cancer”, Denisa FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, Anton FICAI, Ovidiu OPREA, Bogdan Stefan VASILE A/00238/2013)</p> <p><b>20th International Conference on Synthetic Polymer Chemistry, Nanoscience and Nanotechnology - ICSPCNN 2018:</b></p> <p>Certificate of Best Presentation Award for the paper „Synthesis and Characterization of Some Alginate Hollow Fibres Using Co-Axial Needles” authored by Anton Fikai, Ioana Lavinia Ardelean, Roxana Doina Trusca, Bogdan Stefan Vasile, Denisa Fikai, Ecaterina Andronescu</p> <p><b>Salonul Internațional de Invenții și Inovații “Traian VUIA”, Timișoara, Romania, 2018</b></p> <p>“Excellence Diploma” awarded by Banat’s University of Agricultural Sciences and Veterinary Medicine “King Michael I of Romania”, Timișoara (for the researches in the medical field for the authors A. Fikai, D. Fikai, M Sonmez, O Oprea, BS Vasile, S Manea, AM Pangica, P Bodoga, C Agapescu, C.D. Ghitulica, E Andronescu;</p> <p><b>Best paper awarded by ASET during 8 TH International Conference on Nanotechnology: Fundamentals and Applications - ICNFA’17 held at Rome, Italy for the paper Design of TiOxNy for coating technology, Anton Fikai, Denisa Fikai, Bogdan Stefan Vasile, Roxana Doina Trusca, Dragos Gudovan, Ovidiu Oprea, Motelica Ludmila, Ecaterina Andronescu</b></p>
ISSUED PATENTS	Denisa FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, Anton FICAI, Ovidiu OPREA, Bogdan Stefan VASILE, Multifunction systems of the magnetite/thioacids/Ag or Au type, to be employed in cancer diagnosis and guided treatment / Sisteme multifuncționale de tip magnetita/tioacizi/Ag sau Au, utilizate pentru diagnoza și tratamentul dirijat al cancerului, A/00238/2013 (RO129824 (A2); RO129824B1); Ianculescu Adelina-Carmen [RO]; Stanciu Cătălina-Andreea [RO]; Vasile Bogdan Ștefan [RO]; Trușcă Roxana Doina [RO]; Nicoară Adrian Ionuț [RO]; Eftimie Mihai Alexandru [RO]; Surdu Vasile-Adrian [RO] , Procedeu de obținere a unor nanostructuri unidimensionale de batiodopat cu ceriu cu caracteristici feroelectrice și piezoelectrice, B82B3/00 (RO) (RO133773 (A0) (RO133773 (B1))
Patent Application	Cristina Chircov, Alexandra Catalina Birca, Bogdan Ștefan VASILE, Alexandru, Mihai GRUMEZESCU, Configurație multifuncțională microfluidică pentru sinteza nanoparticulelor, A/00476, 2022
Granted contracts	More than 42 research projects (2 international/transnational as project manager, 4 national as Project Responsible and 36 involved as key person). See annex.

Drivers Licence Yes, category - B

ANNEXES

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- List of publications and certificates.

Data  
12.07.2023





a) *PhDThesys: Nanopulberi și nanocompozite pe bază de ZrO2 și Al2O3*

b) *Projects*

**Director/Responsible**

**a. EU Projects;**

- Re-generating (raw) materials and end-of-life products for re-use in Cement/Concrete (RECEMENT), UEFISCDI – European and International Cooperation, Subprogram 3.2. Horizon 2020, Contract No. 115/2019 (2019-2022) – Project Manager;
- Creating National Research Center for Food Safety CNpSA, ID 1970, SMIS 48652 (2014-2015) – Implementation responsible;

**b. National projects;**

- Innovative Concept of Proton Exchange Membrane Electrochemical Hydrogen Compressor for Hydrogen Refueling Station (2022-2024), 719PED/2022.
- Nanostructured sondes for diagnostics, (2018-2020) – Component project Responsible;
- Advanced ceramic thermal barrier coatings developed by EB-PVD combinatorial deposition technique, (2017-2019) – project Responsible;
- Technologies for the recovery of sludge from urban waste water treatment plants and waste from waste dumps, (2017 – 2018) – project Responsible.

**Key Person**

No.	Project code	Title	Acronim	Beginning date	Ending date
1	PN-III-P4-PCE-2021-1240	Integrating mechanically-tunable 3D printing with new bioactive multi(nano)materials for next functional personalized bone regenerative scaffolds	Next3DBone	2022-06-02	2024-12-31
2	COFUND-ERAMIN-3-PHIGO	Thermal Processing of P-rich ashes aiming for HIGH-GRADE PHOSPHORUS Products	PHIGO	2022-03-01	2024-12-31
3	PN-III-P2-2.1-PED-2021-1776	Personalized dressing platform based on smart materials for wound management	DRESMATER	2022-09-01	2024-08-31
4	PN-III-P2-2.1-PED-2021-1788	Innovative nanostructured nutraceuticals with synergistic bioactivities for hepato-digestive protection	NUTRASINPRO	2022-07-01	2024-06-30
5	PN-III-P2-2.1-PED-2021-2526	Long-Lasting Innovative NanoCoatings for hEriTage preservation	LANCET	2022-06-28	2024-06-27
6	PN-III-P2-2.1-PED-2021-3177	Superior recovery of recycled polyethylene by compounding with chemically modified starch and nanopowders in order to obtain materials with antimicrobial properties for RepRap 3D printers	ECOPRINT3D	2022-06-21	2024-06-20
7	PN-III-P2-2.1-PED-2021-0627	Innovative multifunctional composites for the protection of cultural heritage objects	INHERITAGE	2022-06-29	2024-06-20
8	PN-III-P2-2.1-PED-2021-3414	Innovative antimicrobial food packages for advanced food security	NanoSafePack	2022-06-21	2024-06-20
9	PN-III-P1-1.1-TE-2021-1342	Magnetic smart drug delivery systems for theranostic using a personalized approach	SmartACT	2022-05-15	2024-05-14
10	PN-III-P4-ID-PCCF-2016-0047	Controlling the electronic properties in heterostructures based on ferroelectric perovskites: from theory to applications	CEPROFER	2018-10-10	2022-11-30
11	ERANET-MANUNET-AMMBI	Additive Manufacturing of Magnesiumbased Biodegradable Implants with Controlled Corrosion Rate and Infection	AMMBI	2020-11-16	2022-11-15
12	PN-III-P2-2.1-PED-2019-4813	Exploitation of the magnetic nanoparticles in developing magnetic micro-devices	MagneticMicro Dev	2020-10-23	2022-10-21
13	PN-III-P2-2.1-PED-2019-4018	Evaluation of the exploitation potential Potential of Porous Materials in the tREatment of Microbiota-related dISeasEs - PREMISE	PREMISE	2020-10-23	2022-10-20
14	PN-III-P1-1.1-TE-2019-1450	Multifunctional lab-on-a-chip microfluidic platform for the fabrication of nanoparticles	NANOCHIP	2020-09-07	2022-09-06
15	PN-III-P2-2.1-PED-2019-4569	COLD PLASMA FOR FLUORIDE RETENTION IMPROVEMENT AND BIOFILM MODULATION IN DENTAL APPLICATION	PlasmaDent	2020-08-14	2022-08-13
16	PN-III-P2-2.1-PED-2019-1375	Development of novel antiseptics based on zinc oxide for clinical wound management	MANAGEWOUND	2020-08-03	2022-08-02
17	COFUND-ERANET-ERAMIN-Deasphor	Design of a product for SUBSTITUTION of phosphate rocks	Deasphor	2018-04-01	2022-03-31
18	PN-III-P1-1.2-PCCDI-2017-0689	Lib2Life- The revival of libraries and cultural heritage through advanced technologies	Lib2Life	2018-04-02	2021-09-30
19	PN-III-P1-1.2-PCCDI-2017-0629	INNOVATIVE BIONANOMATERIALS FOR TREATMENT AND DIAGNOSIS	BIONANOINO V	2018-03-31	2021-09-30
20	PN-III-P1-1.2-PCCDI-2017-0697	Intelligent therapies for non-communicable diseases based on controlled release of pharmacological compounds from encapsulated engineered cells and targeted bionanoparticles	INTERA	2018-04-02	2021-09-30
21	PN-III-P1-1.2-PCCDI-2017-0749	Bioactive nanostructures for innovative therapeutic strategies	NANO-LIFE	2018-04-16	2021-05-31
22	PN-III-P1-1.2-PCCDI-2017-0185	Eco-innovative technologies for recovering of the platinum group metals from scrap catalytic converters	ECOTECH-GMP	2018-03-01	2021-04-30
23	PN-III-P4-ID-PCE-2016-0072	Controlled functionalities in multiscale BaTiO3-based systems by combining microstructural design and doping strategy	BATIFER	2017-07-12	2019-12-31

24	PN-III-P2-2.1-PTE-2016-0177	Composite hydrogels based on inorganic nanoparticles and collagen with prolonged antimicrobial activity for the prevention of wound infections	NanoColaGel	2016-10-06	2018-11-30
25	PN-III-P2-2.1-PTE-2016-0156	Recovery of recycled thermoplastic polymers by reinforcement with functionalized natural fibres to obtain new added value products	VALPOLYMER	2016-10-06	2018-10-04
26	PN-III-P2-2.1-PTE-2016-0146	New nanostructured polymeric composites for centre pivot liners, centre plate and other components for the railway industry	RONERANANOSTRUCT	2016-10-06	2018-10-04
27	ERA-MANUNET-ARHNANOTPV	Multiphase elasto-plastic architectures dynamically vulcanized and reinforced with nanoparticles for specific products used in food and pharmaceutical industries	ARHNANOTPV	2015-11-02	2018-10-01
28	PN-III-P2-2.1-PED-2016-0630	PROTON EXCHANGE MEMBRANE FUEL CELLS BASED ON NITROGEN-DOPED NANOCARBONS	NITRO-NANOC-FC	2017-01-03	2018-06-30
29	PN-II-PT-PCCA-2013-4-1374	Optical Nanofabrication in the domain 5 nm - 50 nm	NANOFAB	2014-07-01	2017-09-30
30	PN-II-PT-PCCA-2013-4-0891	Innovative dental products with multiple applications	LavEndo	2014-07-01	2017-09-30
31	PN-II-PT-PCCA-2013-4-0270	RECONSTRUCTION OF THE LIGAMENTS USING ADVANCED STRUCTURED MATERIALS BASED ON LIGASINT NATURAL AND SYNTHETIC POLYMERS	LIGASINT	2014-07-01	2017-09-30
32	PN-II-PT-PCCA-2013-4-0470	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.	OPTIPYROGRAD	2014-07-01	2017-09-30
33	PN-II-PT-PCCA-2013-4-0584	New ocular implant with high biocompatibility and proliferation rate	ORBIMPLANT	2014-07-01	2017-09-30
34	PN-II-PT-PCCA-2011-3.2-0210	Petabyte Optical Disc	PETOPT	2012-07-02	2016-12-30
35	PN-II-PT-PCCA-2011-3.1-0209	Complex ferromagnetic/antiferromagnetic nanostructures with improved magnetic properties for data storage applications obtained by sequential laser deposition	FANLAS	2012-07-02	2016-12-12
36	PN-II-PT-PCCA-2011-3.1-0031	Oxide nanomaterials with photocatalytic properties applied in the advanced degradation of the xenobiotic compounds in the water	NATIXEN	2012-07-02	2016-10-30
37	PN-II-ID-PCE-2011-3-0668	Size effects, formation mechanisms, and properties in micro- and nanostructured perovskite ferroic systems prepared by alternative methods		2011-10-05	2016-10-04
38	PN-II-PT-PCCA-2011-3.2-0284	Novel nanostructured prosthetic tubular devices with antibacterial and antibiofilm properties induced by physico-chemical and morphological changes	AntiBioTube	2012-07-26	2016-09-16
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  16. **Synthesis and characterization of alumina nano-powder obtained by sol-gel method**, Rodica ROGOJAN, Ecaterina ANDRONESCU, Cristina GHITULICĂ, **Bogdan Ștefan VASILE**, U.P.B. Sci. Bull., Series B, 2011, Volume 73, Issue 2, Pages 67-76.
  17. **Poly Bis-Gma/Ha based hybrid composite materials**, Maria FICAI1, Ecaterina ANDRONESCU2, Anton FICAI, Georgeta VOICU, **Bogdan Ștefan VASILE**, U.P.B. Sci. Bull., Series B, 2011, Volume 73, Issue 1, Pages 75-84.
  18. **Palladium Nanoparticles Synthesis with Controlled Morphology by Polyol Method**, Daniela Berger, Gina Alina Trăistaru, **Bogdan Ștefan Vasile**, Ioana Jitaru, Cristian Matei, U.P.B. Sci. Bull., Series B, 2010, Volume 72, Issue 1, Pages 113-120.

f) **Proceedings:**

1. **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, 2016, Volume 3, Issue 8, Pages 2628-2634, 10.1016/j.matpr.2016.06.006, WOS:000398483700007.
2. **Antibiotic Incidence, Distribution and Resistance in Wastewaters**, Anton Ficai, Denisa Ficai, **Bogdan Ștefan Vasile**, Dan Eduard Mihaiescu, Bogdan Purcarea, Marcela Popa, Carmen Mariana Chifiriuc, Multidisciplinary Digital Publishing Institute Proceedings, 2019, Volume 29, Issue 1, Pages 119.
3. **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.
4. **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;
5. **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;

6. *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.

**g) Conferences**

*Oral presentation:*

1. *Synthesis and characterization of mesoporous magnetic nanoparticles*, Denisa FICAI, Ecaterina ANDRONESCU, Anton FICAI, **Bogdan VASILE**, Cezar COMANESCU, Cornelia GURAN, 17th Romanian International Conference on Chemistry and Chemical Engineering September 7 – 10, 2011, Sinaia – Romania;
2. *Influence of obtaining conditions on nanometric characteristics of zirconia and alumina powders*, Stefania STOLERIU, Alexandra CARABAT, **Bogdan VASILE**, Ecaterina ANDRONESCU, 17th Romanian International Conference on Chemistry and Chemical Engineering September 7 – 10, 2011, Sinaia – Romania;
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;
4. *Noble metal nanoparticles with controlled morphology*, Daniela BERGER, Doru CONSTANTIN, **Bogdan Stefan VASILE**, Carmen Elena MIRON, Adrian Nicoara, Cristian Matei, 17th Romanian International Conference on Chemistry and Chemical Engineering September 7 – 10, 2011, Sinaia – Romania;
5. *A comparative study on nanostructured zirconia ceramics and nanocomposites sintered by different methods*, **B. S. Vasile**, E. Andronescu, C. Ghitulica, O. R. Vasile, L. Curechiu, R. Scurtu, 12th Conference of the European Ceramic Society, Stockholm, Sweden, June 19-23, 2011;
6. *Cubic Stabilized Zirconia Nanoparticles Obtained through the Pirosol Method*, **B.S. Vasile** (presenting author), C. Ghitulica, E. Andronescu, E. Dinu, O.R. Vasile –, ICC3 – 3<sup>rd</sup> International Congress on Ceramics, Nov. 14-18, 2010, Osaka, Japan;
7. *Structural Investigations on Yttria – Doped Zirconia Nanopowders Obtained by Different Methods*, Nicoletta Popescu-Pogrion, Ionel Mercioniu, **Bogdan Vasile**, Andrei Popescu, Cristina Ghitulica, Serban Constantinescu, Iancu Mihailescu, Ecaterina Andronescu, 18<sup>th</sup> National Electron Microscopy Congress, Eskisehir, Turkey, 26-29 August 2007.
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.

*Poster presentation*

9. *Microstructure characteristics of EB-PVD perovskite thermal barrier coatings*, Adrian SURDU, Bogdan VASILE, Alexandra BÎRCA, Otilia VASILE, Ecaterina ANDRONESCU, Roxana TRUȘCĂ, Radu PITICESCU, Arcadii SOBETKII, 7th International Congress on Ceramics June 17 - 21, 2018, Foz do Iguaçú, Brazil;
10. *TEM characterization of stabilised zirconia nanopowders*, Bogdan S. VASILE\*, Cristina GHITULICA\*, Ecaterina ANDRONESCU and Otilia R. VASILE, International ceramic, glass, porcelain enamel, glaze and pigment congress, 12-14 October 2009, Eskisehir, Turkey;

11. **Yttria totally stabilized zirconia nanoparticles obtained through the pyrosol method**, B.S. Vasile, Otilia-Ruxandra Vasile, Cristina Ghitulica, Ecaterina Andronescu, Raluca Dobranis, Elena Dinu, Roxana Trusca, *Trends in Nanotechnology*, 2009, Barcelona Spain;
12. **New nanostructured materials based electrochemical microsensors**, Otilia-Ruxandra Vasile, Raluca-Ioana van Staden, Jacobus Frederick van Staden, Simona-Cornelia Bălășoiu, Bogdan Ștefan Vasile, *Trends in Nanotechnology*, 2009, Barcelona Spain;
13. **Micro to nanosilver cytotoxicity: influence of grain size and synthesis route**, O. R. Vasile, E. Andronescu, B. S. Vasile, R. Trusca, E. Vasile, C. Bleotu, A. M. Holban, C. M. Chifiriuc, F. Iordache, *ECASIA European Association on Applications of Surface and Interface Analysis*, Montpellier, France, 2017

**h) National conferences:**

1. **Wound-Dressings with Antimicrobial Activity**, Ionela Andreea Neacsu, Alina Maria Holban, Bogdan-Stefan Vasile, Vladimir Lucian Ene, Coralia Bleotu, Madalina Georgiana Albu Kaya, Anton Ficai, Ecaterina Andronescu, A XIII-a Conferință de Știință și Ingineria Materialelor Oxidice – CONSILOX ALBA IULIA, ROMÂNIA 1-3 OCTOMBRIE 2021
2. **Terbium-Doped Hydroxyapatite**. Andrei Păduraru. Ovidiu Oprea. Adina Magdalena Mușuc. Bogdan Ștefan Vasile. Florin Iordache. Ecaterina Andronescu, *APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING*, 25 - 26 June 2021;
3. **Fly Ash Evaluation as Potential EOL Material Replacement in Cement Pastes**. Adrian-Ionuț Nicoara. Bogdan Ștefan Vasile. Vasile-Adrian Surdu. Vladimir Lucian Ene. Ionela Andreea Neacsu. Alexandra Elena Stoica. Ovidiu Oprea. Iulian Boierasu. Roxana Trusca. Mirijam Vrabc. Nastja Šmuc Rogan. Saso Sturm. Cleva Ow-Yang. Mehmet Ali Gulgun. Zeynep Basaran Bundur, *APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING*, 25 - 26 June 2021;
4. **In Situ Evaluation of Fly Ash as Potential EOL Material Replacement in Cement Pastes**. Bogdan Ștefan Vasile. Adrian-Ionuț Nicoara. Vasile-Adrian Surdu. Vladimir Lucian Ene. Ionela Andreea Neacsu. Alexandra Elena Stoica. Ovidiu Oprea. Iulian Boierasu. Roxana Trusca. Mirijam Vrabc. Nastja Šmuc Rogan. Saso Sturm. Cleva Ow-Yang. Mehmet Ali Gulgun. Zeynep Basaran Bundur, *APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING*, 25 - 26 June 2021;
5. **Influence of the Ti precursor on the self-assembly phenomena in hierarchical SrTiO<sub>3</sub> structures prepared by hydrothermal method**, Vishwanath Kalyani, Adelina-Carmen Ianculescu, Bogdan Vasile, Andrea Testino, Agnese Carino, Maria Teresa Buscaglia, Vincenzo Buscaglia, Paolo Nanni, 2<sup>nd</sup> “Conference of the Romanian Electron Microscopy Society - C.R.E.M.S.” 16<sup>th</sup> – 18<sup>th</sup> of may, 2017;
6. **Radiation Induced Effects in Nanocrystalline Thin Films**, B. S. Vasile, D. Craciun, O. Fufă, P. Ionescu, V. Craciun, 2<sup>nd</sup> “Conference of the Romanian Electron Microscopy Society - C.R.E.M.S.” 16<sup>th</sup> – 18<sup>th</sup> of may, 2017
7. **Doxorubicin- functionalized magnetite nanoparticles with anti-tumor applications: focus on electron microscopy investigations**, R.C. Popescu, R. Trușcă, B. Vasile, M. Straticiuc, A. Apostol, G. Voicu, E. Andronescu, D. Savu, A.M. Grumezescu, 2<sup>nd</sup> “Conference of the Romanian Electron Microscopy Society - C.R.E.M.S.” 16<sup>th</sup> – 18<sup>th</sup> of may, 2017;
8. **Nanostructured biomaterials for tissue engineering and reconstruction**, Alexandra Elena Oprea, Anton Ficai, Bogdan Ștefan Vasile, Alexandru Mihai Grumezescu, Ecaterina Andronescu, Bîrcă Alexandra Cătălina, Laurențiu Mogoanta, George Dan Mogosanu, 2<sup>nd</sup> “Conference of the Romanian Electron Microscopy Society - C.R.E.M.S.” 16<sup>th</sup> – 18<sup>th</sup> of may, 2017;
9. **HAp-Ag bionanostructured coatings for titanium implants**, O. Fufă, B.Ș. Vasile, R. Trușcă, M. Socol, L. Mogoantă, R.C. Popescu, G. Popescu-Pelin, G. Socol, A.M. Grumezescu, E. Andronescu, 2<sup>nd</sup> “Conference of the Romanian Electron Microscopy Society - C.R.E.M.S.” 16<sup>th</sup> – 18<sup>th</sup> of may, 2017;

10. **Electron microscopy investigations on ferroelectric domains in multiferroic  $(Pb1-3x/2Ndx)(Ti0.98-yFeyMn0.02)O3$  ceramics**, B.S. Vasile, M. Cernea, R. Trusca, 2 nd "Conference of the Romanian Electron Microscopy Society - C.R.E.M.S." 16th – 18th of may, 2017;
11. **Macroscopic 3D graphene Films. Wet acquisition and evaluation Surface Architecture**, Roxana Trusca, Bogdan Vasile, Vasile-Adrian Surdu, Cornel Fratila, Georgiana Moise, 2 nd "Conference of the Romanian Electron Microscopy Society - C.R.E.M.S." 16th – 18th of may, 2017;
12. **Morpho-structural effects induced by advanced cryogenic gradients, oxidation and thermal shock on EB-PVD thermal barrier coatings**, Ecaterina Andronescu, Vasile-Adrian Surdu, Roxana Trușcă, Alexandra Bîrcă, Arcadie Sobetkii, Bogdan Vasile, Mircea Corban, Mihail Boțan, Radu Piticescu, 3rd Conference of the Romanian Electron Microscopy Society, October 23-25, 2019
13. **Nanostructured coatings based on silver nanoparticles with applications in anti-infectious therapy**, A.C. Bîrcă, A.M. Grumezescu, F. Iordache, A.M. Holban, A.O. Stoica, I.A. Neacșu, B.S. Vasile, V.A. Surdu, R. Trușcă
14. **Composite hydrogels with application in wound healing**, A.C. Bîrcă, A.M. Grumezescu, F. Iordache, A.M. Holban, A.O. Stoica, I.A. Neacșu, B.S. Vasile, V.A. Surdu, R. Trușcă
15. **Microscopy studies on magnetron sputtered thin films with preferred orientation for positron moderation**, V.L. Ene, A.B. Șerban, V. Leca, B.S. Vasile, E. Andronescu
16. **Surface salinization of wood based materials for improved fire resistance**, Cristina Popescu, Ovidiu Oprea, Anton Ficai, Denisa Ficai, Bogdan Stefan Vasile, Roxana Doina Trusca, Ecaterina Andronescu
17. **MCM-41/Fe3O4 /paracetamol mesoporous materials as drug delivery system**, Simona Popescu, Denisa Ficai, Roxana Doina Trusca, Bogdan Stefan Vasile, Ovidiu Cristian Oprea, Anton Ficai, Ecaterina Andronescu
18. **Bioactive antimicrobial SiO2-Ag modified wound-dressings**, I.A. Neacsu, I. C. Croitorescu, V.L. Ene, R. Trusca, B.S. Vasile, A.M. Holban, A.C. Birca, E. Andronescu
19. **Influence of supplementary cementitious materials on hydration and microstructure development of concrete**, A.I. Nicoara, R. Trusca, O. Oprea, B.S. Vasile
20. **Bacterial cellulose- hydroxyapatite- silver based composites with applications in the field of hard tissue engineering**, A. Paduraru, D. Ene, A.I. Nicoara, B.S. Vasile, R. Trusca, A.M. Holban
21. **Fabrication of silica fibers by electrospinning technique and its application in bone tissue engineering**, Alexandra Elena Stoica, Alexandru Mihai Grumezescu, Anca Oana Hermenean, Bogdan Stefan Vasile, Roxana Trusca, Ovidiu Oprea, Ecaterina Andronescu
22. **AgNPs-PET nanofibers with antimicrobial properties**, A.E. Stoica, A.M. Grumezescu, C. Chircov, A.M. Holban, A. Ficai, B.S. Vasile, E. Andronescu
23. **Microscopic investigations of advanced coating architectures for aeronautics**, Anca Slobozeanu, Victor Manoliu, Mihai Botan, Bogdan Vasile, Mircea Corban, Radu R. Piticescu, Sorina Nicoleta Valsan
24. **Eu3 + doped hydroxyapatite as a fluorescent material for biomedical applications**, O.R. Vasile, E. Andronescu, D. Predoi, I.A. Neacsu, A.V. Paduraru, A.M. Musuc, R. Trusca, O. Oprea, E. Tanasa, A.I. Nicoara, A.V. Surdu, F. Iordache, A.C. Birca, B.S. Vasile
25. **Silver nanoparticles coated with EG/PEG for anti-infective therapy**, C. Chircov, A. Burdusel, A.E. Oprea, A.C. Birca, A.M. Grumezescu, O. Oprea, B.S. Vasile, L. Mogoanta

**i) Patents:**

1. **Ficai D, Andronescu E, Sonmez M, Ficai A, Oprea O, Vasile B.S.**, "Multifunction systems of the magnetite/thio acids/ag or au type, to be employed in cancer diagnosis and guided treatment". Univ Politehnica Din Bucuresti; RO129824-A2.
2. **Ianculescu A.C., Stanciu C.A., Vasile B.S., Trușcă R., Nicoară A.I., Eftimie A.M., Surdu V.A.**, "Preparation process by the negative template method combined with sol-gel chemistry of cerium doped BaTiO3 one-dimensional nanostructures with ferroelectric and piezoelectric characteristics", Derwent Primary Accession Number: 2020-01884J, Patent No RO133773-A0



**g) Certificates:**



# 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

[www.nanoconsulting.de](http://www.nanoconsulting.de)



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## Certificate

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

**"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 Wixix - 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

RONEXPRIM

**dr.eng. Rodica STOIAN**  
General Manager



FEI COMPANY  
NanoPort Europe

**dr. Maarten Wixix**  
Research Scientist TEM



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## Certificate

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

**"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

RONEXPRIM

**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 08 - 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

RONEXPRIM

dr.ing. **Rodrig STIGIAN**  
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 24<sup>th</sup> – 28<sup>th</sup> June 2013**

Held at UNIVERSITATEA POLITEHNICA DIN BUCURESTI



Signature of course tutor: Marco Sommariva

Date: 28<sup>th</sup> June 2013