

INFORMAȚII PERSONALE



Adrian M.V. Brânzanic

Sexul | Data nașterii | Naționalitatea

EDUCAȚIE ȘI FORMARE

01/10/2007–01/07/2011	B. Sc. in Chemical Engineering Babeș-Bolyai University, Cluj-Napoca (România)	Nivelul 6 CEC
01/10/2011–01/07/2013	M. Sc. in Chemical Engineering Babeș-Bolyai University, Cluj-Napoca (România)	Nivelul 7 CEC
01/10/2013–Prezent	PhD in Chemistry Babeș-Bolyai University, Cluj-Napoca (România)	Nivelul 8 CEC
01/07/2014–31/08/2014	SOE-DAAD placement Leipzig University, Leipzig (Germania)	
05/09/2014–10/09/2014	MatCatNet Workshop “From Molecules to Functionalised Materials” Ohrid (Macedonia de Nord)	
01/05/2015–31/05/2015	POSDRU placement Lund University, Lund (Suedia)	
01/09/2015–30/09/2015	POSDRU placement Lund University, Lund (Suedia)	
30/11/2015–16/12/2015	Research Stay Lund University, Lund (Suedia)	
02/06/2016–05/07/2016	Research Stay Lund University, Lund (Suedia)	
25/07/2016–29/07/2016	Summer School on Molecular Boron Chemistry Julius-Maximilians-University, Wurzburg (Germania)	
18/12/2017–21/12/2017	33rd Winter School in Theoretical Chemistry - Molecular Energy and Electron Transfer University of Helsinki, Helsinki (Finlanda)	
05/04/2019–02/05/2019	Research Stay	

University of Georgia, Athens (Statele Unite ale Americii)

COMPETENȚE PERSONALE

Limba(i) maternă(e) română

Limbile străine

engleză

ÎNȚELEGERE		VORBIRE		SCRIERE
Ascultare	Citire	Participare la conversație	Discurs oral	
C2	C2	C1	C1	B2

Niveluri: A1 și A2: Utilizator elementar - B1 și B2: Utilizator independent - C1 și C2: Utilizator experimentat
 Cadrul european comun de referință pentru limbi străine

Competențe dobândite la locul de muncă

- Electronic structure calculations
 - Predominantly DFT
 - Semiempirical
 - Basic multireference methods
- Molecular Mechanics
 - Molecular dynamics (simple, quench and annealing dynamics)
 - Monte Carlo related methods (adsorbtion, docking)
 - Coarse Grain dynamics (experience only with the Martini force field)
- QM/MM (medium experience)
- Related software packages:
 - Experienced with **Gaussian**, **Turbomole**, **Materials Studio** (Forcite, Mesocite, MesoDyn, GULP, VAMP, Sorption, Conformers, Adsorbtion Locator, Amorphous Cell, CASTEP,DFTB+,DMol3), **Spartan**, Hyperchem, Chemcraft, Chimera, ViewerLite, Molden, Mercury, Multiwfn.
 - Basic with Jimp2, Mopac, Molcas, WebMO.
- Programming skills
 - Basic use of UNIX and Linux.

INFORMAȚII SUPLIMENTARE

Publicații

9. **Adrian M.V. Brânzanic**, Ulf Ryde, Radu Silaghi-Dumitrescu, *Importance of the iron – sulfur component and of the siroheme modification in the resting state of sulfite reductase*, Journal of Inorganic Biochemistry, **2020**, 203, 110928.
8. **Adrian M.V. Brânzanic**, Ulf Ryde, Radu Silaghi-Dumitrescu, *Why does sulfite reductase employ siroheme?*, Chemical Communications, **2019**, 55, 14047-14049.
7. Ilia A. Dereven'kov, Luciana Hannibal, Pavel A. Molodtsov, **Adrian M.V. Brânzanic**, Radu Silaghi-Dumitrescu, Sergei V. Makarov, *Kinetic, spectroscopic and in silico characterization of the first step of the reaction between glutathione and selenite*, Inorganica Chimica Acta, 499, 119215, **2020**.
6. Amr. A. Attia, **Adrian M.V. Brânzanic**, Alvaro Muñoz-Castro, Alexandru Lupan, Rober B. King, *Cationic Gold Clusters with Eight Valence Electrons: Possible Spherical Aromatic Systems with Sigma Holes*, Physical Chemistry Chemical Physics, 21, 17779-17785, **2019**.
5. Mihai Surducun, **Adrian M.V. Brânzanic**, Radu Silaghi-Dumitrescu. *Heme Fe-SO₂- intermediates in sulfite reduction: Contrasts with Fe-OO₂- species from oxygen–oxygen bond activating systems*. International Journal of Quantum Chemistry 118 (19), e25697, **2018**.
4. **Adrian M. V. Brânzanic**, Alexandru Lupan, R. Bruce King. *Dimetallaborane Analogues of the Octaboranes of the Type Cp₂M₂B₆H₁₀: Structural Variations with Changes in the Skeletal Electron Count*. Dalton Transactions, 45, 9354-9362, **2016**.
3. **Adrian M. V. Brânzanic**, Alexandru Lupan, R. Bruce King. *Dimetallaborane Analogues of Pentaborane*. Dalton Transactions, 44, 7355-7363, **2015**.

2. **Adrian M. V. Brânzanic**, Alexandru Lupan, R. Bruce King. *The Wade-Mingos Rules in Seven-Vertex Dimetallaborane Chemistry: Hydrogen-Rich $Cp_2M_2B_5H_8$ Systems of the Second and Third Row Transition Metals*. *Journal of Organometallic Chemistry*, 792, 74-80, **2015**.

1. **Adrian M. V. Brânzanic**, Alexandru Lupan, R. Bruce King. *Six-Vertex Hydrogen-Rich $Cp_2M_2B_4H_8$ Dimetallaboranes of the Second- and Third-Row Transition Metals: Effects of Skeletal Electron Count on Preferred Polyhedra*. *Organometallics*, 33(22), 6443-6451, **2014**.

Conferințe

13. 9th Molecular Modeling in Chemistry and Biochemistry, 28-30 October 2018, Cluj-Napoca, Romania. - Oral presentation.

12. A XXXV-a Conferinta Nationala de Chimie, Caciulata, Romania, 2-5 October **2018**. - Oral presentation.

11. The XI All-Russian School-Conference of Young Scientist - Theoretical and experimental chemistry of liquid-phase systems, Ivanovo, Russia, 30 October - 4 November 2017- Oral presentation, **awarded 1st prize**.

10. 11th Triennial Congress of the World Association of Theoretical and Computational Chemistry, Munich, Germany, 27 August – 1 September **2017**. – Poster presentation.

9. 16th International Meeting on Boron Chemistry (IMEBORON XVI), Hong Kong, China, 9-13 July **2017**. – Poster presentation.

8. International Conference Bio-Nano-Math-Chem, Cluj-Napoca, Romania, 28-30 June **2017**.- Poster presentation.

7. 8th Russian School-Conference of Young Scientists: "Quantum-chemical calculations. Structure and reactivity of organic and inorganic molecules", Ivanovo, Russia, 24-26 April **2017**. - Oral presentation, **awarded 1st prize**.

6. 8th Molecular Modeling in Chemistry and Biochemistry, Cluj-Napoca, 13-15 November, **2016**. – Oral presentation.

5. 8th Molecular Quantum Mechanics, Uppsala, Sweden, 26 June – 1 July **2016**. – Poster presentation.

4. 1st Young Researchers' International Conference on Chemistry and Chemical Engineering, Cluj-Napoca, Romania, 12-14 May **2016**. – Oral presentation.

3. 10th European Conference on Computational Chemistry, Fulda, Germany, 31 August – 3 September **2015**. – Poster presentation.

2. 7th Molecular Modeling in Chemistry and Biochemistry, Cluj-Napoca, 13-15 November, **2014**. – Oral presentation.

1. A XXXIII-a Conferinta Nationala de Chimie, Caciulata, Romania, 1-3 October **2014**. - Oral presentation.