

Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Ossi / Horovitz**

Address(es)

Telephone(s)

Fax(es)

E-mail

Nationality

Date of birth

Gender

Occupational field

University Professor, Member of Physical Chemistry Center of Excellency Teaching, Education, Research, Development and Innovation

Work experience

Dates 1997 - 2010

Occupation or position held University Professor

Main activities and responsibilities Teaching in physical chemistry, chemical structure, thermodynamics, macromolecules, material science and technology;

Research, development and innovation of nanostructured systems of nano gold and nano silver obtained by innovative methods of green chemistry; molecular recognition of nano gold and proteins and amino acids.

Name and address of employer Babes-Bolyai University of Cluj-Napoca, Faculty of Chemistry and Chemical Engineering

Type of business or sector Teaching and education
Public education / government sector

Dates 1990-1997

Occupation or position held Reader

Main activities and responsibilities Teaching, research, head of department

Name and address of employer Technical University of Cluj-Napoca

Type of business or sector Teaching and education in physical chemistry, macromolecules and composites

Research, development and innovation in material science; composites; coal chemistry, quantum chemistry

Dates 1984 - 1990

Occupation or position held Lecturer

Main activities and responsibilities Teaching and education in physical chemistry, general chemistry, macromolecules

Research, development and innovation in quantum chemistry, coal chemistry

Name and address of employer Technical University of Cluj-Napoca

Type of business or sector Teaching and education
Research, development coal chemistry, quantum chemistry

Dates 1978-1984

Occupation or position held **Assistant**
 Main activities and responsibilities Teaching, research
 Name and address of employer Polytechnical Institute of Cluj-Napoca
 Type of business or sector Teaching and education

Dates **1968-1978**
 Occupation or position held **Teacher**
 Main activities and responsibilities Teaching chemistry
 Name and address of employer Avram Iancu Highschool, Aiud
 Type of business or sector Teaching and education

Education and training

Dates **1969 – 1978**

Title of qualification awarded **PhD**
 Principal subjects/occupational skills covered Physical chemistry
 Name and type of organisation providing education and training Babes-Bolyai University of Cluj-Napoca, Faculty of Chemistry and Chemical Engineering

Level in national or international classification **ISCED 6**

Dates **1963-1968**
 Title of qualification awarded Graduation in chemistry, specialty physical chemistry
 Name and type of organisation providing education and training Babes-Bolyai University of Cluj-Napoca, Faculty of Chemistry

Level in national or international classification **ISCED 6**

Dates **1959-1963**
 Title of qualification awarded High-school graduation
 Name and type of organisation providing education and training High school of Ocna-Mures, Alba county, Romania

Personal skills and competences

Mother tongue(s) Romanian, German

Other language(s)

Self-assessment
 European level (*)

	Understanding				Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production			
French	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
English	C1	Proficient user	C1	Proficient user	B2	Independent user	B2	Independent user	C2	Proficient user
Russian	B1	Independent user	B2	Independent user	A2	Basic user	A2	Basic user	B1	Independent user

(*) Common European Framework of Reference for Languages

Social skills and competences Good relations with colleagues and students. Team spirit

Organisational skills and competences	I led students in graduation and dissertation work, I was tutor for students in the German department; I was the head of chemistry department at the Technical University of Cluj-Napoca
Technical skills and competences	Solid knowledge in chemistry, physics and mathematics. Internships at the Universities of Nottingham (UK, 1992), Würzburg (Germany, 1998), Technical University of Merseburg (Germany, 1999, 2002, 2005), Görlitz (Germany, 2004) Thessaloniki (Greece, 2006) <ul style="list-style-type: none"> • 11 books published recognized publishing houses • 10 books published within the University, among them 3 textbooks in German • 130 papers in scientific journals • Over 50 research grants (as member of the research team) • Areas of scientific interest: quantum and computational chemistry, nanostructures, macromolecules, colloidal chemistry, kinetics, thermodynamics. • Memberships in: <i>Romanian Chemical Society</i> <i>Romanian Society of Biomaterials</i> <i>American Nano Society</i>
Computer skills and competences	good command of Microsoft Office™ tools (Word™, Excel™ and PowerPoint™); programming in QBASIC, specific computational programs
Artistic skills and competences	Music (violin)
Other skills and competences	History of science; member in CRIFTS (Romanian Committee for History and Philosophy of Science and Technique)
Driving licence	Category B

Additional Information

Selected Published Papers ISI:

- 1) Gh. Tomoaia, P. T. Frangopol, O. Horovitz, L.-D. Bobos, A. Mocanu and M. Tomoaia-Cotisel, "The effect of arginine on gold nanoparticles in colloidal solutions and in thin films", *Journal of Nanoscience and Nanotechnology*, **11**, 7762-7770 (2011).
- 2) U. V. Zdrengea, Gh. Tomoaia, D.-V. Pop-Toader, A. Mocanu, O. Horovitz and M. Tomoaia-Cotisel, "Procaine effect on human erythrocyte membrane explored by atomic force microscopy", *Combinatorial Chemistry & High Throughput Screening*, **14** (4), 237-247 (2011).
- 3) A. Mocanu, I. Cernica, Gh. Tomoaia, L.-D. Bobos, O. Horovitz and M. Tomoaia-Cotisel, "Self-assembly characteristics of gold nanoparticles in the presence of cysteine", *Colloids and Surfaces A: Physicochem. Eng. Aspects*, **338**, 93-101 (2009).
- 4) O. Horovitz, Gh. Tomoaia, Cs. Racz, A. Mocanu, L. Bobos and M. Tomoaia-Cotisel, "Surface properties of some carotenoids spread in monolayers at the air/water interface. Experimental and computational approach", *Centr. Eur. J. Chem.*, **4**(3), 489-501 (2006).
- 5) O. Horovitz, Gh. Tomoaia, A. Mocanu, T. Yupsanis and M. Tomoaia-Cotisel, "Protein binding to gold colloids", *Gold Bulletin*, **40** (3), 213-218 (2007).
- 6) O. Horovitz, Gh. Tomoaia, A. Mocanu, T. Yupsanis and M. Tomoaia-Cotisel, "Protein binding to gold auto-assembled films", *Gold Bulletin*, **40** (4), 295-304 (2007).

Books and contributions to books

M. Tomoaia-Cotisel, O. Horovitz and A. Mocanu, "Applied Chemical Thermodynamics in Engineering and Material Science" (Rom.), University Press, Cluj-Napoca, 2009, ISBN: 978-973-610-942-3.

M. Tomoaia-Cotisel, O. Horovitz, A. Mocanu, I. Albu and Cs. Racz, "Chemical Thermodynamics in Numerical Applications, Diagrams and Tests", (Rom.) 2nd Edition, University Press, Cluj-Napoca, 2008; ISBN: 978-973-610-691-0.

C. Mureşanu, O. Horovitz, "Makromolekulare und kolloidale Chemie", (Germ.), Ed. Todesco, Cluj-Napoca, 2004, ISBN 973-8198-85-2

V. Popescu, O. Horovitz, L. Damian, "Composites with organic matrix" (Rom.), UTPress, Cluj-Napoca, 2001: ISBN 973-9471-97-8.

- Relevant projects

5 (CEEX) /2005 - Strategies of interfacial nanofabrication in research and development of some novel functional nanomaterials and plan supramolecular structures for nanotechnology and nanodevices

1312 (CNCSIS) /2006 - Research and development of some nanostructures of biological interest. Organization of nanoparticles in complex superstructures with applications in nanosciences.

591 (CEEX) / 2006 - New ionomer biocomposites based on modified polialchenoic acids with resins and surface active glasses with multiple applications in medicine

41-050 / 2007 - Methods and technologies based on molecular and cellular medicine with applications in surgery and treatment of bone cancer, bone metastases and osteo-articular lesions.

31- 039 / 2007 - The development of ecological products from biodegradable materials, designated for realization of packages and protection elements.

994 / 2007 - Impact program - ANCS – European structural funds – Research, development and innovation for nanobiostructures and multifunctional supramolecular systems

Here, I certify that the above statement is true.

Date: October 30, 2011

Univ. Prof. Dr. Ossi Horovitz