

## Europass Curriculum Vitae

### Personal information

First name(s) / Surname(s) **Victor FRUTH-OPRISAN**  
Address 14, Str. Plantelor, S2, Bucharest  
Mobile 40720959569  
E-mail(s) vfruth@icf.ro  
Nationality Romanian  
Date of birth 27/02/1954  
Gender Male

Desired employment /  
Occupational field **Senior Scientific Researcher  
CP1**

### Work experience

Dates 1987 →  
Occupation or position held Senior Scientific Researcher / Department 7 (Oxide compounds and material science) – deputy of the department  
Main activities and responsibilities Research in the field of physical chemistry of the oxide materials (single and poly-component), particularly concerning the phase equilibrium, reaction mechanisms and correlations structure-properties in oxides (crystalline and glassy)  
Advanced ceramic materials with special properties (magnetic, electric, optic, mechanic, ex. superconductors, ionic conductors);  
Non conventional route of preparation. Nanopowders, bulk, thin and thick films, 1D nanostructures.

Name and address of employer Institute of Physical Chemistry "Ilie Murgulescu"  
202, Splaiul Independentei, 060021 Bucharest (Romania)  
Type of business or sector Academic  
Dates 1979 - 1987  
Occupation or position held researcher  
Main activities and responsibilities Technological Research in Portland Cement Industry  
Name and address of employer PROCEMA  
6, Bulevardul Preciziei , Bucharest (Romania)  
Type of business or sector Research

### Education and training

Dates 1974 - 1979  
Title of qualification awarded "Politechnica" University of Bucharest, BSc graduation Diploma Chemical Engineering in 1979  
Principal subjects / occupational skills covered Physical chemistry of the oxide materials  
Name and type of organisation providing education and training University of Bucharest, Bucharest, Romania

31.01.2018  


Level in national or international classification

ISCED 5

Dates

1998

Title of qualification awarded

PhD in Material Science "Politehnica" University of Bucharest,

Principal subjects / occupational skills covered

Phase *Equilibria and properties in superconductor oxides from the system  $M^{II} - M^{III} - Cu - O$*  - coordination: Prof. Dr. Doc. I. Teoreanu.

Name and type of organisation providing education and training

"Politehnica" University of Bucharest, Chemical Engineering Faculty

Level in national or international classification

ISCED 5

**Personal skills and competences**

Mother tongue(s)

Romanian

Other language(s)

Self-assessment

European level (\*)

French

English

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B1	Independent user	B1	Independent user	B2	Independent user	B2	Independent user	B2	Independent user
C1	Proficient user	C1	Proficient user	B1	Independent user	B1	Independent user	B1	Independent user

(\*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences

Team work: I have worked in various types of team projects

Organisational skills and competences

Good experience in project or team management

Computer skills and competences

Good command of Microsoft Office tools.  
Experience with Origin 7.0

Other skills and competences

Sports

Driving licence(s)

B

Member of professional associations

Romanian Ceramic Society (CEROM), European Ceramics Society (ECERS)

Other competences

Member in the board committee of ISRN Ceramics (<http://www.isrn.com/journals/ceramics/editors/>)  
Member in the board committee of Romanian Journal of Materials (<http://solacolu.chim.upb.ro/ColegiuEditorialeng.htm>)  
Reviewer at: J. Eur. Ceram. Soc., J. Amer. Ceram. Soc., J.Mater. Sci., J.Non-Crystall. Solids, Matter.Letter., etc  
Doctoral courses; Tutorials activities for students and masters; Conferences, workshops and summer school organiser.

Awards

Romanian Academy Award "Gh. Spacu" -2006 for the group of papers "Bismuth based advanced ceramics"

**Additional information**

Experience in other national/international programs

• European Regional Development Fund – ERDF, Intervention Domain: 2.2. Research and Development Infrastructure Investments and Administrative Capabilities Development, 2<sup>nd</sup> priority axis: Research, technological development and innovation for competitiveness, Project: INFRANANOCHEM "Modernizing the research and development infrastructure within the „Ilie Murgulescu" Institute of Physical Chemistry of the Romanian Academy, with extension of the interdisciplinary research in the field of nanomaterials and nanotechnologies", (2008-2011), Project Manager

- COST MP0902 Composites of Inorganic Nanotubes and Polymers (COINAPO) (2010-2013) – MC for Romania
- PNII (national complex project), *Ceramic materials, component of SOFC for IT (intermediate temperature)* (2007-2010), Director of the project
- PNII (national complex project), *Superior composite armor plates for protection against multiple threatening* (2008-2011), Responsible of the project
- PNII (national complex project), *Polymer-ceramic nanocomposites foams, for de-pollution of gas flow from thermal power plant* (2008-2011), Responsible of the project
- CEEEX (center of excellence) project: *Optical and electrical processes in hybrid nanostructured materials obtained by intercalation of bi-dimensional crystalline structures* (2006-2008), Responsible of the project.
- CEEEX (centre of excellence) project *“Serpentine and vinyl polymers based inorganic-organic hydride nanostructures for advanced composites”* (NAHANOSCA)-(2005-2008), Responsible of the project.
- CEEEX (centre of excellence) project *“Analysis of the cement structures obtained with alternative combustible”* (IARIS) (2005-2008), Responsible of the project
- CEEEX (centre of excellence) project *“Photoconduction and Photoluminescence processes in para-phenilen vinylen/carbon nanotubs and poly- Para phenilen vinylen/ oxide nanoparticles (COMPPPVNTCNPO)”* (2005-2008), Responsible of the project
- Grant AR *Ceramic films and nanopowder oxides with ionic conduction properties* (2005-2006), Director of the project
- Scientific Cooperation *Modifications determined by twin-ions in zirconia composites* with Institute of Nuclear Science Vinca Belgrad (2005-2007), Coordinator of the Romanian group
- *Polar Electroceramics* POLECER, thematic network in the frame of *Competitive and Sustainable Growth*, contract No G5RT-CT-2001-2005-05024 on 14/03/01 (2002-2006), Participant
- Project COST 539, *Electroceramics from Nanopowders Produced by Innovative Methods* - ELENA (2005-2008), National responsible
- Project COST 525 *Grain Boundary Engineering* (2003-2005), Participant
- Interdisciplinary program for the prevention of high-risk phenomena at national scale, *Academica XIII (155) 62 (2003): Oxide films with mixed conduction as sensors in environment monitoring* (2003-2005), Responsible of the sub-project
- Project MATNANTECH, *Research Centre in Nanotechnology for new Materials and Processing (NANOMATFAB)*, Sub-program S10, Nr. Project 3100258, Contract 152 (310), 2003-2005, Participant
- *Oxide materials with special electrical and magnetic properties* - Grant ANSTI/MEC 5206/1999 and 6029GR/2000 (1999-2001), Director of the project

List of relevant publications between 2004-2016

- F.Craciun, M.Cerneea, V.Fruth, M.Zaharescu, I.Atkinson, N.Stanica, L.C.Tanase, L.Diamandescu, A.Iuga, C.Galassi, Novel multiferroic (PbNd)(TiFeMn)O<sub>3</sub> ceramics with coexisting ferroelectricity and ferromagnetism at ambient temperature, *Materials and Design*, 110(2016) 693-704
- A. Zaharia, A. Sarbu, A.L. Radu, K. Jankova, A. Daugaard, S. Hvilsted, F.X. Perrin, M. Teodorescu, C. Munteanu and V. Fruth, Preparation and characterization of polyacrylamide-modified kaolinite containing poly [acrylic acid-co-methylene bisacrylamide] nanocomposite hydrogels, *Applied Clay Science*, Volume 103, January 2015, Pages 46–54
- C. Andronescu, V. Fruth, E. Volceanov, R. Scurtu, C. Munteanu, M. Zaharescu, MICROWAVE SINTERING OF Sr AND Mg-DOPED LANTHANUM GALLATE (LSGM) SOLID ELECTROLYTES, *ROMANIAN JOURNAL OF MATERIALS*, Volume 44, Issue 1 (2014) 79-87
- Radu, A.-L., Damian, C., Fruth, V., Iordache, T.-V., Zaharia, A., Iovu, H., Sarbu, A. Unique polyvinyl acetate-mesoporous synthetic zeolite composites prepared in ultrasonic field, *Microporous and Mesoporous Materials*, Volume 198, 1 November 2014, Pages 281-290
- Velciu, G., Melinescu, A., Marinescu, V., Fruth, V., Scurtu, R., Preda, M., Synthesis and characterization of solid electrolytes based on CeO<sub>2</sub> for intermediate temperature fuel cells, *Romanian Journal of Materials*, Volume 44, Issue 2, 2014, Pages 131-140
- Nicolescu, T.V., Meouche, W., Branger, C., Margailan, A., Sarbu, A., Fruth, V., Donescu, D. A new microemulsion approach for producing molecularly imprinted polymers with selective recognition cavities for gallic acid (*Polymer International*) in press 2013
- M. Radovic, Z. Dohc'evic'-Mitrovic, A. Golubovic, V. Fruth, S. Preda, M. Sc'epanovic'



- and Z.V. Popovic', Influence of Fe<sup>3+</sup> doping on optical properties of CeO<sub>2-y</sub> nanopowders, *Ceramics International*, <http://dx.doi.org/10.1016/j.ceramint.2012.11.087>,
- Z. Dohcevic-Mitrovic, A. Golubovic, M. Radovic, **V. Fruth**, A. Kremenovic, A. Meden, B. Babic, M. Scepanovic, and Z. V. Popovic, Mesoporous CeO<sub>2</sub> nanopowders with different particle sizes, *Phys. Status Solidi A* 208, No. 6, 1399–1402 (2011) / DOI 10.1002/pssa.201000355
  - N. Preda, L. Mihut, M. Baibarac, I. Baltog, J. Pandele, C. Andronescu, **V. Fruth**, *Films and crystalline powder of BiI<sub>3</sub> intercalated with ammonia*, *Journal of the European Ceramic Society* 30, (2010) 475–479.
  - Stoica-Guzun, L. Jecu, A. Gheorghe, I. Raut, M. Stroescu, M. Ghiurea, M. Danila, I. Jipa, **V. Fruth**, *Biodegradation of Poly(vinyl alcohol) and Bacterial Cellulose Composites by Aspergillus niger*, *J Polym Environ* DOI 10.1007/s10924-010-0257-1
  - **V. Fruth**, M. Popa, J. Calderon-Moreno, E. Tenea, M. Anastasescu, P. Osiceanu, L. Predoana, B. Malic, M. Zaharescu, *Perovskite type nanopowders and thin films obtained by chemical methods*, *Processing and Application of Ceramics* 4[3](2010)
  - **V. Fruth**, C. Andronescu, C. Homoiu, C. Tenea, A. Rusu, R. Scurtu, *Processing of (La,Sr)(Ga,Mg)O<sub>3</sub> solid electrolyte using an enhanced solid state technique*, *Roumanian Journal of Materials*, 41 1 (2011) 299-305
  - N. Preda, E. Rusen, A. Musuc, M. Enculescu, E. Matei, B. Marculescu, **V. Fruth**, I. Enculescu, *The influence of chemical composition on initial permeability frequency spectra of cobalt ferrites*  
OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, 4(6) 808-811, JUN 2010
  - M. Popa, S. Preda, **V. Fruth**, K. Sedláčková, C. Balázsi, D. Crespo, J.M. Calderón-Moreno. 2009. *BiFeO<sub>3</sub> films on steel substrate by the citrate method*, *Thin Solid Films* 517 (8): 2581-2585
  - N. Preda, L. Mihut, M. Baibarac, I. Baltog, R. Ramer, J. Pandele, C. Andronescu, **V. Fruth**. 2009. *Films and crystalline powder of PbI<sub>2</sub> intercalated with ammonia and pyridine*. *J. Mater. Sci.: Mater. Electron.* 20 (1): S465–S470
  - **V. Fruth**, E.M. Anghel, E. Tenea, C. Andronescu, I. Atkinson, M. Popa. 2008. *BiFeO<sub>3</sub> thin films deposited on different substrates*, *Romanian Journal of Materials* 38 (1) 2008
  - M. Popa, D. Crespo, J.M. Calderon-Moreno, S. Preda, **V. Fruth**. 2007. *Synthesis and Structural Characterization of Single-Phase BiFeO<sub>3</sub> Powders from a Polymeric Precursor*. *J. Am. Ceram. Soc.* 90 (9):2723-2727
  - D. Nastac, **V. Fruth**, M. Muntean. 2008. *Structural parameter changes in phosphorous doped alit solid solutions*. *Romanian Journal of Materials* 38 (3): 193-203
  - S. Motoc, A. Abagiu, E. Volceanov, R. Neagu, P. Balog, A. Sârbu, L. Mara, **V. Fruth**, *Silicon nitride (Si<sub>3</sub>N<sub>4</sub>) synthesis from anorganic-organic nanocomposites*, *Metalurgy and New Materials Researches*, vol. XVI, nr.1, 2008, p 39-45
  - Sârbu, A. L. Radu, L. Mara, **V. Fruth**, G. Nechifor, S. Motoc, S. O. Dima, M. Beda, *Inorganic-organic hybrids for advanced composites obtaining*, *SCIENTIFIC STUDY & RESEARCH Chemistry & Chemical Engineering, Biotechnology, Food Industry*, Vol. IX, no. 2, 2008, p. 213 – 220
  - **V. Fruth**, L. Mitoseriu, D. Berger, A. Ianculescu, C. Matei, S. Preda, M. Zaharescu. 2007. *Preparation and characterization of BiFeO<sub>3</sub> ceramic*, *Progress in Solid State Chemistry* 35 (2-4): 193-202
  - **V. Fruth**, E. Tenea, M. Gartner, M. Anastasescu, M. Zaharescu. 2007. *Preparation of BiFeO<sub>3</sub> films by wet chemical method and their characterisation*. *J. Eur. Ceram. Soc.* 27 (2-3): 937-940
  - D. Berger, C. Matei, F. Papa, D. Macovei, **V. Fruth**, J.P. Deloume. 2007. *Pure and doped lanthanum manganites obtained by combustion method*. *J. Eur. Ceram. Soc.* 27 (13-15): 4395-4398
  - D. Berger, C. Matei, F. Papa, G. Voicu, **V. Fruth**. 2007. *Pure and doped lanthanum cobaltites obtained by combustion method*. *Progress in Solid State Chemistry* 35 (2-4): 183-191
  - **V. Fruth**, A. Ianculescu, D. Berger, G. Voicu, E. Tenea, M. Popa, R. Ramer. 2006. *Synthesis, structure and properties of doped Bi<sub>2</sub>O<sub>3</sub>*. *J. Eur. Ceram. Soc.* 26 (14): 3011-3016
  - **V. Fruth**, D. Berger, A. Ianculescu, E. Tenea, J. R. Groza, M. Zaharescu, *Preparation and characterization of BiFeO<sub>3</sub> nanopowders*, *Proceedings of the 4th International Conference on Science, Technology and Applications of Sintering*, August 29 – September 1, 2005, Grenoble, France
  - **V. Fruth**, D. Berger, C. Matei, A. Ianculescu, M. Popa, E. Tenea, M. Zaharescu. 2005. *Preparation and Characterization of BiFeO<sub>3</sub> nanopowders*. *J. Phys. IV France* 128 (1): 7-11



- **V. Fruth**, M. Popa, D. Berger, R. Ramer, M. Gartner, A. Ciulei, M. Zaharescu. 2005. *Deposition and Characterization of Bismuth Oxide Thin Films*. J. Eur. Ceram. Soc. 25 (12): 2171-2174
- **V. Fruth**, M. Gartner, M. Anastasescu, D. Berger, M. Zaharescu, *Bismuth Oxide Thin Films: Optical Characterisation*, International Conference on Materials Science and Engineering, Brasov, 24-26 februarie 2005 (CD- proceeding)
- **V. Fruth**, M. Popa, A. Ianculescu, M. Stir, S. Preda, Gh. Aldica. 2004. *High-T<sub>c</sub> Phase Obtained in the Pb/Sb doped Bi-Sr-Ca-Cu-O System*. J. Eur. Ceram. Soc. 24 (6): 1827-1830
- **V. Fruth**, M. Popa, D. Berger, C.M. Ionica, M. Jitianu. 2004. *Phases Investigation in the Antimony Doped Bi<sub>2</sub>O<sub>3</sub> System*. J. Eur. Ceram. Soc. 24 (6): 1295-1299
- M. Zaharescu, M. Preda, M. Crisan, **V. Fruth**, S. Preda. 2004. *Influence of Hydrothermal Method on the Aluminum Titanate Synthesis*. Key Engineering Materials 143-146: 264-268
- **V. Fruth**, M. Popa, D. Berger, L. Predoana, M. Gartner, M. Zaharescu. 2004. *Antimony Doped Bi<sub>2</sub>O<sub>3</sub> Thin Films*. Key Engineering Materials 264-268: 1245-1248
- D. Berger, **V. Fruth**, I. Jitaru, J. Schoonman. 2004. *Synthesis and Characterisation of La<sub>1-x</sub>Sr<sub>x</sub>CoO<sub>3</sub> with Large Surface Area*. Materials Letters 58 (19): 2418-2422
- D. Berger, **V. Fruth**, I. Jitaru. 2004. *Pure and Doped Lanthanum Cobaltites Obtained From Maleate-Based Precursors*. Rev. Roum. Chim. 49 (3-4): 293-299

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