

PERSONAL INFORMATION

Roxana NICOLA (b. CRIȘAN)



Sex F | Date of birth [REDACTED] Nationality Romanian

WORK EXPERIENCE

10.2015 - present

Research Assistant

Institute of Chemistry Timisoara of Romanian Academy, Mihai Viteazul Street No. 24

<http://acad-icht.tm.edu.ro/tm.edu.ro/>

- Research on synthesis and characterization of iron oxide nanoparticles and nanocomposites containing iron oxide; Dissemination of scientific results

Business or sector Nanostructured oxidic materials

EDUCATION AND TRAINING

2015 – present

PhD student (chemistry)

School of Advanced Studies of the Romanian Academy (SCOSAAR)

Supervisor: Dr. Chim. Otilia Costișor, Proposed title of the PhD Thesis:

Micro and nanostructured magnetic materials with designed functionality

Iron oxide synthesis, Characterization methods of nanostructured materials.

2012-2014

Master Degree on Chemical analysis techniques with applications in the food, cosmetics and pharmaceutical industry

Chemistry-Biology-Geography Faculty, Chemistry Department, West University of Timisoara

Supervisor: dr. Dorina Modra, Title of the Master Thesis:

Study of Salicylic Aldehyde, Perfume Component

Chemical analysis techniques, organic structural analysis, experimental techniques in inorganic synthesis, pharmaceutical products, toxicity control of organic compounds, laboratory analysis in chemistry

2009 - 2012

Bachelor in Environmental Chemistry

Chemistry-Biology-Geography Faculty, Chemistry Department, West University of Timisoara

Supervisor: Dr. Modra Dorina. Title of the Bachelor Thesis:

Synthesis of Salicylic Aldehyde-perfume component

Organic and inorganic chemistry, physics, analytical chemistry, ecotoxicology, biochemistry, physical chemistry, technological chemistry

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
Replace with name of language certificate. Enter level if known.					
French	A2	A2	A2	A2	A2
Replace with name of language certificate. Enter level if known.					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills

Teamwork skills, motivation, excellent communication skills gained through my participation to international conferences and workshops

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Independent user	Independent user

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

Replace with name of ICT-certificates

ECDL- European Computer Driving Licence

Driving licence B

ADDITIONAL INFORMATION

Publications

1. **Roxana CRIȘAN**, Dorina MODRA (2013), *The Synthesis of Salicylaldehyde Varying Different Parameters*, Annals of West University of Timișoara, Series of Chemistry, 22(2), 57-66.
2. **Roxana CRIȘAN**, Cătălin IANĂȘI, Aurel ERCUȚA, Paula SFÎRLOAGĂ, Daniel NIŽŇANSKÝ, Cecilia SAVII (2014), *Particle size and magnetic properties of magnetic iron oxide and synthesis variable correlations*, Proceeding of The 20th International Symposium on analytical and Environmental Problems, ISBN 9631211614, 9789631211610, pp. 87-90.
3. **Roxana NICOLA (b. CRIȘAN)**, Otilia COSTIȘOR, Cătălin IANĂȘI, Radu LAZĂU, Liviu SĂCĂRESCU, Daniel NIŽŇANSKÝ, Aurel ERCUȚA, Ana-Maria PUTZ, Cecilia SAVII (2018), *Fractal surface maghemite nanoparticles prepared by co-precipitation: the influence of iron concentration and base nature*, STUDIA UBB CHEMIA, LXIII, 4, pp. 15-29, DOI:10.24193/subbchem.2018.4.02.
4. Mirela PICIORUȘ, Ana-Maria PUTZ, **Roxana NICOLA**, Adelina ANDELESCU, Cătălin IANĂȘI, Paula SFÎRLOAGĂ, Cecilia SAVII (2018), *Sol gel derived silica matrix. Solution Concentration of the supplied catalyst influence upon nanoporous material morpho-textural properties*, NEW FRONT. CHEM. 27(2), pp. 51-65
5. Cătălin IANĂȘI, Mirela PICIORUȘ, **Roxana NICOLA**, Mihaela CIOPEC, Adina NEGREA, Daniel NIŽŇANSKÝ, Adel LEN, Laszlo ALMASY, Ana-Maria PUTZ (2019), *Removal of cadmium from aqueous solutions using inorganic porous nanocomposites*, Korean Journal of Chemical Engineering, 36(5), pp. 688-700, DOI: 10.1007/s11814-019-0262-6
6. **Roxana NICOLA**, Otilia COSTIȘOR, Simona-Gabriela MUNTEAN, Maria-Andreea NISTOR, Ana-Maria PUTZ, Cătălin IANĂȘI, Radu LAZĂU, Laszlo ALMASY, Liviu SĂCĂRESCU (2019), *Mesoporous magnetic nanocomposites: a promising adsorbent for the removal of dyes from aqueous solutions*, Journal of Porous Materials, DOI:10.1007/s10934-019-00821-y
7. Elena-Mirela PICIORUȘ, Cătălin IANĂȘI, **Roxana NICOLA**, Paula SFÎRLOAGĂ, Paula SVERA, Ana-Maria PUTZ (2020) *Morpho-Textural and Fluorescence Studies on SiO₂ and SiO₂@Ce³⁺*, STUDIA UBB CHEMIA, LXV, 1, pp. 189-203, DOI:10.24193/subbchem.2020.1.15
8. **Roxana NICOLA**, Otilia COSTIȘOR, Mihaela CIOPEC, Adina NEGREA, Radu LAZĂU, Cătălin IANĂȘI, Elena-Mirela PICIORUȘ, Adél LEN, László ALMÁSY, Elisabeta I. SZERB, Ana-Maria PUTZ, (2020) *Silica-Coated Magnetic Nanocomposites for Pb²⁺ Removal from Aqueous Solution*, Applied Sciences, 10, 2726; doi:10.3390/app10082726
9. **Roxana NICOLA**, Simona-Gabriela MUNTEAN, Maria-Andreea NISTOR, Ana-Maria PUTZ, László ALMÁSY, Liviu SĂCĂRESCU (2020) *Highly efficient and fast removal of colored pollutants from single and binary systems, using magnetic mesoporous silica*, Chemosphere, 261, 127737, <https://doi.org/10.1016/j.chemosphere.2020.127737>

Posters

1. Adelina ANDELESCU, **Roxana CRIȘAN**, Cecilia SAVII
The influence of Fe²⁺ ionic state alteration in FeCl₂·4H₂O precursor upon magnetite synthesis. Analytical study
The 7th Edition of the Symposium with International Participation, New Trends and Strategies in the Chemistry of Advanced Materials with Relevance in Biological Systems, Technique and Environmental Protection, 5-6 iunie 2014, Timișoara, ISSN: 2065-0760

Presentations
Conferences
Seminars
Courses
Certifications

2. Roxana CRIȘAN, Cecilia SAVII

The influence of synthesis variables on the magnetite formation by co-precipitation technique

The 7th Edition of the Symposium with International Participation, New Trends and Strategies in the Chemistry of Advanced Materials with Relevance in Biological Systems, Technique and Environmental Protection, 5-6 iunie 2014, Timișoara, ISSN: 2065-0760.

3. Roxana CRIȘAN, Cătălin IANĂȘI, Aurel ERCUȚA, Paula SFÂRLOAGĂ, Daniel NIŽŇANSKÝ, Cecilia SAVII

Particle size and magnetic properties of magnetic iron oxide and synthesis variable correlations

The 20th International Symposium on Analytical and Environmental Problems, Szeged, 2014

4. Roxana CRIȘAN, Cătălin IANĂȘI, Aurel ERCUȚA, Daniel NIŽŇANSKÝ, Liviu SĂCĂRESCU, Cecilia SAVII

The synthesis of nano-meter sized maghemite with high surface area and superparamagnetic behavior

The 8th Edition of the Symposium with International Participation, New Trends and Strategies in the Chemistry of Advanced Materials with Relevance in Biological Systems, Technique and Environmental Protection, 4-5 iunie 2015, Timișoara, ISSN: 2065-0760

5. Roxana CRIȘAN, Cătălin IANĂȘI, Radu LAZĂU, Liviu SĂCĂRESCU, Daniel NIŽŇANSKÝ, Aurel ERCUȚA, Cecilia SAVII

Synthesis and Characterization of Superparamagnetic Fe₂O₃ and Fe₂O₃@mSiO₂ Template Nanocomposites

The 9th Edition of the Symposium with International Participation, New Trends and Strategies in the Chemistry of Advanced Materials with Relevance in Biological Systems, Technique and Environmental Protection, 09-10 iunie 2016, Timișoara, ISSN:2065-0760

6. Roxana NICOLA (b. CRIȘAN), O. COSTIȘOR, C. IANĂȘI, R. LAZĂU, L. SĂCĂRESCU., D. NIŽŇANSKÝ, C. SAVII

Synthesis and characterization of iron oxide nanoparticles coated with mesoporous silica via surfactant template sol-gel method. Influence of CTAB/SiO₂ ratio upon morpho-textural properties

Nano-Modeling Of Strategic Materials For Knowledge Economy (NANO-MOD) Edition I 16-17 Mai 2018, Timisoara, Romania, Workshop Universitatea de Vest

7. Roxana NICOLA (b. CRIȘAN), C. IANĂȘI, L. SĂCĂRESCU, D. NIŽŇANSKÝ, C. SAVII

The influence of oleic acid shell thickness on the morpho-structural and magnetic properties of iron oxide nanoparticle

New Trends And Strategies In The Chemistry Of Advanced Materials With Relevance In Biological Systems, Technique And Environmental Protection, 28-29 iunie 2018, Timisoara, Romania, p. 83, Proceedings of the 11th Edition of the Symposium

8. Cătălin IANĂȘI, Ana-Maria PUTZ, Mirela PICIORUȘ, Roxana NICOLA (b. CRIȘAN), Cecilia SAVII

Influence of PVA in textural proprieties with temperature

New Trends And Strategies In The Chemistry Of Advanced Materials With Relevance In Biological Systems, Technique And Environmental Protection, 28-29 iunie 2018, Timisoara, Romania, p. 89, Proceedings of the 11th Edition of the Symposium

9. Roxana NICOLA, Cătălin IANĂȘI, Mirela PICIORUȘ, Sorina ILIEȘ, Ana-Maria PUTZ, Radu LAZĂU, Aurel ERCUȚA

Conventional and ultrasonic grafting of silica onto superparamagnetic iron oxide nanoparticles

The 10th Edition of the Symposium with International Participation, New Trends and Strategies in the Chemistry of Advanced Materials with Relevance in Biological Systems,

Technique and Environmental Protection, 06-70 iunie 2019, Timișoara, ISSN:2065-0760

Oral presentations

1. Roxana CRIȘAN, Cătălin IANĂȘI, Aurel ERCUȚA, Daniel NIŽŇANSKÝ, Liviu SĂCĂRESCU, Cecilia SAVII

Magnetic and structural studies of maghemite nanoparticles obtained by magnetite oxidation

9th Central European Training School on Neutron Technique, 2015, Budapesta, Ungaria

2. Roxana CRIȘAN, Cătălin IANĂȘI, Aurel ERCUȚA, Daniel NIŽŇANSKÝ, Liviu SĂCĂRESCU, Cecilia SAVII

Nano-meter sized maghemite with high surface area and superparamagnetic behavior synthesis by oxidation of magnetite

11th Conference for Young Sciences in Ceramics, SM-2015 ESR Workshop, COST IC1208, 21-24.10.2015, Novi Sad, Serbia

3. Ana-Maria PUTZ, Laszlo ALMÁSY, Adel LEN, Zoltan DUDÁS, Cătălin IANĂȘI, **Roxana NICOLA (b. CRIȘAN)**, Mirela PICIORUȘ, Cecilia SAVII

SANS characterization of functionalized silica materials obtained by co-condensation and post-grafting

New Trends And Strategies In The Chemistry Of Advanced Materials With Relevance In Biological Systems, Technique And Environmental Protection, 28-29 Iunie 2018,

Timisoara, Romania, p. 61 Proceedings of the 11th Edition of the Symposium

4. Ana- Maria PUTZ, Laszlo ALMÁSY, Cătălin IANĂȘI, Mirela PICIORUȘ, **Roxana NICOLA (b. CRIȘAN)**, Adel LEN, Zoltan DUDAS, Réka BARABÁS, Melinda RIGO, Marius MIRICA, Bogdan ȚĂRANU, Cecilia SAVII

Drug delivery systems. Structure analysis of functionalized silica carrier and preliminary drug loading - release tests

Nano-Modeling Of Strategic Materials For Knowledge Economy (NANO-MOD) Edition I 16-17 May 2018, Timisoara, Romania, Workshop Universitatea de Vest

5. Roxana NICOLA, Cătălin IANĂȘI, Mirela PICIORUȘ, Sorina ILIEȘ, Ana-Maria PUTZ, Radu LAZĂU, Aurel ERCUȚA, Magnetic nanocomposites containing iron oxide@SiO₂ obtained via conventional or ultrasonic method

13th Conference for Young Scientists in Ceramics, October 16-19, 2019 Novi Sad, Serbia

Projects

Contract number: position 42 from JINR Order no. 322/21.05.2018, position 41 from JINR Order no. 397/27.05.2019 and position 39 from JINR Order no. 269/20.05.2020, within the framework of scientific cooperation between Romania and JINR Dubna, theme no. 04-4-1121-2015/2020.

Project Title: Structural investigations of functionalized mesoporous silica by means of small angle neutron scattering and other methods

