

CURRICULUM VITAE

PERSONAL DATA

- **Name:** Claudia Butean (Drinkal)
- **Adress :** prof.dr. Gheorghe Marinescu 1A/7 st., Baia Mare, Maramureş, 430113, Romania
- **Date and Place of Birth:** 06 November 1968, Baia Mare, Maramureş, Romania
- **email:** dee1168@yahoo.com

PROFESSIONAL DATA

• Education:

- 1982-1987** "Emil Racovita" Biochemistry High School
- 1989-1994** Polytechnic University of Bucharest (Romania), Faculty of Inorganic Chemistry. Degree received: engineer
- 1994-1995** Polytechnic University of Bucharest (Romania), Faculty of Inorganic Chemistry, Master in Chemistry, Title of Thesis "Performant Methods used in Monitoring and Measurement of the Environment"
- 15.08.2005** PhD, Environmental Chemistry, Title of Doctoral Thesis: "Heavy metal wastewater treatment and recovery using ion exchange"

• Work experience:

- 07.1995 - 10.1997** "Quartz" Trade Company Baia Mare, Environmental Division, Chemist Engineer, Responsible for policies and systems of environmental impact assessment in Baia Mare area
- 02.1998 - 10.2004** Assistant Professor, North University Baia Mare, Chemistry Department; Courses Taught: Inorganic Chemistry, Environmental Chemistry
- 10.2004 - present** Lecturer, North University Baia Mare, Chemistry Department; Course Taught: Inorganic Chemistry, Environmental Chemistry, Laboratory Techniques

- **Summer schools:** Optoelectronic Techniques for Environmental Monitoring and Risk assessment, OTEM2006, 31 July - 09 August, 2006, North University Baia Mare, Baia Mare, Romania

• Courses:

Advanced e-learning cours, 4 march – 8 april 2005, 21 credits

• Foreign language knowledge

English, French, Hungarian – Good Competence in writing, reading, speaking

• Expert areas and significant results

- Ion exchange equilibria and kinetics. Experimental determination of H^+/M^+ , M^{2+} ion exchange isotherms on strong acid resins with different texture at constant temperature and constant total equivalent concentration. These isotherms give the selectivity series for each resin, permit selecting the best resin to remove the sought ion from a specific wastewater and to model the ion exchange processes in multicomponent systems;
- Modeling of the experimental data with the Surface Complexation Model (Hoell Model) and determining the equilibrium constants;
- Determination of the type of adsorption isotherm that best fits experimental results for the selected systems, determination of the heterogeneity degree of resin matrix surface.
- Determination of heavy metals in waters using atomic absorption spectrophotometry.
- Statistical Data Analysis
- Laboratory Management

• Representative papers in the competence area

1. Claudia Drinkal, Chromium removal from wastewaters using ion exchange, *Scientific Buletin*, North University Baia Mare, B Series, Volume XIV, p. 33-39, Baia Mare, 2001.
2. Ana Maria S. Oancea, Cristian Matei, Claudia Drinkal, Eugen Pincovschi, H^+/Cu^{2+} ion exchange kinetics on strong acid microporous Vionit CS 3 resin, *Science and Technology of Environmental Protection*, 10(1), 219-38, 2003.
3. Ana Maria S. Oancea, Claudia Drinkal, Cristian Matei, Marius Rădulescu, Eugen Pincovschi, H^+/Cu^{2+} ion exchange kinetics on macroporous versus microporous strong acid resins, the 13-th Romanian International Conference on Chemistry and Chemical Engineering, RICCE 13, September 16-20, București, Poster, Sector 1, P12, p.3, 2003.
4. Ana Maria S. Oancea, M. Rădulescu, Vicky Dicu, Claudia Drinkal, Eugen Pincovschi, Textural effects of the resins matrix of proton – Cd II ion exchange kinetics, The 4th International Conference of the Chemical Societies of the South – East – European Countries on Chemical Sciences in Changing Times: Vision, Challenges and Sollutions, ICOSECS 4, Belgrade, July 18-21, Book of Abstracts, Vol. II, 197, 2004.
5. Ana Maria S. Oancea, Claudia Drinkal, Surface Complexation Model Applied to Ion Exchange Equilibria on a Strong Acid Hypercrosslinked Resin, The 14th Romanian International Conference on Chemistry and Chemical Engineering, RICCE 14, September 22-24, București, 2005.
6. Ana Maria S. Oancea, Claudia Drinkal, Ion Exchange Equilibria on Three Generations of Strong Acid Polystyrenic Exchangers, International Workshop on Frontiers and Interfaces of ion Exchange, Poster Section, P76, Antalya, Turkey, 11-15 June 2006.
7. Ana Maria S. Oancea, Claudia Drinkal, W. H. Höll, Langmuir and Surface Compexation Models for Ion exchange Equilibria on strong acid resins, *Journal of Ion Exchange, Japan Association of Ion Exchange*, Vol. 14, No. 4, October 2007, 18-23, ISSN 0915-860X.
8. Ana Maria S. Oancea, Vicky Dicu, Anca Razvan, Claudia Drinkal, Eugen Pincovschi, H^+/Cu^{2+} ion exchange kinetics on Duolite CS 101 resin, *Science and technology of Environmental Protection*, Journal of the Independent Society for Environmental Protection, Bucharest, Romania, ISSN-1221-6909, 12(1), 2005, p. 12-20;
9. Ana Maria S. Oancea, C. Drinkal, W. H. Höll, Evaluation of ion exchange equilibria on strongly acidic ion exchangers with gel-type, macroporous and macronet structure, *Reactive and Functional polymers*, 68, 2008, p. 492-506; FI 1.7

Grants obtained by the team members

Grant type A CNCSIS no. 40528/05.11.2003, Theme 3, Cod CNCSIS 137, Structural and textural effects of the strong acid resins matrix of proton – Cd II and proton – Cu II ion exchange kinetics

Level 1, 2003: Structural and textural effects of the strong acid resins matrix of proton – Cu II exchange kinetics

Level 2, 2004: Structural and textural effects of the strong acid resins matrix of proton – Cd II ion exchange kinetics

Project manager: Prof. dr. chim. Ana Maria S. Oancea, "Polytehnica" University Bucharest, Department of Inorganic Chemistry.

Grant CNCSIS 75/2006, Thermodynamic and kinetic ion exchange studies involved in environmental protection and green chemistry.

Co-author of books:

1. Z. Berinde, C. Drinkal, "Dictionary of Chemical Elements", Ed. Cub Press22, 2002, ISBN: 973-98684-5-2, 272 p.
2. Z. Berinde, C. Drinkal, C. Corpodean "Chemistry for performance and excellence

- classes” Ed. Dacia Educațional, Cluj Napoca, 2003, ISBN 973-35-1745-3, 232 p.
3. A. Ambrus, A. Peter, C. Drinkal, Practical guide for organic chemistry laboratories, Ed. Risoprint Cluj Napoca, 2003, ISBN 973-656-517-3, 102 p.
 4. G. Oprea, C. Drinkal, Inorganic chemistry –practical guide for experimental work, Ed. Risoprint Cluj Napoca, 2004, ISBN 973-656-587-4, 87 p.
 5. Z. Berinde, C. Drinkal, M. Ghiurco, A. Pop, V. Chiorean - "101 problems with oleum" Ed. Cub Press 22, 2002, ISBN: 973-986884-8-7, 147 p.
 6. Z. Berinde, C. Drinkal, N. Predoiu – “Chemistry of aqueous solutions – exercices”, Ed.Cub Press 22, Baia Mare, 2007, ISBN 978-973-9451-14-7, 200 p.
- Professional organization member:** Chemical Society of Romania
- Computer skills:** Microsoft word, Excel, PowerPoint, Origin

Claudia Drinkal, PhD.