

PERSONAL INFORMATION



Cristina-Aurica BOGATU (born Iosif)

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Sex female | Nationality romanian

WORK EXPERIENCE

October 2020 - present

Associate Professor

Transilvania University of Brasov, 29 Eroilor Blv, code 500036, www.unitbv.ro

- Teaching activities for undergraduate and master students in the field of: general chemistry, inorganic chemistry, physical-chemistry, environmental chemistry, mass transfer, colloidal chemistry and surface chemistry, advanced materials for product design and environment.
- Mentor for Diploma thesis and for Master thesis.
- Research activities within the Centre: Renewable Energy Systems and Recycling in the field of multifunctional materials for solar energy conversion and for advanced wastewater treatment (modelling, synthesis, characterization and applications).

March 2006 - September 2020

Lecturer

Transilvania University of Brasov, 29 Eroilor Blv, code 500036, www.unitbv.ro

- Teaching activities) for undergraduate and master students in the field of: general chemistry, inorganic chemistry, physical-chemistry, environmental chemistry, mass transfer, colloidal chemistry and surface chemistry
- Mentor for Diploma thesis and co-mentor for Master thesis.
- Research activities within the Centre: Renewable Energy Systems and Recycling in the field of multifunctional materials for solar energy conversion and for advanced wastewater treatment (modelling, synthesis, characterization and applications).

October 2002 - March 2006

Assistant Professor

Transilvania University of Brasov, 29 Eroilor Blv, code 500036, www.unitbv.ro

- Teaching activities for undergraduate students: general chemistry, inorganic chemistry, physical-chemistry, environmental chemistry, colloidal chemistry and surface chemistry;
- Co-Mentor for Diploma thesis ;
- Research activities in Transilvania University of Brasov.

March 2000 - September 2002

Tutor

Transilvania University of Brasov, 29 Eroilor Blv, code 500036, www.unitbv.ro

- Teaching activities (laboratories, seminars) for undergraduate students: general chemistry, inorganic chemistry, physical-chemistry;

- Research activities in Transilvania University of Brasov.

September 1998 – October 1998

Chemistry teacher

Secondary School Prejmer, Braşov

- Chemistry teaching activities in high school.

EDUCATION AND TRAINING

April 2014 – November 2015

Postdoctoral studies

Level 8

Transilvania University of Brasov, The Centre: Renewable Energy Systems and Recycling

- Research in the field of advanced photocatalytic systems obtained through cold spray deposition of nanoparticle's dispersion (inks) photocatalytic.

Program Title: Advanced Photocatalytic Systems – Photocatalytic dispersions

October 1998 – February 2010

PhD Studies – PhD from July 28th 2010

Level 8

University of Bucharest, Faculty of Chemistry

- The program aimed to investigate the high pressure phase behaviour of the systems consisting of refrigerant and organic lubricants (alkylbenzenes), used in refrigeration industry.

The PhD program title: Thermodynamic characterization of organic systems at extreme pressure.

October 2001 – July 2002

Master studies/ Master Degree

Level 7

Transilvania University of Brasov, Faculty of Materials Science,

Study program: Optimization of the Metallurgical Processes

- Specific disciplines in the field of materials characterisation and metallurgical processes.

October 1998 – July 2000

Master studies/ Master Degree

Level 7

University of Bucharest, Faculty of Chemistry

Study program: Physical-Chemistry and Radiochemistry

- Disciplines: structure, thermodynamics and kinetics of the processes, polymers and macromolecules, radiochemistry, isotopes, high pressure phase equilibria, processes at high temperature.

October 1994 – July 1998

Bachelor studies/ bachelor degree in Chemistry and Physics

Level 6

- Transilvania University of Brasov, Faculty of Sciences, study program: Physical - Chemistry
- Disciplines: general and inorganic chemistry, organic chemistry, physical chemistry, analytical chemistry, mechanics, electricity, optics, atomic and nuclear physics, algebra, mathematical analysis, special mathematics, pedagogy.

Specialization Courses

14-27 iulie, 2014

- Summer school: eseia International Summer School, "Smart Metropolitan Regions for Tomorrow", Brasov, 14-27 July, 2014

15-16 martie 2010

- Course on Modern Electro-chemical Methods - EMPA Institute, Thun, Switzerland, 15-16 March 2010

20-22 Septembrie 2009

- Course on Bioceramics- Materials for Implants - Transilvania University of Brasov and TUDelft, 2009

PERSONAL SKILLS

Mother tongue(s) Romanian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
French	B1	B1	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

Common European Framework of Reference for Languages

Communication skills

- Good communication skills acquired during the didactical /teaching activities or as tutor for the students from the study program: Environmental Engineering (students from the first year of study)
- Good communication skills of the scientific results as proved by list of publication and by the active participation at national and international conferences.
- Good communications skills in multicultural environments gained during the active participation at national and international conferences, projects and stages.

Organisational/ managerial skills

- Managerial skills gained as project scientific responsible (2 projects)
- Experience as member/ group responsible in the research projects
- Member in the organizing committee for national and international conferences
- Diploma thesis mentoring and Master thesis co-mentoring (5 thesis/year)

Job related skills

- Good experimental skills on the synthesis, characterisation and testing of multifunctional materials for solar energy conversion and for advanced wastewater treatment.
- The ability to work with advanced research equipment, to process and model the data as a result of the experience gathered at the working place or during the training within the country or abroad
- Good skills in modelling of the phase equilibria in complex disperse systems.

Digital competence

- Experienced user of Microsoft Office (Word, Excel, Power point) and other programs (e.g.Origin, Slide WRITE, Corel Draw), Internet, e-learning platforms, specific software for thin films synthesis and characterisation.

Other skills

- Team spirit: constant and active participation in teaching and research group activities
- Ability to adapt to multicultural environments, gained during the external stages/visits in different universities from abroad within Erasmus-Socrates and Leonardo da Vinci programs or other projects; personal trips abroad.

Driving licence

- B category

Supplementary information

Member in scientific organisation

- Romanian Chemistry Society
- EseiA - European Sustainable Energy Innovation Alliance

- Research activity:**
- Books/chapter: 1 book and 10 chapters in books published in national (1), and international (9) publishing houses; Didactical books: 1 course (Chemistry); 2 laboratory volumes (Inorganic Chemistry)
 - Research activity (over 85 papers): 40 ISI papers (10 of them as main author); 8 BDI papers, articles in other journals (10 articles), over 35 presentations (15 oral presentations) within international/national conferences;
 - Research and educational stages in EU universities from: Delft University of Technology, NL (11 months, 2002-2010), University of Nova Gorica, SI (2008, 1 week), Sapienza University, Bologna, IT-2011, 2019 (2 weeks)

- Projects**
- Research and educational projects: *as coordinator/responsible* of 1 internationally and 1 nationally financed project; *team member* in 34 projects, (15 of them were internationally financed); in 7 research projects acting as team responsible for the development of advanced materials' and of the photocatalytic dispersed system

- The visibility of the research activity**
- 507 citations in ISI Thomson, Hirsch index, $h_{ISI} = 11$
 - Reviewer for ISI Journals: Applied Surface Science, Journal of Hazardous Materials, Ceramic International, Powder Technology, Journal of Photoenergy, Materials Chemistry and Physics Fluid Phase Equilibria, Industrial & Engineering Chemistry Research, Journal of Cluster Science, Arabian Journal of Chemistry, IEE Proceedings-OPTIM 2015.

ANEXES

List of the papers and projects

List of the papers and projects

A. Research projects

A.1. International projects

Responsible

1. SFERA-III EU project Solar Facilities for the European Research Area-Third Phase, H2020 GA. No 823802 between CIEMAT Plataforma Solar de Almeria (Spain) and European Union, ZnO-GO composites for the photodegradation of low concentrated organic pollutants in real wastewaters, ZnO-GO SOLCAT
2. INITIATE INITIATE-HORIZON-WIDERA-2023 - ACCESS-03: Supporting European R&I Through stakeholder collaboration and institutional reform, project nr. 101136775. 2024-2027 (contact person UTBV)

Member

1. MultiClass, Multicultural Classrooms: Inclusive Learning and Teaching in Higher Education (Erasmus+ ,programul 2022-1-TR01-KA220-HED-000085687, 2022-2024.
2. EDU4PlastiCircular, Education for Plastic in a Circular and Climate Neutral Economy - Preventing Waste Ending Up into the Environment, 2023-20, 2023-2026.
3. INES, Innovative teaching and learning paths for the prevention of new drugs abuse (Erasmus+ KA220 2021-1-IT02-KA220-SCH-000032570)2021-2024
4. EnvEdu-OERs, Environmental Education – OERs for Rural Citizens (Mecanismul financiar Spatiul Economic European 2014-2021), 2020-2023.
5. BioEnergyTrain - H2020-LCE-2014-2015 2 (GA 656760), 2015 – 2018.
6. Water Safe, Sustainable autonomous system for nitrites/nitrates and heavy metals monitoring of natural water sources, M-ERANET, 9/2016 2016-2019.
7. Magnetic sorting and ultrasound sensor technologies for production of high purity secondary polyolefins from waste, FP7, W2PLASTICS 2008-2009.
8. Curricula Development project DISS, Management of the Chemical Investigations in Environmental Protection, 2003-2004.
9. Curricula Development project CD-MOD, Management and Security Assessment for Sustainable Environment– MOD-MASS, 2005-2007.
10. Project Comenius SEE-EU-Tool, Sustainable Energy for High School Education-An European Training Tool, nr. 226362-CP-1-2005-1-RO-Comenius-C2, 2005 -2008.

A.2. National projects

Responsible or local scientific responsible

1. Advanced Photocatalytic Systems-Photocatalytic inks, POSDRU/159/1.5/S/134378, postdoctoral program, 2013-2015.
2. Innovative sustainable system for photocatalytic self-decontamination of CBRN protection equipment, CB-PhotoDeg 282/2014, 2016-2017.

Member (selection)

1. Nanostructured carbon based materials for advanced industrial application, NANOCARBON+, PN-III-P1-1.2-PCCDI-2017-0619, 2018-2021.
2. Continuous flow laboratory technology based on photocatalysis and adsorption for simultaneous removal of toxic organic pollutants and heavy metals, PhotocatFlow, 124, 2017-2018.
3. Innovative sustainable system for photocatalytic self-decontamination of CBRN protection equipment, CB-PhotoDeg 282/2014, 2014-2015, 2017-2018.
4. Innovative integrate system materials-technology-equipment for wastewater treatment by simultaneous photocatalytic and adsorption processes, SimFotoAd 217/2014, 2014-2018.
5. New zeolite adsorbents based on fly ash collected from the Central Heat Plants from Romania, TE-2012-3-0177, nr.2/22.04.2013, 2013 – 2016.
6. Efficient solar-thermal systems with increased architectural acceptance for implementation in the built environment, PNII 28/2012, EST IN URBA, 2012-2017.
7. Complex high surface area photoactive nano-materials for environmentally-friendly energy production and organic pollutants degradation, PN II 162/2012, NANOVISMAT, 2012-2016.
8. Deposition, characterization, tailoring and optimization of nano and mezo-structured tin oxide (SnO₂) photocatalyst films with controlled morphology, CNCSIS IDEI 753, 2009-2011.
9. Photocatalytic materials for the advanced treatment of wastewaters with complex pollutants load, PNII Cooperation 71047/2007, FOTOCOMPLEX, 2007-2010.
10. Deposition, characterization, tailoring and optimization of nano and mezo-structured tin oxide (SnO₂) photocatalyst films with controlled morphology, CNCSIS IDEI 753, 2009-2011.
11. Modelling ionic conduction in absorber and at the absorber/buffer layer interface to increase the efficiency of the solid state solar cells. CNCSIS IDEI 704/2009, 2009-2011.
12. Multifunctional materials for solar thermal efficient conversion, CEEX 277/2006, MATSOL-T, 2006-2008.
13. Research concerning increasing the solar energy conversion in solar-thermal collectors, CNCSIS A 418/2006, 2006-2008.
14. Integrated monitoring system and environment-health response, CEEX 65/0-3.10/2005, 2005-2007.

B. Teza de doctorat – Thermodynamic characterisation of organic systems at extreme pressure conditions, Supervisor: Prof. Dr. Doc. Rodica VÎLCU, Bucharest University, 19th February 2010.

C. Books/Chapters

1. **Duta A.**, Covei M., Bogatu C., Perniu D., *TiO₂-copper zinc tin sulfide (CZTS) photocatalytic thin films for up-scalable wastewater treatment*, in: Materials Science in Photocatalysis, Elsevier, 2021, 371-383.
2. Perniu D., **Bogatu C.**, Gheorghita S., Covei M., Duta A., *Thin films based on ZnO – Graphene Oxide heterostructures for self-cleaning applications*, in: Solar Energy Conversion in Communities, Springer, 2020, 435-447.
3. Perniu D., Covei M., **Bogatu C.**, Isac L., Visa I., Duta A., *Inorganic, coloured thin films for solar thermal energy converters in sustainable buildings*, in: Energy Efficient Building Design, 2020, 61-73.
4. **Bogatu C.**, *Sisteme disperse. Rolul lor in poluarea si depoluarea mediului (Disperse systems. Their role in the environmental protection)*, Transilvania University of Brasov Publishing House, 2020, ISBN 978-606-19-1246-9 (in romanian).
5. **Bogatu C.**, Covei M., Tismanar I., Perniu D., Duta A., *Composite nanostructures as potential materials for water and air cleaning with enhanced efficiency*, in: Advanced nanostructures for environmental health, Elsevier, 2020, 431-464.
6. Covei M., Perniu D., **Bogatu C.**, Duta A., *ZnO thin films with controlled properties deposited by spray pyrolysis, in ZnO thin films: Properties, Performance and Applications*, Editura Nova, series Materials Science and Technology, Editor Paolo Mele, 2019, ISBN: 978-1-53616-086-4.

7. **Bogatu C**, Perniu D., Isac L., Covei M., Duta A., *Design and Development of TiO₂ based dispersions for photocatalytic fabrics*, in: Proceedings of the Conference on Sustainable Energy 2017 – Nearly Zero Energy Communities (Editors I.Visa, A. Duta), Springer 2017, 521-550;
8. I. Manciulea, L. Dumitrescu, C., **Bogatu, C.** Draghici, D. Lucaci, *Compost Based on Biomass Wastes Used as Biofertilizers or as Sorbent*, in: Proceedings of the Conference on Sustainable Energy 2017 – Nearly Zero Energy Communities (Editor I.Visa, A. Duta), Editura Springer 2017, 566-585.
9. Duta A., Enesca A., Isac L., Perniu D., Andronic L., **Bogatu C.**, *Thin Film Vis-Active Photocatalysts For Up-Scaled Wastewater Treatment* in: Proceedings of the Conference on Sustainable Energy 2014 – Sustainable Energy in the Built Environment-Steps Towards nZEB (Editor I.Visa), Springer 2014, 521-538.
10. Isac L., Panait R., Enesca A., **Bogatu C**, Perniu D., Duta A., *Development of Black and Red Absorber Coatings for Solar Thermal Collectors*, in: Proceedings of the Conference on Sustainable Energy 2017 – Nearly Zero Energy Communities (Editor I.Visa, A. Duta), Springer 2017, 263-283.
11. **Bogatu C.**, Voinea M., Ienei E., Duta A., *Straturi subtiri depuse electrochimic pentru elementele active in conversia solar – termica* in: Electrochimie si coroziune pentru doctoranzii ELCOR (*Thin films electrochemically deposited for active elements in solar-thermal conversion* in: Electrochemistry and corrosion for Ph D students), Vol.4, Politehnica Press 2009, Bucharest, 256-286.

D. Articles published in ISI journals - selection

1. Gheorghita S., **Bogatu C.**, Duta A., TiO₂-g-C₃N₄ thin film photocatalyst on large substrates for advanced wastewater treatment, Journal of Sol-Gel Science and Technology, dec 2023 (DOI10.1007/s10971-023-06263-y), (IF=2.3).
2. Covei M., **Bogatu C.**, Gheorghita S., Duta A., Stroescu H., Nicolescu M., Calderon-Moreno J.M., Atkinson I., Bratan V., Gartner, M., Influence of the deposition parameters on the properties of TiO₂ thin films on spherical substrates, Materials (Basel), 16, 4899, 2023 (IF=3.1)
3. **Bogatu C.**, Covei M., Polo-Lopez I., Duta A., Malato S., Novel ZnO photocatalysts for pollutants' abatement under solar radiation at pilot plant scale, Catalysis Today, 413-415 (2023) 113947 (IF=5,300)
4. Gheorghita S., **Bogatu C.**, Duta A., Self-cleaning surfaces based on TiO₂-g-C₃N₄ composite, CAS 2023 International Semiconductor Conference Proceedings (2023) 29-32,
5. Covei M., Perniu D., **Bogatu C.**, Duta A., Visa I., Photocatalytic composite thin films with controlled optical properties based on TiO₂, WO₃ and rGO, Surfaces and Interfaces 31 (2022) 102075 (FI=6.137)
6. **Bogatu C.**, Gheorghita S., Duta A., Effect of thermal treatment of the photocatalytic TiO₂-g-C₃N₄ composites, CAS 2022 Proceedings (2022) 41-44.
7. **Bogatu C.**, Gheorghita S., Perniu D., Obreja C., Buiu O., A. Duta, *Photocatalytic activity and stability of the ZnO-GO composite thin films*, Proceedings of the International Semiconductor Conference (CAS), 2021, 245-248
8. Tismanar I., **Bogatu C.**, Gheorghita S., Obreja C., Buiu O., Duta A., *Stability of the composite thin films MOx-GO in photocatalytic processes*, Proceedings of the International Semiconductor Conference CAS 2020, Sinaia 2020, article number 9268013, 199-202.
9. Milosan I., Florescu M., Cristea D., Voiculescu I., Pop, M. A., Canadas I., Rodriguez J., **Bogatu C. A.**, Bedo T., *Evaluation of heat-treated AISI 316 stainless steel in solar furnaces to be used as possible implant material*, Materials 13 (3) (2020) article number: 581 (IF= 3.623).
10. **Bogatu C**, Covei M., Tismanar I., Perniu D., Duta A , *Stability of the Cu₂ZnSnS₄/TiO₂ photocatalytic thin films active under visible light irradiation*, Catalysis Today, 328 (2019) 79-84 (IF=4.667).
11. Covei M., Perniu D., **Bogatu C**, Duta A, *CZTS-TiO₂ thin film heterostructures for advanced photocatalytic wastewater treatment*, Catalysis Today, 321-322 (2019) 172-177 (IF=4.667).
12. Covei M., **Bogatu C**, Perniu D., Duta A, Visa I., *Self-cleaning thin films with controlled optical properties based on WO₃-rGO*, Ceramics International 45 (2019) 9157-9163, (IF=3.450).
13. Covei M., **Bogatu C**, Tismanar I, Perniu D., Duta A., *Comparative study on the photodegradation efficiency of organic pollutants using n-p multi-junction thin films*, Catalysis Today, 321-322 (2019) 57-64 (IF=4.888).
14. Pascu A., Stanciu E.M, Croitoru C., Roata I.C., Rosca J. M., Nicanor C., Tiorean M., **Bogatu C.**, *Pulsed laser cladding of niCrBSiC hardcoatings using single-walled carbon nanotube additives*, Journal of Nanomaterials, (2019), Article Number: 2401295, ISSN: 16874110 (IF =1.980).
15. Milosan I., Cristea D., Voiculescu I., Pop M. A., Balat-Michelin M., Predescu A. M., **Bogatu C.**, Bedo T., Berbecaru A. C., Geanta V., Gabor C., Isac L., Sarbu F.A., Oancea G., *Characterisation of EN 1.4136 stainless steel heat-treated in solar furnace*, International Journal of Advanced Manufacturing Technology, 101 (9-12) (2019) 2955-2964 (IF=2.633).
16. Covei M., **Bogatu C.**, Perniu D., S. Cisse, Duta A., *Comparative study of the electrical properties of CZTS-TiO₂ and CZTS-ZnO heterojunctions for PV applications*, Proceedings of the International Semiconductor Conference CAS 2018, Sinaia 2018, Article number 8539820.

17. **Bogatu C.**, Perniu D., Sau C., Iorga C., Cosnita M., Duta A., *Ultrasound assisted sol-gel TiO₂ powders and thin films for photocatalytic removal of toxic pollutants*, Ceramics International, 43 (2017) 7963-7969 (IF=3.057).
18. Manciulea I., **Bogatu C.**, Dumitrescu L., Draghici C., *Cu²⁺ removal from wastewaters by using compost as sorbent*, Environmental Engineering and Management Journal 16 (4) (2017) 779-792, (FI=1.334).
19. Enesca A., Baneto M., Perniu D., Isac L., **Bogatu C.**, Duta A., *Solar-activated tandem thin films based on CuInS₂, TiO₂ and SnO₂ in optimized wastewater treatment processes*, Applied Catalysis B: Environmental 186 (2016) 69–76 (IF=9.446).
20. **Bogatu C.**, Duta A., de Loos T. W., Geana D., *Modelling fluid phase equilibria in the binary system trifluoromethane + 1-phenylpropane*, Fluid Phase Equilibria, 428 (2016) 190-202 (FI=2.473)
21. Duta A., Enesca A., **Bogatu C.**, Gyorgy E., *Solar-active photocatalytic tandems. A compromise in the Photocatalytic processes design*, Materials Science in Semiconductor Processing 42 (2016) 94–97 (FI=2.359).
22. **Bogatu C.**, Perniu D., Duta A., *Challenges in developing photocatalytic inks*, Powder Technology 287 (2016) 82–95 (IF=2.349).
23. Visa M., **C.Bogatu**, A.Duta, *Tungsten oxide – fly ash oxide composites in adsorption and photocatalysis*, Journal of Hazardous Materials, 289, (2015), 244-256 (IF=4.529).
24. Milea C., Ienei E., **Bogatu C.**, Duta A., *Sol-gel Al₂O₃ powders-matrix in solar thermal absorbers*, Journal of Sol-Gel Science and Technology 67 (1) (2013) 112-120 (IF=1.547).
25. **Bogatu C.**, Geana D., Duta A., Poot W., de Loos T. W., *Fluid-Phase Equilibria in the binary system trifluoromethane + 1-phenyltetradecane*, Industrial&Engineering Chemistry Research, 50 (1) (2011) 213-220 (IF=2.237).
26. Voinea M., **Bogatu C.**, Enesca A., Duta A., *The influence of the additives composition and concentration on the properties of SnOx thin films used in photocatalysis*, Materials Letters, 65 (14) (2011) 2185-2189 (IF=2.307).
27. Dudita M., **Bogatu C.**, Enesca A., Duta A., *Thin films of SnO₂ obtained electrochemically from surfactants containing electrolytes*, Revue Roumaine de Chimie 56 (7) (2011) 717-723, (IF =0,418).
28. Manciulea I., **Bogatu C.**, Milea A., *Corrosion inhibition in saline environment using ketonic Mannich Base from Ortho-Hydroxyacetophenone*, Environmental Engineering and Management Journal 10 (9) (2011) 1269-1276 (IF=1.004).
29. **Bogatu C.**, Geană D., Vilcu R., Du ă A., Poot W., de Loos T. W., *Fluid phase equilibria in the binary system trifluoromethane + 1-phenyloctane*, Fluid Phase Equilibria 295 (2010) 186-193 (IF=2.253).
30. Enesca A., **Bogatu C.**, Voinea M., Duta A., *Opto-electronic properties of SnO₂ layers obtained by SPD and ECD techniques*, Thin Solid Films, 519 (2) (2010) 563-567 (IF=1.935).
31. Visa M., **Bogatu C.**, Duta A., *Simultaneous adsorption of dyes and heavy metals from multicomponents solution using fly ash*, Applied Surface Science, 256 (2010) 5486-5491 (IF= 2.103).
32. **Bogatu C.**, Vilcu R., Du ă A., Straver E., de Loos, *Vapour-liquid, liquid-liquid and vapour-liquid-liquid equilibria in the system of trifluoromethane+(2-methylpropyl)benzene*, Revista de Chimie, 61(8) (2010) 767-769, ISSN: 0034-7752 (FI=0,693).
33. **Bogatu C.**, Vilcu R., Geană D., Du ă A., Poot W., de Loos T.W., *high pressure phase behaviour of the system R23 + phenylpropane. experimental results and modelling liquid-vapour equilibrium*, Revue Roumaine de Chimie, 54 (5) (2009), 343-349, (IF=0.263).
34. Manciulea, I., **Bogatu C.**, Comanita, E., Duta A., Dumitrescu, L., *Mannich Basis-Corrosion inhibitors in saline water*, Environmental Engineering and Management Journal, 8 (4), (2009) 877-882, (IF=0.885).
35. **Bogatu C.**, Voinea M., Du ă A., Pelin I. M., Chitanu G.C., *The electrochemical deposition of Cu/CuOx solar selective coatings with controlled morphology*, Revue Roumaine de Chimie, 54 (3) (2009) 235-241, (IF=0,263).
36. Voinea M., Ienei E., **Bogatu C.**, Du ă A., *Solar selective coatings based on nickel oxide obtained via spray pyrolysis deposition*, Journal of Nanoscience&Nanotechnology, 9 (2009) 4279-4284,(IF=1.435).
37. Voinea M., **Bogatu C.**, Chi anu G. C., Dută A., *Copper cermets used as selective coatings for flat plate collectors*, Revista de Chimie 59 (6) (2008) 659 – 663, (IF=0.389).
38. **Bogatu C.**, Manciulea I., Du ă A., *Mechanism of steel corrosion inhibition using Mannich bases*, Proceedings of 2nd International Conference on Multi-Functional Materials and Structures, Location: Qingdao, Peoples R China 2009) Multi-Functional Materials And Structures II, Pts 1 And 2 Book Series: Advanced Materials Research 79-82 (2009) 1963-1966, ISBN:978-0-87849-304-3.
39. Du ă A., **Bogatu C.**, Chi anu G.C., Pelin I. M., *Electrochemical deposition of Ni-based thin film cermets using polymeric additives*, Proceedings of Conference: Symposium on Chemical and Electrochemical Synthesis of Advanced Materials and Nanostructures on Solid Surfaces held E-MRS Fall Meeting, Location: Warsaw, Poland 2007), Physica Status Solidi C, 5 (2008) 3530-3533.

E. Articles published in BDI journals

1. Duta A., Bogatu C., Tismanar I., Perniu D., Covei M., *Vis-active photocatalytic composites for advanced wastewater treatment*, Journal of Engineering Sciences and Innovation 5 (3) (2020) 247-252
2. Tismanar I., Covei M., **Bogatu C.**, Duta A., *The influence of the precursor type and of the substrate on the spd deposited TiO₂ photocatalytic thin films*, Annals of West University of Timisoara Physics, Vol. LX (2018) 75-87.
3. **Bogatu C.**, Cazan C., Manciu I., Duta A., *Corrosion resistance in saline environment of colored based alumina spectrally selective surfaces*, Solid State Phenomena, 227 (2015) 103 -106.
4. Manciu I., **Bogatu C.**, Cazan C., Dumitrescu L., Duta A., *Investigation of some Mannich Bases corrosion inhibitors for carbon steel*, Solid State Phenomena, Solid State Phenomena, 227 (2015) 63-66.
5. Milea C.A, **Bogatu C.**, Duta A., *The influence of parameters in Silica sol-gel Process*, Bulletin of „Transilvania” University of Braşov, Series I: Engineering Sciences, 4(53) (2011), 59-66.
6. Voinea M, Vlăduţă C., **Bogatu C.**, Duta A., *Surface properties of copper cermet based materials*, Materials Science and Engineering B 152, (2008) 76-80.
7. Voinea M., **Bogatu C.**, Duta A., *Environmental impact of copper cermets used as selective coatings for flat plate collectors*, Bulletin of the Transilvania University of Braşov, New Series, SeriesA1, 14 (49) (2007) 211-218.
8. **Bogatu C.**, Vilcu R., Duta A., Straver E., De Loos Th.W, LLV *Equilibria and barotropic inversion phenomena in the systems of CHF₃ + phenylalkane*, Bulletin of the Transilvania University of Braşov, New Series, SeriesA1, 14 (47) (2005) 241-216.

E. Articles published in other journals

1. **Bogatu C.**, Vilcu R., Du ă A., *Experimental Methods for Study High-Pressure Phase Behaviour. Part I. Static Methods*, Annals of Bucharest University, Year XIV (new series), (2005), Vol I şi II, 193-203, ISSN 1220-871X.
2. **Bogatu C.**, Vilcu R., Du ă A., *Experimental Methods for Study High-Pressure Phase Behaviour. Part II. Recirculation Methods*, Annals of Bucharest University Year XV (new series), (2006) Vol. I si II, 100-106, ISSN 1220-871X.
3. **Bogatu C.**, Vilcu R., Du ă A., *Experimental Methods for Study High-Pressure Phase Behaviour. Part III. Continuous Flow Methods*, Annals of Bucharest University, Year XV (new series), (2005), Vol I si II, 106-110, ISSN 1220-871X.
4. **Bogatu C.**, Vilcu R., Du ă A., Geană D., Straver E., de Loos T.W, *Modelling Vapor-Liquid Equilibria in the System CHF₃ + Isobutylbenzene*, Bulletin of „Transilvania” University of Braşov, Series I, 1(50) (2008) 197-203, ISSN 1223-9631.
5. **Iosif C.**, Vilcu R., Poot W., de Loos T.W, *High pressure phase behaviour in the systems of refrigerant, R23 and alkylbenzene oils*, Bulletin of “Transilvania” University, Series B, 10 (45) (2003) 131-137, ISSN 1223-964X.
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F. Papers presented within the International Conferences (selection)

1. **Bogatu C.**, Gheorghita S., Perniu D., Obreja C., Buiu O., A. Duta, *Photocatalytic activity and stability of the ZnO-GO composite thin films*, Proceedings of the International Semiconductor Conference (CAS), 2021, 245-248 – oral presentation
2. **Bogatu C.**, Gheorghita S., Obreja C., Buiu O., A. Duta, *ZnO-(r)GO composite thin films for photocatalytic applications*, International Conference, Adv PhotoCat EE-2021, July 2021 – oral presentation
3. **Bogatu C.**, Gheorghita S., Perniu D., Obreja C., Buiu O., A. Duta A, *Photocatalytic activity and stability of the ZnO-GO composite thin films*, International Semiconductor Conference CAS 2021, Sinaia 2021- poster presentation

4. **Bogatu C.**, Perniu D., Silvia Gheorghita, Covei M., Obreja C., Buiu O., Duta A., *Zinc oxide-grafene oxide composite thin films for photocatalytic applications*, International Conference on Environmental Engineering and Management -ICEEM08, September 2019- oral presentation
5. **Bogatu C.**, Perniu D., Covei M., Isac L., Duta A., *Design and development of TiO₂ based dispersions for phytocatalytic fabrics* Conference for Sustainable Energy (CSE) 2017, Brasov 2017 - oral presentation
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7. **Bogatu C.**, Perniu D., Isac L., Covei M., Duta A., *Photocatalytic Dispersions based on TiO₂-CuxS-Ag for self-decontamination fabrics*, E-MRS 2017, Spring Meeting, 23-26 May 2017, Strassbourg, Franta - poster presentation.
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12. **Bogatu C.**, Geana D., Poot W., De Loos T.W., *Fluid phase behavior of trifluoromethane + phenylalkanes*, 25th European Symposium on Applied Thermodynamic, ESAT 2011, June 24-27, 2011, Saint Petersburg, Russia - oral presentation
13. **Bogatu C.**, Vilcu R., Du ă A., Poot W., Straver E., de Loos T.W., *Fluid phase equilibria in the system consisting of R23 and Phenyloctane*, The 16th Romanian International Conference on Chemistry and Chemical Engineering, RICCE XVI, September 9-12, 2009, Sinaia, Romania. – oral presentation
14. **Bogatu C.**, Vilcu R., Geană D., Du ă A., Straver E., de Loos T. W., *R23-phenylalkanes system. Calculations and environmental impact*, International Conference on Materials Science and Engineering, BRAMAT, February 22-24, 2009, Brasov, Romania - poster presentation
15. Voinea M., **Bogatu C.**, Du ă A., *Accelerated life testing of two black solar absorber coatings absorbers obtained via electrodeposition*, Romanian Conference on Advanced Materials, ROCAM, August 25-28, 2009, Brasov, Romania-poster presentation
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E. Patents

1. Perniu D, **Bogatu C.** Duta A., Isac L., Covei M., Vișa I., Neagoe M., *Photocatalytic dispersion active in the visible range of luminous radiation and method for preparing the same*, RO132549 (AO), 2018.

2. Duta A., **Bogatu C.**, Perniu D., Covei M., Gheorghita S., *Composite thin films based on zinc oxide and graphene oxide with self cleaning properties and the preparation method*, RO 135217 (A0), 2021 (pending patent)
3. Covei M., Visa I., Duta A., Perniu D., Bogatu C., Composite thin films with simultaneous self-cleaning and anti-reflection properties for glazed surfaces, the preparation method and their application, RO134899 (A0), 2021 (pending patent)

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