

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **Cristian Sorin SILVESTRU**
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Nationality Romanian
Date of birth 08.12.1955
Gender M

Desired employment / Occupational field

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Work experience

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|--------------------------------------|--|
| Dates | 1995-present |
| Occupation or position held | Professor |
| Main activities and responsibilities | Lectures, seminars, research in inorganic and organometallic chemistry |
| Name and address of employer | Babeş-Bolyai University, M. Kogălniceanu no. 1, Cluj-Napoca, RO-400028 |
| Type of business or sector | Teaching and research |
| Dates | 1993-1995 |
| Occupation or position held | Associate Professor (reader) |
| Main activities and responsibilities | Lectures, seminars and practical works, research in inorganic and organometallic chemistry |
| Name and address of employer | Babeş-Bolyai University, M. Kogălniceanu no. 1, Cluj-Napoca, RO-400028 |
| Type of business or sector | Teaching and research |
| Dates | 1990-1993 |
| Occupation or position held | Lecturer |
| Main activities and responsibilities | Lectures, seminars and practical works, research in inorganic and organometallic chemistry |
| Name and address of employer | Babeş-Bolyai University, M. Kogălniceanu no. 1, Cluj-Napoca, RO-400028 |
| Type of business or sector | Teaching and research |
| Dates | 1989-1990 |
| Occupation or position held | Scientific researcher in chemistry |
| Main activities and responsibilities | Research in inorganic and organometallic chemistry |
| Name and address of employer | Babeş-Bolyai University, M. Kogălniceanu no. 1, Cluj-Napoca, RO-400028 |
| Type of business or sector | Research |

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|--------------------------------------|--|
| Dates | 1982-1989 |
| Occupation or position held | Scientific researcher in chemistry |
| Main activities and responsibilities | Research on basis of contracts with industrial companies |
| Name and address of employer | Institute for Chemical and Biochemical Chemistry, Cluj-Napoca Branch, Babeş-Bolyai University, M. Kogălniceanu no. 1, Cluj-Napoca, RO-400028 |
| Type of business or sector | Research |
| Dates | 1980-1982 |
| Occupation or position held | Chemist |
| Main activities and responsibilities | Laboratory analyses |
| Name and address of employer | "Aghireş" Mining company, Aghireş, Cluj county |
| Type of business or sector | Refractory sand and kaolin production, laboratory analyses |

Education and training

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| Dates | Oct. 1985 – Apr. 1990 |
| Title of qualification awarded | PhD in chemistry |
| Principal subjects/occupational skills covered | Inorganic and organometallic chemistry |
| Name and type of organization providing education and training | Babeş–Bolyai University, Faculty of Chemistry and Chemical Engineering, Inorganic Chemistry Department, Cluj-Napoca, Romania |
| Level in national or international classification | 6 |
| Dates | Sept. 1979 – July 1980 |
| Title of qualification awarded | MSc in Inorganic Chemistry |
| Principal subjects/occupational skills covered | Inorganic and organometallic chemistry |
| Name and type of organization providing education and training | Babeş–Bolyai University, Faculty of Chemistry and Chemical Engineering, Inorganic Chemistry Department, Cluj-Napoca, Romania |
| Level in national or international classification | 6 |
| Dates | Sept. 1975 – July 1979 |
| Title of qualification awarded | BSc in chemistry |
| Principal subjects/occupational skills covered | Chemistry |
| Name and type of organization providing education and training | Babeş–Bolyai University, Faculty of Chemistry and Chemical Engineering, Inorganic Chemistry Department, Cluj-Napoca, Romania |
| Level in national or international classification | 5 |

Personal skills and competences

- Research stays at:
- Bremen Universität (Germany) (visiting professor – 1993, 3 months)
 - Vrije Universiteit Brussel (Belgium) (EC COST grant – 1993, 2 months)
 - Instituto de Quimica, Universidad Nacional Autonoma de Mexico (Mexico) (visiting professor – 1993-1995, 2 years)
 - Oxford University (UK) (grant for International Journal Authors, Royal Society of Chemistry – 1999, 2 months)
 - Michigan State University (USA) (visiting research associate – 2000, 5 months)
 - Universidad de Zaragoza (Spain) (NATO fellowship – 2004, 9 months)

Invited conferences at other Universities: Universidad Automoma de Puebla, Mexico (1994), Universidad Autonoma Metropolitana, Mexico, D.F. (1994), Centro de Investigacion y de Estudios Avansados, Instituto Politecnico Nacional, Mexico, D.F. (1995), Universität Bremen (2008, 2013), Technische Universität Braunschweig (1996), Universidad de Zaragoza (2002, 2009), Universidad de la Rioja, Logroño (2002), Heidelberg Universität (2006), Universta di Cagliari (2006, 2009), Jacobs University, Bremen (2009, 2013, 2016), University of Ioannina (2010), Technische Universität Chemnitz (2010), Essen-Duisburg Universität (2010), Ludwig-Maximilians-Universität München (2010), *GAMBRINUS Lecture*, awarded by the Technische Universität Dortmund (2010), Grand Valley State University, Allendale, MI (2014), Brooklyn College, City University of New York (2015), Clarkson University, Postdam, NY (2015)

Invited lectures (selection):

- “Recent Developments in Organometallic Chemistry of Hypervalent Group 15 (Sb, Bi) Compounds” – invited lecture presented at Heidelberg Universität (Germany), Universta di Cagliari (Italy) (2006).
- “Organopnicogen Compounds (M = Sb, Bi) as Ligands in Transition Metal Chemistry” – invited lecture presented at Bremen Universität (Germany) (2008).
- “Recent Results in the Hypervalent Organometallic Chemistry - Organopnicogen Compounds (M = Sb, Bi) as Ligands in Transition Metal Chemistry” – invited lecture presented at Universidad de Zaragoza (Spain), Jacobs University (Germany), Universta di Cagliari (Italy) (2009); Universta di Ioannina (Greece), Technische Universität Chemnitz, Essen-Duisburg Universität, *GAMBRINUS Lecture* at Technische Universität Dortmund (Germany) (2010).
- “Hypercoordinated Organopnicogen (M = Sb, Bi) Compounds – Monomeric Species, Oligomers and Supramolecular Networks” – invited lecture presented at Ludwig-Maximilians-Universität München (Germany) (2010).
- “Main Group Organometallic Chemistry – Unusual Species and Metalloligands” – invited lecture presented at Grand Valley State University, Allendale, MI (2014), Brooklyn College, City University of New York (USA) (2015).
- “Chemistry and Chemical Engineering in Romania - Teaching and Research” – invited lecture presented at Clarkson University, Postdam, NY (USA) (2015)
- “Organometallic Compounds as Building Blocks for Supramolecular Architectures” – invited lecture presented at Jacobs University (Germany) (2016)

Mother tongue(s)

Romanian

Other language(s)

English, Spanish, French

Self-assessment

European level (*)

English

Spanish

French

| Understanding | | Speaking | | Writing | |
|---------------|---------|--------------------|-------------------|---------|--|
| Listening | Reading | Spoken interaction | Spoken production | | |
| C1 | C2 | C2 | C1 | C1 | |
| C1 | C2 | C2 | C2 | B2 | |
| C1 | C2 | B2 | B2 | A2 | |

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences

Excellent and very good relationship with the other members of the teaching and research staff of the Faculty and University, with colleagues from other research groups I collaborated abroad or with the members (undergraduate students, MSc and PhD students, or researchers) of my research group

Organisational skills and competences

- PhD adviser from 1999 (18 thesis defended to obtain the PhD degree)
- Co-director (with Prof. Dr. Ion Grosu) of THE CENTRE OF SUPRAMOLECULAR ORGANIC AND ORGANOMETALLIC CHEMISTRY – CSOOMC. Within this research centre I coordinate the activity of a research group with 3 members of the teaching staff, 4 researchers, 8-10 PhD students, several undergraduate and master students (see WEB page: <http://www.chem.ubbcluj.ro/~ccsoom/organometallic/index.html>)
- Coordinator of the program dedicated to the foundation of the NATIONAL CENTRE FOR X-RAY DIFFRACTOMETRY (Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca), based on a MURC (Multi-User Research Centre) grant offered by the World Bank through the Romanian Minister of Education and Research
- Coordinator of the activity on the basis of which 3 research labs were fully equipped to allow researches in organometallic synthesis, including works with air- and moisture-sensitive compounds, as well as other 2 teaching labs designed for inorganic, coordination and organometallic chemistry (see WEB page: <http://www.chem.ubbcluj.ro/~ccsoom/organometallic/index.html>)

Management Experience:

- Co-director of the project „**Hypervalenz**” (with Prof. Dr. Hans J. Breunig, Bremen Universität, Germany), financed by Deutsches Forschungs Gemeinschaft (2001 – 2003)
- Director of several multi-annual research projects obtained by competition through the National University Research Council, including World Bank grants, Romanian Academy, National Authority for Scientific Research, in the period 1995 – 2014
- Director and coordinator of the project “**Specific Techniques in the Investigation of Organometallic Compounds. Professional education and implementation strategies**” (RO/2004/PL93192/S), within the LEONARDO DA VINCI program of EU (2005-2006)
- Director of the NATIONAL CENTRE FOR X-RAY DIFFRACTOMETRY (Faculty of Chemistry and Chemical Engineering, Babeş-Bolyai University, Cluj-Napoca) (2001 – present)
- Vice-Dean of the Faculty of Chemistry and Chemical Engineering, Babeş-Bolyai University (1996 - 2000)
- Director of the Inorganic Chemistry Department, Faculty of Chemistry and Chemical Engineering (2011 - 2012)
- Director of the Chemistry Department, Faculty of Chemistry and Chemical Engineering (2012 - present)
- Member of the *Committee for Mathematics and Life Sciences – The National University Research Council of Romania* (2006 - 2010)
- President of the *National Committee for Chemistry and Chemical Engineering / Panel 1 – Mathematics and Natural Sciences - CNATDCU* (2011 - 2012)
- Member of the *National Committee for Chemistry and Chemical Engineering / Panel 1 – Mathematics and Natural Sciences - CNATDCU* (2016 -)
- Member of the *Advisory Board for Research - Development and Innovation – National Authority for Scientific Research and Innovation, Ministry of Education and Research* (2016 -)
- Representative of *Romanian Chemical Society* in the *Division of Organometallic Chemistry of European Chemical Sciences - EuCheMS* (2016 -)

Technical skills and competences

Research interests:

Coordination and Organometallic Chemistry of Main Group Metals and Metalloids - synthesis and structural characterization in solution and solid state as well as investigation of biological properties and applications (catalysis, CO₂ activation, material precursors):

- (i) antitumor activity of Main Group organometallic compounds (e.g. tin, antimony);
- (ii) organophosphorus(V) compounds as ligands in coordination chemistry of Main Group and transition metals;
- (iii) hypervalent [hypercoordinated] organometallic Main Group compounds containing organic groups with one or two pendant arms;
- (iv) supramolecular organometallic chemistry

Publications:

- 2 books (co-author Prof. Dr. Ionel Haiduc)
- 4 book chapters
- 213 scientific articles (182 in foreign specialized journals, 31 in national journals – more than 200 papers in ISI journals)

Hirsch index = 31

Sum of the Times Cited = more than 3100 citations

<http://www.researcherid.com/rid/A-3832-2010>

Member of Romanian Society of Chemistry

Editorial activity:

- Regional editor for Organometallic Chemistry at *Open Chemistry* (formerly *Central European Journal of Chemistry*) (<http://www.degruyter.com/view/j/chem?rskey=AVlgGn&result=2>)
- member in the Editorial Board of *Current Inorganic Chemistry* (<http://benthamscience.com/journals/current-inorganic-chemistry/editorial-board/#top>)
- member in the Editorial Board of *Revue Roumaine de Chimie* (<http://revroum.getion.ro/editorial-board>)
- member in the Editorial Board of *Studia Universitatis Babes-Bolyai, Seria Chemia* (<http://chem.ubbcluj.ro/~studiachemia/>)
- member in the Editorial Board of *Revista de Politica Stiintei si Scientometrie (RPSS)* (<http://rpss.inoe.ro/editorial>)

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| | <ul style="list-style-type: none"> - Referee for <i>Coord. Chem. Rev.</i>; <i>Chem. Commun.</i>; <i>Inorg. Chem.</i>; <i>Organometallics</i>; <i>Dalton Trans.</i>; <i>RSC Advances</i>; <i>Eur. J. Inorg. Chem.</i>; <i>J. Organomet. Chem.</i>; <i>Inorg. Chim. Acta</i>; <i>Inorg. Chem. Commun.</i>; <i>Polyhedron</i>; <i>J. Inorg. Biochem.</i>; <i>Eur. J. Med. Chem.</i>; <i>Appl. Organomet. Chem.</i>, <i>Main Group Metal Chem.</i>, etc. |
| | <p>Experience in postdoctoral projects:</p> <ul style="list-style-type: none"> - Coordinator of the research activity of several foreign PhD students (Germany, Spain, Greece) within research stays financed through the project „Homo and Hetero Metal-Metal Bond-Containing Organometallic Compounds - HOHEORGMET” [Contract nr. 19 / 2006] (2006-2007) - Coordinator of the research activity of 4 postdocs (including a foreign one) |
| Computer skills and competences | MS Office, Graphics software (to a certain extent), Chemistry related software (software for various spectroscopic methods, drawing and editing software) |
| Other skills and competences | <ul style="list-style-type: none"> - Corresponding Member of the Romanian Academy (from 2009) - "Gh. Spacu" Award of the Romanian Academy for studies on the antitumor properties of organometallic compounds (1992 - co-authors: Dr. Carmen Socaciu and Dr. Adela Bara) - "Gh. Spacu" Award of the Romanian Society of Chemistry, for the whole activity in the field of chemical sciences (2011 – International Year of Chemistry) - "Senior al Cetatii" distinction, Cluj-Napoca, 2009 - <i>Grant for International Journal Authors</i>, Royal Society of Chemistry (1999) provided for a visit at the Chemistry Department, Oxford University (UK) (Malcolm L. H. Green's research group) - <i>Gambrinus Fellowship</i>, Technische Universität Dortmund (Germany) (2010) |
| Additional information | - |
| Annexes | Full List of publications – on request |

Cluj Napoca
February 10, 2017

Prof. Dr. Cristian SILVESTRU