

## PERSONAL INFORMATION

## Dana-Maria SABOU

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Sex F | Date of birth 02/09/1972 | Nationality Romanian

## POSITION Lecturer

## WORK EXPERIENCE

February 2018 - present

## Lecturer

Babeş-Bolyai University, 1 Mihail Kogălniceanu Street, Cluj-Napoca, RO-400084, Romania, <https://www.ubbcluj.ro/>; Faculty of Chemistry and Chemical Engineering, 11 Arany János Street, Cluj-Napoca, RO-400028, <http://chem.ubbcluj.ro/>

*Teaching:* courses of Chemical Kinetics, Advanced Physical Chemistry: Chemical Kinetics, Chemistry of Colloids and Surfaces; lab courses and exercises of physical chemistry (chemical kinetics, chemistry of colloids and surfaces; chemistry of macromolecules). Coordination of graduation theses.

*Research areas:* chemical kinetics; homogeneous electron transfer reactions; solubility, stability of various commercially available products; adsorption from solution.

**Business or sector** Education and research

February 2003 - February 2018

## University assistant

Babeş-Bolyai University, 1 Mihail Kogălniceanu Street, Cluj-Napoca, RO-400084, Romania, <https://www.ubbcluj.ro/>; Faculty of Chemistry and Chemical Engineering, 11 Arany János Street, Cluj-Napoca, RO-400028, <http://chem.ubbcluj.ro/>

*Teaching:* lab courses and exercises of physical chemistry (chemical kinetics, chemistry of colloids and surfaces; chemistry of macromolecules, chemical structure, electrochemistry). Joint coordination of graduation theses.

*Research* in chemical kinetics and mechanisms of homogeneous phase electron-transfer reactions

**Business or sector** Education and research

November 1998 – February 2003

## Ph.D student (full-time)

Babeş-Bolyai University, 1 Mihail Kogălniceanu Street, Cluj-Napoca, RO-400084, Romania, <https://www.ubbcluj.ro/>; Faculty of Chemistry and Chemical Engineering, 11 Arany János Street, Cluj-Napoca, RO-400028, <http://chem.ubbcluj.ro/>

*Teaching:* lab courses and exercises of physical chemistry (mostly chemical kinetics, colloidal chemistry, macromolecules chemistry)

*Research* in the area of chemical kinetics, specifically that of redox reactions in solution.

**Business or sector** Education and research

November 1997 – November 1998

## Trainee Researcher

Institute for Isotopic and Molecular Technologies Cluj-Napoca, Romania (at present: National Institute for Research and Development of Isotopic and Molecular Technologies (INCDTIM); <http://ro.itim-cj.ro/>)

Test samples analysis by gas chromatography, applications in production of gas chromatographs (calibration, optimization).

**Business or sector** Research

## EDUCATION AND TRAINING

1998- 2011 **Ph.D. in Chemistry** EQF 8

Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania  
Ph.D. thesis: *A kinetic study of the oxidation of thiols and mercapto-acids by transitional metal ions*

1.03.2002-31.06.2002 **Research fellowship**

Technical University Graz, Institute of Physical and Theoretical Chemistry, Austria  
Romanian Government Scholarship  
Kinetic studies of fast steps within some redox processes.

1.11.2000-31.01.2001 **Research fellowships**

1.10.2001-31.01.2002  
Technical University Graz, Institute of Physical and Theoretical Chemistry, Austria  
CEEPUS (SK-102) scholarships  
Monitorization techniques for fast reactions in solution.

1996-1997 **Master of Science in Chemistry** EQF 7

Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania  
Specialisation: Modern Methods of Analysis and Control of the Environment and Product Quality  
Dissertation thesis: *Applications of spectrophotometrical methods in chemical kinetics. Evidence of intermediates.*

1991-1996 **Bachelor of Science in Chemistry and Physics** EQF 6

Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania  
Subject area: Chemistry and Physics  
Diploma thesis: *Kinetics of the oxidation reaction of benzylmercaptane with Cr(VI).*

1986-1990 **High school graduate - Baccalaureate** EQF 4

High School of Natural Sciences, Cluj-Napoca, Romania  
Section: Chemistry and Biology  
General education

## PERSONAL SKILLS

Mother tongue Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C2	C1	C1
French	A2	A2	A1	A1	A1

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

Communication skills Very good communication skills, gained through teaching experience.

Organisational / managerial skills	Member in research teams. Coordinator of graduation theses. Part of the two-member team for making the timetable of the faculty (over 10 years).
Job-related skills	Specific research methods in the field of chemical kinetics; ultraviolet and visible spectrophotometry; methods for monitoring fast reactions in solution (continuous and stopped-flow techniques), coupled with detection by spectrophotometry and/or ESR; gas chromatography. Peer reviewer.
Computer skills	Good knowledge of Microsoft Office™ tools, Origin, specific software, internet browsing.
Other skills	Interpersonal abilities, responsibility, attention to detail.

## ADDITIONAL INFORMATION

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Memberships	Romanian Chemical Society
Selected publications	<ol style="list-style-type: none"> <li>1. <b>D.-M. Sabou</b>, I. Bâldea, "Kinetic and Mechanistic Features of the Thiolactic Acid Oxidation by Chromium(VI) in Acidic Environment", <i>Studia UBB Chemia</i>, <b>2018</b>, 63(4), 31-50.</li> <li>2. <b>D.-M. Sabou</b>, A. A. Csavdári, "Combined kinetic response of two substrates with similar reactive patterns", <i>Studia UBB Chemia</i>, <b>2017</b>, 62(1), 19-33.</li> <li>3. <b>D.-M. Sabou</b>, S.-A. Domeanu, P. Ilea, "Spectral Graphite as Electrode Material for the All-Vanadium Redox Flow Battery", <i>Studia UBB Chemia</i>, <b>2015</b>, 60(3), 193-203.</li> <li>4. <b>D.-M. Sabou</b>, I. Bâldea, "On the Oxidation of Glutathione by Chromium (VI) in Aqueous Solution of Perchloric Acid", <i>Studia UBB Chemia</i>, <b>2013</b>, 58(4), 81-99.</li> <li>5. I. Bâldea, <b>D.-M. Sabou*</b>, A. Csavdári, "Oxidation of 2-mercaptopropionic acid by hexacyanoferrate(III). Mechanistic interpretation on the basis of one-plus rate equation", <i>Rev. Roum. Chim.</i>, <b>2009</b>, 54(10), 791-798.</li> <li>6. I. Bâldea, <b>D.-M. Sabou</b>, A. Csavdári, "One-Plus Rate Equation, an Useful Tool to Elucidate the Reaction Mechanism", <i>Studia UBB Chemia</i>, <b>2007</b>, 52(1), 19-34.</li> <li>7. <b>D.-M. Sabou</b>, I. Bâldea, "Kinetics of thiolactic acid oxidation by decavanadate and VO<sub>2</sub><sup>+</sup> in acidic media", <i>Studia UBB Chemia</i>, <b>2004</b>, 49(1), 55-64.</li> <li>8. G. Grampp, S. Landgraf, T. Wesierski, B. Jankowska, E. Kalisz, <b>D.-M. Sabou</b>, B. Mladenova, "Kinetics of the formation of the blue complex, CrO(O<sub>2</sub>)<sub>2</sub> formed by dichromate and H<sub>2</sub>O<sub>2</sub> in acid solutions. A stopped-flow investigation using rapid-scan UV-VIS detection", <i>Monatsh. Chem.</i>, <b>2002</b>, 133(10), 1363-1372.</li> <li>9. G. Grampp, S. Landgraf, <b>D. Sabou</b>, D. Dvoranova, "Application of Marcus cross-relation to mixed inorganic-organic redox couples. A stopped-flow study of the oxidation of N,N,N',N'-tetramethyl-p-phenylenediammine with various oxidants", <i>J. Chem. Soc., Perkin Trans. 2</i>, <b>2002</b>, 178-180.</li> <li>10. I. Bâldea, <b>D. M. Sabou</b>, "A comparative study on the oxidation of hydroxy- and mercapto-compounds by Cr(VI)", <i>Studia UBB Chemia</i>, <b>2001</b>, 46(1), 17-33.</li> </ol>