

PERSONAL INFORMATION

Alexandra Ana CSAVDARI



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Sex: Female | Date of birth: 21/09/1967 | Nationality: Romanian

WORK EXPERIENCE

1990 - present

Associated Professor (since 2008)

Babeş-Bolyai University, 1 Mihail Kogălniceanu Street, Cluj-Napoca, RO-400084, Romania
Faculty of Chemistry and Chemical Engineering
RO-400028, Cluj-Napoca, 11 Arany Janos Street

Positions held at the same employer: **Lecturer** (1998-2008); **Assistant** (1994-1998);
Preparator (1990-1994).

Type of activity: **Education**
(Delivered in Romanian-RO, German-DE, English-EN and / or Hungarian-HU)

- **Undergraduate Courses:** Chemical Kinetics (RO, EN, DE), General Physical Chemistry (RO), Thermodynamics (RO,DE), Electrochemistry (RO, DE), Macromolecular Chemistry (RO); Reaction Engineering and Design (HU), Optimization in Chemical Engineering (RO, HU), Computer Aided Programing and Modelling (RO), Numeric Methods in Physical Chemistry (RO);
- **Postgraduate (Master) Courses:** Physical Chemistry: Advanced Chemical Kinetics, Reaction and Process Dynamics (EN), Computer Aided Programing and Modelling (RO), Dynamics and Energetics of Methabolic Processes (RO); Risk Assessment of Risk, Safety and Security Factors (EN, RO);
- **Other Postgraduate Courses:** General Physical Chemistry (RO), Chemical Kinetics (RO), Chemistry of Living Organisms (RO), Safe Reactor Operation for Fire Prevention (RO); Modern Trends in Chemical Engineering (EN) at Al-Farabi Kazakh National University, Almaty, Kazakhstan;
- **Scientific supervision** of aproximatelly 70 various graduate and postgraduate theses;
- **Scientific supervision** of 12 pedagogical grade I theses (maximum obtainable degree by teachers in the Romanian state educational system);
- **Scientific supervision** of students and their papers at dedicated scientific conferences for students - since 2010 approximately 19 oral communications and posters, in Romania and Hungary; Languages of presentation: Romanian, Hungarian and English – some obtained prizes as best or second best works;
- **Scientific supervision** of students during „Excellence in Research” Sholarships at the Babeş-Bolyai University, Cluj- Napoca (3 Students and many more candidates);
- Recipient of „Diploma of didactic excellency” of UBB for 2017 and 2021.

Type of activity: **Research Topics:**

Researcher ID: U-8854-2017
(on <https://www.researcherid.com>)

Author ID: 15847929600
(on <https://www.scopus.com>)

- Kinetic studies of various homogeneous and heterogeneous reaction systems;
- Kinetic methods of analysis for various inorganic and organic pollutants in water samples;
- Non-linear models in the dynamics of chemical systems;
- Studies on red mud: waste as raw material and dynamics in phyto-remediation processes;
- Preparation dynamics and characterization of some hydro-alcoholic plant extracts;
- Kinetic and thermodynamic studies for the adsorption of various biocides on household materials.

Results:

- 3 Books (1 sole author, 2 co-author), 2 co-edited volumes;
- ISI-metrics according to Google Scholar: H-7, 172 citations, cumulated IF > 35;
- Approximately 80 national and international scientific conference participations (key-note lecture, oral communication, poster);
- Director of 4 national research Grants;
- Team member of 10 other national and 2 international research Grants;
- Coordinator at UBB partner level 1 international research project.

Type of activity:
**Management in research,
education and
educational administration**

- **Director** of national **research Grants** 2001-2008;
- **Scientific Mentor** in the **postdoctoral studies** program POSDRU/89/1.5/S/60189, (Funds from the EU) Beneficiary: Babeş-Bolyai University of Cluj-Napoca, România;
- **Coordinator** of Admission Committee and related events for 3 years (2008, 2009, 2010);
- **Initiator** and **Coordinator** of 5 editions from a total of 9 of the Annual Open Days of the faculty (2010-2014);
- **Member of the Faculty's Council** (2004-2008, 2016-present);
- **Vice-president** of University's Didactic Council (2020-present).

Type of activity:
Consulting in Education

- **Elaboration** of the **academic component** of university's Strategic Plan for 2008-2011;
- Scientific / methodic **coordinator** of **Grade I** theses + Grad I commission coordinator since 2010;
- **PhD examination committee member** – since 2010; 9 PhD candidates (7 at Babeş-Bolyai University, Cluj-Napoca; 2 at "Iuliu Hațieganu" University of Medicine and Pharmacy, Cluj-Napoca);
- **Member** in **admission committees** for **didactic positions** (Lecturer / Associated professor) within Babeş-Bolyai University of Cluj-Napoca (Faculty of Chemistry and Chemical Engineering, Faculty of Psychology and Educational Sciences); Technical University of Cluj-Napoca (Faculty of Engineering, Northern University Center of Baia-Mare); SAPIENTIA Hungarian University of Transylvania, Faculty of Technical and Human Sciences, Târgu-Mureş;
- **Methodic circles + consulting** activities for **chemistry teachers of classes 7-12** (Romanian state schools), of Cluj and Harghita counties on various topics (experimental issues, transdisciplinary approach, preparation of students for national chemistry competitions, etc);
- **Scientific consultancy** in **regional chemistry** and **science competitions** for Romanian state school pupils (development of subjects): Gheorghe Spacu contest, Raluca Ripan contest – almost regularly since 2010;
- **Member of Committee** for admissions as: (i) **Inspectors** in the "Inspectoratul școlar județean (ISJ)" of Cluj county (20 March 2017), and (ii) **School Directors** in schools of Cluj county (18 November 2021)
- **Member** in ISJ Harghita **projects** on **transdisciplinary approach** of natural sciences in Romanian schools: Workshops in Miercurea-Ciuc (05.05.2016) and Bălan (14-15.02.2020);
- **Member** of **scientific jury** for **student scientific conferences** in chemistry and / or chemical engineering at under- and post-graduate level, in Romanian, English and Hungarian;
- **Initiator and Organizer of Student Circles** of the Department of Chemical Engineering (Babeş-Bolyai University of Cluj-Napoca); 2013-2104; 7 meetings.

- Type of activity: **Research – scholarships** (in total of 14.5 months):
- Scholarships related to academic activity**
(1 week to 10 months in: Germany, Hungary, Sweden, Italy, Kazakhstan, Botswana)
- 1.10.1993 – 31.07.1994 – Technische Universität Karlsruhe, **GERMANY**; **DAAD Scholarship**;
 - 3.11.1998 – 1.12.1998 – Eotvos Lorand University of Budapest, **HUNGARY**; World Bank Grant of UBB;
 - 14.01.2002 – 31.03.2002 and 4.07.2002 – 24.07.2002 – Friedrich Alexander University of Erlangen, **GERMANY**; World Bank Grant of UBB;
 - 14.05.2006 – 20.05.2006 – Technical University of Budapest, **HUNGARY**; International cooperation Grant;
- Course – scholarships** (in total of 6 weeks):
- 17.06.2012 – 07.07.2012 – *Intensive Program ECOCYCLES*, Swedish University of Agricultural Sciences, Alnarp, **SWEDEN**, **ERASMUS Lifelong Learning Program** in Education and Culture;
 - 14.07.2013 – 04.08.2013 – *Intensive Program ECOCYCLES*, University of Palermo, Palermo, **ITALY**, **ERASMUS Lifelong Learning Program** in Education and Culture;
- Teaching / Staff training – scholarships** (a total of 5 teaching and 2 staff training mobilities):
- 25.05.2014 – 07.06.2014 and 27.04.2015 – 30.04.2015 – Pannonia University of Veszprém, **HUNGARY**, **ERASMUS and ERASMUS+ Teaching Staff Mobility**;
 - 14.05.2017 – 21.06.2017, 8.05.2018 – 17.05.2018 and 15.04.2019 – 19.04.2019, – Al-Farabi Kazakh National University of Almaty, **KAZAKHSTAN**, **ERASMUS+ Teaching / Training Staff Mobility**;
 - 12.07.2018 – 24.07.2018 and 4.07.2019 – 25.07.2019 – Botswana International University of Science and Technology, Palapye, **BOTSWANA**, **ERASMUS+ Teaching / Training Staff Mobility**.
- Type of activity: **Consulting** at **the European Commission**
- **Consultant and Expert** in Terminology of chemical and chemical engineering for the **EUROPEAN COMMISSION, Directorate-General of Translation** – continuous activity and seminars in Luxembourg (20.09.2012) and Bruxelles (26.06.2015); various contracts for international data bases of chemistry and chemical engineering terms.
- Type of activity: **Active Member of Cultural Society** at **Erdélyi Múzeum Egyesület**, RO-400009, Cluj-Napoca, Romania, 2-4 Napoca Street
- Member of the **Transylvanian Museum Society** (*Erdélyi Múzeum Egyesület*), 2nd Branch „**Natural Sciences**” („*Természettudományi Szakosztály*”) – since 2011, **Vice-president** of the branch since 2017; **President** since 2022;
 - Organizer of annual scientific conference of the Branch (*Erdélyi Természettudományi Konferencia*) - since 2015
 - Organizer (together with president of branch) of monthly scientific meetings – since 2017;
 - Co-author of annual activity reports – since 2018;
 - Co-organizer (together with president of branch) of the branch's scientific presentations at various large-scale, regional cultural manifestations (since 2016).
- Type of activity: **Active Member of Professional Associations**
- Member of the Romanian Society of Chemistry – since **1990**;
 - Member of the Romanian Society of Chemical Engineering – since **1998**;
 - Member of The Hungarian Technical Scientific Society of Transylvania (*Erdélyi Magyar Műszaki Tudományos Társaság*), Branch „**Chemistry**” – since **2004**;
 - Member of the Transylvanian Museum Society (*Erdélyi Múzeum Egyesület*), Branch „**Natural Sciences**” – since **2011**, **Vice-president** of the branch since 2017; **President** since 2022;
 - Member of DECHEMA, Gesellshat für Chemische Technik und Biotechnologie e.V, Germany, 1998-2004.
- Type of activity: **„Science for everyone” – invited presentations, conferences, radio shows, etc**
- Approximately 16 invited open conferences on chemistry, environmental chemistry, chemistry in daily life (*Chemistry around Christmas*; *ChemLove*; *ChemMusic*; etc), research and publication methodology (Delivered in Romanian, Hungarian and English);
 - Approximately 7 invited radio shows and interviews on chemistry in daily life as well as various educational issues of extraordinarily gifted students (Delivered in Romanian and Hungarian);
 - Awarded for the above activity the „*Diploma de Onoare*” of the Romanian Society of Chemistry, 2019

EDUCATION AND TRAINING

- 1996 - 2000 DOCTOR's Degree in Science, CHEMISTRY**
 Romania; Babeş-Bolyai University of Cluj-Napoca; Faculty of Chemistry and Chemical Engineering
 Topic of PhD thesis: „Kinetic Methods of Analysis for Determination of Microelements in Surface and Wastewater”
- 1985-1990 Chemical Engineer**
 Romania; Babeş-Bolyai University of Cluj-Napoca; Faculty of Chemistry and Chemical Engineering
 Specialization: Inorganic Chemical Technology
- 1981-1985 Bachelor's Degree**
 Theoretical (Mathematics & Physics) Highschool „Gheorghe Şincai”, Baia-Mare, Romania

PERSONAL SKILLS

Mother tongue **Romanian**

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C2
German	C1	C1	C1	C1	C2
Hungarian	C1	C1	C1	C1	C1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
 Common European Framework of Reference for Languages

- Computer skills**
- Operation systems from Microsoft and related document management apps
 - Microsoft Office
 - Remote work platforms (Microsoft Teams; Zoom; Google Meet; Skype)
 - Apps for real-time communication in class (Mentimeter, Kahoot)

- Other skills**
- Driving license: B category

- List of professional referees**
- Dr. Graziella Liana TURDEAN – Head of Department at present employer; Contact: graziella.turdean@ubbcluj.ro
 - Dr Laszlo KÉKEDY-NAGY (retired) – Former President of the „Natural Sciences” branch of the *Transylvanian Museum Society*; Former Associated Professor at the Faculty of Chemistry and Chemical Engineering, Babeş-Bolyai University of Cluj-Napoca; Contact: lkekedy@yahoo.com

ADDITIONAL INFORMATION

List of selected publications

P. Ş. Agachi, M. V. Cristea, **A. A. Csavdări**, B. Szilágyi, „*Advanced Process Engineering Control*”, DeGruyter, Berlin/Boston, **2016**, 331 pages, ISBN 978-3-11-030662-0.

A. Csavdări, „*Catalytic kinetic methods in analytical chemistry. Principles and applications*”, **2008**, Colectia „*Știință și Tehnică*”, Editura MEGA (CNCSIS code: 155), Cluj-Napoca, 179 pages, ISBN 978-973-1868-28-8.

E. Rápó, K. Posta, **A. Csavdări**, B.É. Vincze, Gy. Mara, G. Kovács, I. Haddidi, Sz. Tonk, “*Performance Comparison of Eichhornia crassipes and Salvinia natans on Azo-Dye (Eriochrome Black T) Phytoremediation*”, Crystals, 2020, **10**, 565-582.

E-Zs. Kedves, I. Székely, L. Baia, M. Baia, **A. Csavdări**, Zs. Pap, “*The Comparison of the Photocatalytic Performance Shown by TiO₂ and TiO₂/WO₃ Composites - A Parametric and Kinetic Study*”, J. Nanosci. Nanotechnol., **2019**, **19**(1), 356-365.

G. Seilkhanova, A. Rakhym, **A. Csavdări**, “*Preliminary assessment of modified Kazakh natural zeolites as possible sorbents for MnO₄⁻ removal from aqueous solutions*”, Studia Univ. Babeş-Bolyai, Chemia, **2018**, **63**(4), 181-188.

A-M. Gheldiu, A. Csavdari, M. Achim, L. Vlase, I. Tomuță, D. Muntean, “*Kinetics of Zolpidem and its metabolite after single dose oral administration*”, Studia Univ. Babeş-Bolyai, Chemia, **2017**, **62**(24), 179-192.

L. Baia, E. Orban, Sz.Fodor, B. Hampel, E. Kedves, K.Saszet, I. Szekeley, E. Karacsonyi, B. Reti, P. Berki, A. Vulpoi, K. Magyari, **A. Csavdări**, Cs. Bolla, V. Cosoveanu, K. Hemadi, M. Baia, A. Dombi, V. Danciu, G. Kovacs, Zs. Pap, “*Preparation of TiO₂/WO₃ composite photocatalysts by the adjustment of the semiconductors surface charge*”, Materials Science in Semiconductor Processing, **2016**, **42**(1), 66-71.

A. Csavdări, Cs. Rácz, D.M. Sabou, Sz.A. Tonk, I.D. Spiridon, “*Economically Efficient Production of Hydro-Alcoholic Extracts from Medicinal Plants. A Case Study for Mentha Piperita L.*”, Rev. Chimie (Bucharest), **2016**, **67**(10), 1906-1913.

List of significant research grants

- (i) as **Director** (own research grants) – national level:
- **2007-2008**, TOPIC: *Various calibration techniques for kinetic methods applied in analytical chemistry*, Grant CNCSIS, type A; Contract nr. 87GR/28.05.2007.
 - **2004-2006**, TOPIC: *Alternative methods of analysis for surface water pollutants*, Grant CNCSIS, type A; Contract nr. 33374/29.06.2004.
 - **2002-2003**, TOPIC: *Chemical systems with applications in kinetic methods of analysis*, Grant CNCSIS, type AT; Contract nr. 33523/17.07.2002 and Contract nr. 33965/08.07.2003.
 - **2001**, TOPIC: *Applications of artificial neural networks in kinetic methods of analysis*, Grant ANSTI, type T; Contract nr. 7042/2002.
- (ii) as **Member** in Joint applied research projects – national level:
- **Member** and **Scientific manager** (on behalf of the grant Director) of the Consortium of 5 academic and economic partners (2012-2016), Director of Grant: Prof. Dr. Paul Şerban Agachi from the Babeş-Bolyai University of Cluj-Napoca, Romania, TOPIC: *Proactive Operation of Cascade reservoirs in extreme conditions (floods and droughts) by using a comprehensive decision support system (CDSS). Case Study for Jijia Catchment*, Grant code: PN-II-PT-PCCA-2011-3-3.2-0344; Contract nr. 15/2012.
- (iii) as **Member** in international research grants:
- **Member** in a bilateral cooperation grant Hungary – Romania (**2006-2007**), Director of Grant: Prof. Dr. Zoltán Noszticius from the Technical University of Budapest, Hungary, TOPIC: *Non-linear dynamics in chemistry and environmental sciences*, Contract nr. 31/2005.
 - **Member** and **Scientific and managerial coordinator of Romanian team (2013-2016)** of the a research project financed by the Government of Hungary - TÁMOP-4.2.2.A.-1/11/KONV-2012-0071, Module 2_5, Topic: *Red mud and/or other waste exploitation by means of catalytic technologies*.

Cluj-Napoca, on the 30th of January, 2022

