

PERSONAL INFORMATION

Ioan Petean



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Sex M | Date of birth 21/02/1979 | Nationality Romanian

WORK EXPERIENCE

2010 - present

Scientific Research Assistant, Ph.D., Eng., - permanent position

Babeş Bolyai University, Faculty of Chemistry and Chemical Engineering

<http://www.chem.ubbcluj.ro/>

Department of Chemical Engineering

<http://www.chem.ubbcluj.ro/romana/ANEX/inginerie/index.php>

▪ Main activities and responsibilities

Activity sector: Laboratory Scientific Research

Atomic Force Microscopy (AFM) – images acquiring, processing

Surfaces and Physical Chemistry laboratory specific activities

Nanostructures and thin films investigation and characterization

2006 - 2010

Scientific Research Assistant, Eng., - temporary position

Babeş Bolyai University, Faculty of Chemistry and Chemical Engineering

<http://www.chem.ubbcluj.ro/>

Department of Chemical Engineering

<http://www.chem.ubbcluj.ro/romana/ANEX/inginerie/index.php>

▪ Main activities and responsibilities

Activity sector: Laboratory Scientific Research

Atomic Force Microscopy (AFM) – images acquiring, processing

Surfaces and Physical Chemistry laboratory specific activities

Nanostructures and thin films investigation and characterization

2002 - 2006

Ph.D. Student, position equivalent to Teaching Assistant

Technical University of Cluj Napoca, Romania

<https://www.utcluj.ro/>

Faculty of Materials Science and Engineering

<https://imm.utcluj.ro/acasa.html>

▪ Main activities and responsibilities

Activity sector: Laboratory Scientific Research and Didactic

2003 - 2006: Didactic laboratories: Crystallography, Materials Technology, Metals Study, Methods for materials structure investigation, Materials for electro-techniques, Materials Management,

2002 – 2006: Research Activities: mechanical alloying, material structure and properties investigation, XRD.

EDUCATION AND TRAINING

2002 - 2010 **Doctor, Ph.D. in Materials Science and Engineering**

Technical University of Cluj - Napoca, Romania, Faculty of Materials Science and Engineering

2010 – Doctor Diploma Awarded

- Principal subjects covered or skills acquired:
- Crystallography – Mineralogy;
- X ray Diffraction (XRD);
- Mechanical Alloying with nano-structural materials obtaining.
- Optical microscopy, SEM, TEM.

1997 - 2002 **Engineer Diploma, equivalent to M.Eng.,**

Engineering and Management of Materials Processing (5 years of study module)

Technical University of Cluj - Napoca, Romania, Faculty of Materials Science and Engineering

- Principal subjects covered or skills acquired:
- Metallic alloys elaboration and processing
- Elaboration and processing of non - metallic materials (polymers)
- Elaboration and processing of nano crystalline materials.

1997 - 2002 **Certificate of Didactic Personnel Training**

Technical University of Cluj - Napoca, Romania, Faculty of Materials Science and Engineering

- Principal subjects covered or skills acquired:
- Educational psychology
- Psycho-pedagogic module
- Teaching and Learning Methodic

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C1	C2
Franch	B1	B1	B1	A2	A2

Communication skills

- Communication skills formed during research and teaching activities:
- Oral presentations of research at National and International conferences;
- Communication skills developed during teaching at laboratory class:
- Atomic Force Microscopy (AFM) laboratory with students;
- Differential Scanning Calorimetry (DSC) laboratory with students.

Job-related skills	Expertise in different laboratory techniques in field of chemistry and materials science <ul style="list-style-type: none"> ▪ Atomic Force Microscopy (AFM); ▪ Optical microscopy , SEM, TEM; ▪ DSC analysis; ▪ XRD spectra interpretation; ▪ high level of skills for computer using for laboratory analysis
Computer skills	<ul style="list-style-type: none"> ▪ Windows 95, 98, 2000, XP, Windows 10 very advanced level; ▪ Microsoft Office (Word, Excel, PowerPoint) very advanced level; ▪ Images processing soft (Paint shop Pro, ACD Systems, Photoshop) very advanced level; ▪ Design soft (AutoCAD, Solid Works) average level; ▪ Charts processing soft (Microcal Origin) advanced level; ▪ Web design (Microsoft Front Page) average level.
Scientific Societies	<ul style="list-style-type: none"> ▪ Member in General Association of Engineers from Romania, since 2002. ▪ Member in Romanian Powder Metallurgy Society, since 2004.
Cultural Societies	<ul style="list-style-type: none"> ▪ Member of Romanian Philatelic Society, section Cluj – Napoca, since 1998; ▪ Correspondent member of Romanian Numismatic Society, since 2001;
Distinctions	<ul style="list-style-type: none"> ▪ 2009 – Merit Diploma – awarded by General Association of Engineers from Romania, Cluj Division. ▪ 2013 – Best Poster Prize - Alexandra Gertrud Caprar, Ioan Petean, George Arghir, Liviu Dorel Bobos, Ioan Iurcut, Maria Tomoaia Cotisel, Nano erosion of marble under acid rain. AFM investigation, The 11 th Conference on Colloid and Surface Chemistry, Iași, Romania May 9-11, 2013, Poster No. 15.
Scientific publications	<ul style="list-style-type: none"> ▪ ISI Articles = 44 from which: 8 first or corresponding author 6 co-author at Q1 papers 4 co-author at Q2 papers ▪ Articles in journals indexed in International Databases = 35 ▪ Presentations at National and International Conferences = 80 ▪ Team member in Scientific Research Grants = 6 ▪ Second Scientific Advisor for master dissertations = 2
ORCID	https://orcid.org/0000-0003-3274-8817
RESEARCH GATE	https://www.researchgate.net/profile/Petean-Ioan

ISI ARTICLES PUBLISHED IN 2018 - 2021

1. **I. Petean**, A. G. Paltinean, A. Mocanu, D. F. Muntean, L. Muresan, G. Arghir, M. Tomoaia-Cotisel, Micro and nano organization of atmospheric particulate matter in Grigorescu district of Cluj-Napoca., *Studia Univ. Babeş-Bolyai, Chem.*, 63(3), p. 49-57, (2018).
2. I.A. Cherecheş, **I. Petean**, A. G. Paltinean, A. Mocanu, L. Muresan, G. Arghir, M. Tomoaia-Cotisel, Airborne particles pollution in Dej City, *Studia Univ. Babeş-Bolyai, Chem.*, 63(4), p. 159-166, (2018).
3. I. Hodisan, C. Prejmorean, T. Buruiană, D. Prodan, L. Colceriu, **I. Petean**, G. Furtos, V. Prejmorean, M. Tomoaia Cotişel, Innovative Adhesive Systems for Dental Giomer Restorations, *Revista de Chimie*, 69(10), p. 2693 – 2702, (2018).
4. M. Gorea, M. A. Naghiu, A. Avram, **I Petean**, M. Tomoaia Cotisel, Sintering and characterization of new forsterite ceramics, *Studia Univ. Babeş-Bolyai, Chem.*, 64(2 II), p. 383-392, (2019).
5. T. Dippong, E. A. Levei, F. Goga, **I. Petean**, A. Avram, O. Cadar, The impact of polyol structure on the formation of $Zn_{0.6}Co_{0.4}Fe_2O_3$ spinel-based pigments, *Journal of Sol-Gel Science and Technology*, 92, p. 736-744, (2019).
6. A. Avram, M. Gorea, S. Rapuntean, A. Mocanu, G. A. Paltinean, C. Varhelyi, Jr., **I. Petean**, O. Horovitz, M. Tomoaia-Cotisel, In-vitro Antibacterial Activity of Novel Nanostructured Composites Based on Forsterite and Silver Nanoparticles, *Revista de Chimie*, 71, 1, p. 13 - 21, (2020).
7. I. Ciotlaus, A. Balea, M. Pojar-Fenesan, **I. Petean**, Chromatographic Profile of Volatiles of Multifloral and Unifloral Honey Collected by *Apis Mellifera* from Transilvania, Romania, *Revista de Chimie*, 71, 2, p. 91 - 99, (2020).

8. M. Gorea, M.A. Naghiu, A. Avram, **I. Petean**, A. Mocanu, M. Tomoaia Cotisel, Novel Porous Forsterite Ceramics Biocompatibility and Bioactivity Evaluation, *Revista de Chimie*, 71, 2, p. 343 - 351, (2020).
9. T. Dippong, I.G. Deac, O. Cadar, E. A. Levei, **I. Petean**, Impact of Cu^{2+} substitution by Co^{2+} on the structural and magnetic properties of CuFe_2O_4 synthesized by sol-gel route, *Materials Characterization*, 163, No. 110248, p. 1 – 11, (2020).
10. C. Voina, A. Delean, A. Muresan, M. Valeanu, A. Mazilu Moldovan, V. Popescu, **I. Petean**, R. Ene, M. Moldovan, S. Pandrea, Antimicrobial Activity and the Effect of Green Tea Experimental Gels on Teeth Surfaces, *Coatings*, 10, 2020, 537, p. 1 – 18.
11. C. Voina, A. Muresan, A. Delean, A. I. Moldovan, V. Popescu, D. Prodan, **I. Petean**, A. Voina-Tonea, M. Valeanu, The Effects of an Experimental Green Tea Extract Gel on the Surface Roughness of Bleached Teeth with Carbamide Peroxide Gels, *Revista de Chimie*, 71, 6, p. 312 - 320, (2020). **Autor de corespondenta.**
12. A. Craciun, D. Prodan, M. Constantiniuc, A. Ispas, M. Filip, M. Moldovan, M. Badea, **I. Petean**, M. Crisan, Stability of Dental Composites in Water and Artificial Saliva, *Materiale Plactice*, 57, 2, p. 57 - 66, (2020).
13. A. Craciun, I. Baldea, A. Ispas, M. Badea, **I. Petean**, C. Sarosi, M. Moldovan, S. Cuc, R. Ene, M. Crisan, Evaluation of Surface Characteristics and Cytotoxicity of Dental Composites, *Coatings*, 10, 2020, 749, p. 1 – 18.
14. T. Dippong, O. Cadar, E. A. Levei, I.G. Deac, M. Lazar, Gh. Borodi, **I. Petean**, Effect of amorphous SiO_2 matrix on structural and magnetic properties of $\text{Cu}_0.6\text{Co}_0.4\text{Fe}_2\text{O}_4/\text{SiO}_2$ nanocomposites, *Journal of Alloys and Compounds*, 849, 2020, 156695, p. 1 – 10.
15. A. Mester, A. Piciu, D. Piciu, **I. Petean**, P.O. Lucaciu, D. Apostu, C. Moiescu-Goia, A. Voina-Tonea, M. Moldovan, Disorders of Dental Hard Tissues Induced by Radioiodine-131 (^{131}I) Therapy Used in Differentiated Thyroid Cancer: An In Vitro Study, *Biomedicines*, 8, 2020, 475, p. 1 – 10.
16. E. Sabau, P. Bere, M. Moldovan, **I. Petean**, C. Miron - Borzan, Evaluation of Novel Ornamental Cladding Resistance, Comprised of GFRP Waste and Polyester Binder, within an Acid Environment, *Polymers*, 13, 2021, 448, p. 1 – 17.
17. A. Mester, M. Moldovan, M. Taulescu, C. Sarosi, **I. Petean**, A. Vulpoi, A. Piciu, A. Voina-Tonea, C. Moiescu-Goia, E. Barbus, D. Piciu, The Side Effects of Therapeutic Radioiodine-131 on the Structure of Enamel and Dentin in Permanent Human Teeth, *Biology*, 10, 2021, 284, 1–10.
18. A. Mocanu, O. Cadar, P.T. Frangopol, **I. Petean**, Gh. Tomoaia, G.A. Paltinean, C.P. Racz, O. Horovitz, M. Tomoaia-Cotisel, Ion release from hydroxyapatite and substituted hydroxyapatites in different immersion liquids: in vitro experiments and theoretical modelling study, *Royal Society Open Science* 8, 2021, 201785, p. 1-25.
19. A.M. Picos, **I. Petean**, A. Picos, A. Dadarlat-Pop, A.L. Rachisan, A. M. Tomsa, N.M. Petrachescu, C. Petri, M.E. Badea, I.D. Magurean, Antimicrobial Atomic force microscopy analysis of the surface alterations of enamel, dentin, composite and ceramic materials exposed to low oral pH in GERD, *Experimental and Therapeutic Medicine*, 22, 2021, 673, p. 1 – 8. **Autor de corespondenta.**
20. M.E. Rusnac, D. Prodan, S. Cuc, **I. Petean**, C. Prejmorean, C. Gasparik, D. Ducea, M. Moldovan, Water Sorption and Solubility of Flowable Gomers, *Materials*, 14, 2021, 2399, p. 1 – 13.

Cluj – Napoca, 15 12 2021

A.C. Dr. Eng. Ioan Petean