



Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) Anca DUTA CAPRA
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E-mail a.duta@unitbv.ro
Nationality Romanian
Date of birth [REDACTED]
Gender Female

Work experience

Dates (From- To) **09/1990 – to date**

Occupation or position held

Didactic positions:

2004- to date Ph.D supervisor, Materials Science, 15 finalized Ph.D. programs, 2 running programs
2002 – to date Professor
1998 – 2002 Associate Professor
1994 – 1998 Lecturer
1990 – 1994 Assistant Professor

Management positions – university level

2002 – 2012, Head of the Department for Research and Education Projects in the University
2012 – 2016 Scientific Manager of the R&D Institute of the Transilvania University of Brasov
2004 – 2011, Head of the Chemistry and Environment Department
2005 – 2020, *Head of the Advanced Materials Laboratory, in the RTD Centre Renewable Energy Systems and Recycling*
2020 – to date *Head of the RTD Centre Renewable Energy Systems and Recycling (RESREC)*
2007 – to date: coordinator of the study programs: *Environmental Engineering and Protection in Industry (B.Sc.) and Wastes Recycling Engineering (B.Sc.)*

Main activities
and responsibilities

Management positions – national level

2006 – 2012 Member of national RTD Consultancy Committee; Commission 4 - New Materials, Micro- and Nanotechnologies
2007 – to date Member of the evaluators group for Quality Assurance in Higher Education (ARACIS)
2008 – 2011 Member of the National Council for Research in Higher Education, CNCSIS
2016 – to date Member of CNADTCU, Materials Engineering Commission

Management positions – international level

EC-DG Research (2010 – up to date): External expert, Project Technical Advisor, PTA for FP7/Cooperation/NMP projects (Breakingresearch A.G.)
EC-DG Research (2015 – up to date): external expert, evaluator of H2020 and Horizon Europe project proposals
EC: member of the team working on the SET Energy Plan (2012)
European Sustainable Energy Innovation Alliance, ESEIA, Co-Chairman of the Working group 2: Smart Cities and Regions (2013-2014)

Evaluator of project proposals: Horizon Europe, : H2020, FP7, Comenius, Leonardo da Vinci (2006-2007), CEEPUS (2005- 2011), Bilateral Agreements, Projects of the National Research Foundation on Portugal (2012), Projects of the Graz University (Austria, 2012), PNII, PNIII

Specific project experience includes:

Main activities and responsibilities	<p>1. European Research grants and projects:</p> <p>2016-2018 M-ERANET, WATER SAFE (monitoring system for nitrates/nitrites and heavy metals from natural waters), ctr. No 39/2016, Grant Director</p> <p>2015 – 2018, H2020, <i>Bioenergy Train</i>, GA 656760 — BioEnergyTrain — H2020-LCE-2014-2015/H2020-LCE-2014-2 (CO: ESEIA)</p> <p>2014 – 2016, INCO EC-FP7, <i>Ener2i</i>, coordinator ESEIA, team leader</p> <p>2005 – 2006 - <i>TNW AC/PPZ2005</i>, “Development of a new technology for industrial production of absorber thin films for Solar Cells”, Bilateral agreement with Technical University of Delft, The Netherlands.</p> <p>2003 – 2005 - <i>TNW 03.466</i>, <i>Research Agreement, TU DELFT: “Spray Deposition of Photoactive Materials”</i>, Bilateral agreement with Technical University of Delft, The Netherlands.</p> <p>2002 – 2004 - <i>DCT AC/TTF2002</i>, <i>Research Agreement, TU Delft, “Nanostructured layers of semiconductor oxides”</i>, Bilateral agreement with Technical University of Delft, The Netherlands.</p> <p>2. Structural Funds Projects (selection)</p> <p>2009 – 2012 - <i>RTD Institute High Tech Products for Sustainable Development</i>, (20 M EUR), Project Administrative and Financial Manager</p> <p>2008 – 2011, 2009 – 20012, 2010 – 2013 - <i>Doctoral School for Sustainable Development, POSDRU</i>, Member of the Implementation team</p> <p>3. Nationally Funded Research Grants (selection)</p> <p>2022 – 2024 - <i>PED, PNIII, Continuous flow demonstrator and technology with VIS / solar active photocatalyst on spherical substrates for advanced wastewater treatment</i>, 598795 Lei (team member)</p> <p>2016-2018 – <i>PED, PNIII, Continuous flow demonstrator and technology with thin film photocatalysis and adsorption photo-reactor for advanced wastewater treatment</i>, Grant Director, 600 000 Lei</p> <p>2012 – 2015 - <i>Romanian National Research Agency, Programme PNII Cooperation, NANOVISMAT, Scientific Responsible (250.000 EUR)</i></p> <p>2007-2010 - <i>Romanian National Research Agency, Programme PNII Cooperation, 2007 – 2010, FOTOCOMPLEX – Photocatalytic Technologies for Wastewater treatment”</i>, Project Coordinator (700 000 EUR)</p> <p>2006 – 2009 - <i>Romanian Research Council, Programme CNCSIS Platforms, No. 79/2006, “Product Design for Sustainable Development”</i>, Scientific Director, (1 890 000 EUR)</p> <p>2006-2009 - <i>Romanian National Research Agency, Programme CEEX, Module 1, 277/2006, “Multifunctional materials for increasing the solar to thermal energy conversion”</i>, Grant Director, (450 000 EUR)</p> <p>2006-2009 - <i>Romanian Research Council, Programme: CNCSIS, No. A400, “Increasing the conversion efficiency of solid state solar cells”</i>, Grant Director, (85 000 EUR)</p> <p>2002-2004 - <i>Romanian Research Council, Programme: CNCSIS, No. A665, “Optimizing the CVD deposition process of nanofunctional materials based on TiO2 used for solar cells”</i>, Grant Director, (10 000 EUR)</p>
Name and address of employer	Transilvania University of Brasov , Eroilor 29, 500036 Brasov, Romania
Type of business or sector	Research and Education
Dates (From- To)	01/1989 – 09/1990
Occupation or position held	Researcher
Main activities and responsibilities	Development of polymeric auxiliaries for the textile industry at laboratory, pilot and industrial scale

Name and address of employer **National Institute for Chemical Research ICECHIM, Division: Organic Auxiliaries, ICPAO Medias, Branch Rasnov**
 Type of business or sector Research

Dates (From- To) **09/1985 – 12/1988**
 Occupation or position held Team manager
 Main activities and responsibilities

- Coordinating the production team for adhesives and binders
- Launching, at industrial scale, new products (BUTIRAL B-150); testing new products for industrial processes

 Name of employer **Chemical Enterprise Rasnov**
 Type of business or sector Industry

Education and training
 (highest level attained)

Dates 1990 - 1996
 Title of qualification awarded Ph. D. in Chemical Engineering
 Principal subjects/occupational skills covered Physical Chemistry. Thesis: *PVT Properties and vapour-liquid equilibria in n-alkanes systems*; Ph.D. coordinator: Prof. dr. eng. Dan Geana
 Name and type of organisation providing education and training Politehnica University of Bucharest, Romania
 Level in national or international classification Doctoral level in Chemical Engineering - Physical Chemistry
 Short term courses 1992 Rietveld Diffraction, Csiezyn Polonia
 1999 - 2004 Technical University of Delft: short term stages (a total of 13 month) on Solar energy materials
 2000 University of Essex UK (3 weeks): Waste recycling and management
 2006 UE Structural Funds, Paris (France), intensive course (1 week)
 2011 EU financing opportunities for Energy projects, intensive course (1 week)

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment	Understanding		Speaking		Writing
<i>European Level</i>	English	C2	English	C2	C1
	German	C1	German	C1	B2

(*) *Common European Framework of Reference for Languages*

Social skills and competences Team builder, good communication skills, working in inter- and trans-disciplinary teams.
 Organisational skills and competences Management experience in R&D (advanced materials and sustainable development topics)
 Technical skills and competences Experimental & Theoretical skills:

- modelling, synthesis and characterisation of advanced materials – thin films and powders with controlled properties;
- over 120 papers published in ISI journals (*h_{wos}* = 30; *h_{cs}* = 37);
- reviewer for over 20 ISI journals;
- member of the Editorial Board of the Scientific World Journal - Energy; Environmental Engineering and Management Journal (IF = 1,334) and of the Environmental Engineering and Management Journal (IF = 0.832)
- Technical expert in the European Sustainable Energy Alliance, ESEIA
- Founding member of the NanoFuture-Romania Network

Member of scientific associations American Chemical Society (ACS)
International Adsorption Society (IAS)
International Solar Energy Society (ISES)
Romanian Chemistry Society (SRC), president of the Brasov branch

Additional information SEE ANNEX: Research results - publications and patents

13.02.2023

Prof. dr. eng. Anca Duta



1. LIST OF PUBLICATIONS (selection)**Books:**

1. Visa I., Duta A. (Eds.), *Solar Energy Conversion in Communities*, Springer Proceedings in Energy, **2020**
2. Visa I., Duta A. (Eds.), *Nearly zero energy communities*, Springer Proceedings in Energy, **2017**
3. Moldovan M., Visa I., Duta A., *Future trends in solar energy use in nearly zero energy buildings*, Chapter 20 in *Advances in solar heating and cooling*, Elsevier, **2016**, pp. 547-569
4. Visa I., Duta A., Neagoe M., *Dezvoltarea de resurse umane pentru comunitati durabile in centrul RESREC*, in *Platforme de Mecatronica* (Ed. V. Maties), UT Press, **2016**, p. 286 – 205
5. Visa I., Jaliu C., Duta A., Neagoe M., Comsit M., Moldovan M., Ciobanu D., Burduhos B., Saulescu R., *The Role of Mechanisms in Sustainable Energy Systems*, Ed. Universitatii Transilvania din Brasov, **2015**, ISBN 978-606-19-0571-3
6. A. Datcu, A. Perez del Pino, C. Logofatu, A. Duta, E. Gyorgy, *Wetting and Photoactive Properties of Laser Irradiated Zinc oxide – Graphene Nanocomposite Layers*, Chapter 13 in P. Petkov et al., (Eds.), *Nanoscience Advances in CBRN Agents Detection, Information and Security*, NATO Science for Peace and Security, Series A: Chemistry and Biology, Springer Science + Business Media, Dordrecht, **2015**, pp. 119-125
7. Duta A., Andronic L., Perniu D., Manceriu L., Enesca A., *Handbook of Nanofunctional Materials*, Vol. I *Synthesis and Modification* (Ed. M. Aliofkhazraei), Cap. 9. *Crystalline wide band gap semiconductors*, Nova Science Publishers Inc. **2014**, p. 157 - 176
8. Visa I., Duta A., *The Built Environment In Sustainable Communities*, in *Sustainable Energy in the Built Environment – Steps Towards nZEB*, Springer Proceedings in Energy, **2014**, p. 3-30
9. Ciobanu D., Visa I., Enescu M., Duta A., *Outdoor and Indoor Testing to Increase the Efficiency and Durability of Flat Plate Solar Thermal Collectors*, *Sustainable Energy in the Built Environment - Steps Towards nZEB*, Springer Proceedings in Energy, **2014**, p. 205-219
10. Isac L., Enesca A., Mihoreanu C., Perniu D., Duta A., *Spectrally Solar Selective Coatings for Colored Flat Plate Solar Thermal Collectors*, *Sustainable Energy in the Built Environment - Steps Towards nZEB*, Springer Proceedings in Energy, **2014**, p. 279-298
11. Cazan C., Cosnita M., Visa M., Duta A., *Novel Rubber-Plastics Composites Fully Based on recycled Materials*, *Sustainable Energy in the Built Environment - Steps Towards nZEB*, Springer Proceedings in Energy, **2014**, p. 503-520
12. Duta A., Enesca A., Isac L., Perniu D., Andronic L., Bogatu C., *Thin Film Vis-Active Photocatalysts for Up-scaled Wastewater Treatment*, *Sustainable Energy in the Built Environment - Steps Towards nZEB*, Springer Proceedings in Energy, **2014**, p. 521-539

13. Cazan C, Duta A., *Rubber/Thermoplastic Blends: Micro and Nano Structured*, Advances in Elastomers I, Ed. Springer, series Advanced Structured Materials Volume 11, **2013**, p. 183-228
14. Cazan C., Duta A., *Rubber: Type, Properties and Use*, Ed. Popa, A.G., Ed. Nova Science Publishers, Inc., **2011**
15. Visa I., Jaliu C., Duta A., (editori), *Conference for Sustainable Energy*, Environmental Engineering and Management Journal, Ed. Omicron, **2011**.
16. Duta A., Perniu D., Isac L., Enesca A., *Solar Energy Materials Obtained by Spray Pyrolysis Deposition*, **2010**, chapter in e-book, <http://ebookbrowse.net/anca-duta-pdf-d130944768>
17. Anicai, L., Iulian O., Duta, A., s.a., *Electrochimie si Corozione pentru Doctoranzi*, Ed. Politehnica Press, **2008**
18. Vișa I., Duță A., *Sustainable Energy*, Ed. Univ. Transilvania, **2008**
19. Vișa I., Duță A., *Renewable Energy Systems, Applications*, Ed. Univ. Transilvania, **2006**
20. Visa I., Duta A., *Renewable Energy Systems, Basics*, Ed. Univ. Transilvania, **2005**, ISBN 973-635-541-1
21. J.vanPaemel, L. Bergmans, L. Moens, A. Duta, *Computer Use In Experimental Chemistry*, Ed. Univ. Transilvania Brasov, 60 p., **2002**
22. R. Tica, A. Duta, D. Perniu, L. Isac, *Chimie Generala*, Ed. Universității Transilvania, 190 p., **2002**
23. S. Kaplanis, I. Visa, A. Duta, 2002, *Sustainable Development, Renewable Energy Sources and Environment*, Ed. Univ. Transilvania Brasov, **2002**
24. A.Duta, *Poluarea, Monitorizarea si Tratarea Apelor (Water pollution monitoring and treatment)*, Ed. Univ. Transilvania, 240 p., **2001**
25. A.Duta, R. Tica, *Chimia Materialelor Industriale (Chemistry of industrial materials)*, Ed. Gryphon, Brasov, 198 p., **1999**

Papers published in ISI Journals, Web of Science ($h = 30$)

1. Bogatu C., Covei M., Polo-Lopez M.I., Duta A., Malato S., *Novel ZnO photocatalysts for pollutants' abatement under solar radiation at pilot plant scale*, CATALYSIS TODAY, accepted for publication, **2023**
2. 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, article number: 102075, **2022**
3. Tismanar I., Obreja A.C., Buiu O., Duta A., *VIS-active TiO₂ – graphene oxide composite thin films for photocatalytic applications*, APPLIED SURFACE SCIENCE, 538, 147833, **2021**
4. Covei M., Perniu D., Bogatu C., Duta A., *CZTS-TiO₂ thin film heterostructures for advanced photocatalytic wastewater treatment*, CATALYSIS TODAY, 321, p. 172-177, **2019**
5. Burduhos B., Visa I., Duta A., Neagoe M., *Analysis of the Conversion Efficiency of Five Types of Photovoltaic Modules During High Relative Humidity Time Periods*, IEEE JOURNAL OF PHOTOVOLTAICS, 8, 6, p. 1716-1724, **2018**
6. Duta A., Andronic L., Enesca A., *The influence of low irradiance and electrolytes on the mineralization efficiency of organic pollutants using the Vis-active photocatalytic tandem CuInS₂/TiO₂/SnO₂*, CATALYSIS TODAY, 300, p. 18-27, **2018**

7. Ilie A.C., Visa I., Duta A., *Solar-Thermal Systems for Domestic Hot Water Production Implemented in Collective Households*, JOURNAL OF ENERGY ENGINEERING, 143, 6, article number: 04017065, **2017**
8. Cosnita M., Cazan C., Duta A., *The influence of inorganic additive on the water stability and mechanical properties of recycled rubber, polyethylene terephthalate, high density polyethylene and wood composites*, JOURNAL OF CLEANER PRODUCTION, 165, p. 630-636, **2017**
9. Mihoreanu C., Banciu A., Enesca A., Duta A., *Silica-Based Thin Films for Self-Cleaning Applications in Solar Energy Converters*, JOURNAL OF ENERGY ENGINEERING, 143, 5, article number: 04017029, **2017**
10. Moldovan M., Visa I., Duta A., *Enhanced Sustainable Cooling for Low Energy Office Buildings in Continental Temperate Climate*, JOURNAL OF ENERGY ENGINEERING, 143, 5, article number: 04017054, **2017**
11. Bogatu C., Perniu D., Sau C., Iorga O., Cosnita M., Duta A., *Ultrasound assisted sol-gel TiO₂ powders and thin films for photocatalytic removal of toxic pollutants*, CERAMICS INTERNATIONAL, 43, 11, p. 7963-7969, **2017**
12. Enesca A., Yamaguchi Y., Terashima C., Fujishima A., Nakata K., Duta A., *Enhanced UV-Vis photocatalytic performance of the CuInS₂/TiO₂/SnO₂ hetero-structure for air decontamination*, JOURNAL OF CATALYSIS, 350, p. 174-181, **2017**
13. Isac L., Nicoara L., Panait R., Enesca A., Perniu D., Duta A., *Alumina matrix with controlled morphology for colored spectrally selective coatings*, Environmental Engineering and Management Journal, 16, 715-724, **2017**
14. Cosnita M., Cazan C., Duta A., *Effect of waste polyethylene terephthalate content on the durability and mechanical properties of composites with tire rubber matrix*, JOURNAL OF COMPOSITE MATERIALS, 51, 3, p. 357-372, **2017**
15. Cazan C., Cosnita M., Duta A., *Effect of PET functionalization in composites of rubber-PET-HDPE type*, Arabian Journal of Chemistry, 10, 3, p. 300-312, **2017**
16. Andronic L., Isac L., Miralles-Cuevas S., Visa M., Oller I., Duta A., Malato S., *Pilot-plant evaluation of TiO₂ and TiO₂-based hybrid photocatalysts for solar treatment of polluted water*, Journal of Hazardous Materials, 320, 15 December **2016**, p. 469-478 (IF = 4.836)
17. Visa I., Burduhos B., Neagoe M., Moldovan M., Duta A., *Comparative analysis of the infield response of five types of photovoltaic modules*, Renewable Energy, 95, **2016**, p. 178-190 (IF = 3.404)
18. Bogatu C., Duța A., de Loos T. W., Geană D., *Modelling fluid phase equilibria in the binary system trifluoromethane + 1-phenylpropane*, Fluid Phase Equilibria, 428, **2016**, p. 190-202 (IF = 1.846)
19. A. Enesca, M. Baneto, D. Perniu, L. Isac, C Bogatu, A. Duta, , Applied Catalysis B: Environmental, 186, *Solar-activated tandem thin films based on CuInS₂, TiO₂ and SnO₂ in optimized wastewater treatment processes* **2016**, p. 69-76 (IF = 8.328)
20. S. Kermadi, S. Sali, F. Ait Ameer, L. Zougar, M. Boumaour, A. Toumiat, N.N. Melnik, D.W. Hewak, Anca Duta, *Effect of copper content and sulfurization process on optical, structural and electrical properties of ultrasonic spray pyrolysed Cu₂ZnSnS₄ thin films*, Materials Chemistry and Physics, 169, **2016**, p. 96-104 (IF = 2.101)
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**, p. 94 – 98 (IF =1.955)
22. Bogatu C., Perniu D., Duta A., *Challenges in developing photocatalytic inks*, Powder Technology, 287, **2016**, p. 82-95 (IF = 2.349)
23. Cazan C., Cosnita M., Duta A., *Effect of PET functionalization in composites of rubber-PET-HDPE type*, Arabian Journal of Chemistry, Available online 20 October **2015**, ISSN 1878-5352 (IF = 3.725)
24. I. Visa, A. Duta, M. Comsit, M. Moldovan, D. Ciobanu, R. Saulescu, B. Burduhos, *Design and experimental optimisation of a novel flat plate solar thermal collector with trapezoidal shape for facades integration*, Applied Thermal Engineering, 90, **2015**, p. 432-443 (IF = 2.739)

25. Y. Mouchaal, A. Enesca,, C. Mihoreanu, A. Khelil, A. Duta, *Tuning the opto-electrical properties of SnO₂ thin films by Ag+I and In+3 co-doping*, Materials Science and Engineering B., 199, **2015**, p. 22–29 (IF = 2.169)
26. M. Visa, C. Bogatu, A. Duta, *Tungsten oxide – fly ash oxide composites in adsorption and photocatalysis*, Journal of Hazardous Materials 289, **2015**, p.244–256 (IF = 4.529)
27. A. Duta, M. Visa, *Simultaneous removal of two industrial dyes by adsorption and photocatalysis on a fly-ash–TiO₂ composite*, Journal of Photochemistry and Photobiology, A, 306, **2015**, p. 21-30 (IF = 2.459)
28. M. Visa, L. Isac, A. Duta, *New fly ash TiO₂composite for the sustainable treatment of wastewater with complex pollutants load*, Applied Surface Science 339, **2015**, 62–68 (IF = 2.711)
29. A. Datcu, L. Duta, A. P'erez del Pino, C. Logofatu, C. Luculescu,, A. Duta, D. Perniu, E. Gy'orgy, *One-step preparation of nitrogen doped titanium oxide/Au/reduced graphene oxide composite thin films for photocatalytic applications*, RSC Advances, **2015**, 5, 49771 – 49779 (IF = 3.840)
30. Visa M, Andronic L, Duta A, *Fly ash-TiO₂ nanocomposite material for multi-pollutants wastewater treatment*, Journal of Environmental Management, 150, **2015**, p. 336-343 (IF = 3.188)
31. Mancieru LM, Rougier A, Duta A, *Comparative investigation of the Ti and Mo additives influence on the opto-electronic properties of the spray deposited WO₃ thin films*, Journal of Alloys and Compounds, 630, **2015**, p. 133-145 (IF = 2.726)
32. Baneto M, Enesca A, Mihoreanu C, Lare Y, Jondo K, Napo K, Duta A, *Effects of the growth temperature on the properties of spray deposited CuInS₂ thin films for photovoltaic applications*, Ceramics International, 41, 3, B, **2015**, p. 4742-4749 (IF = 2.086)
33. Enesca A, Isac L, Duta A, *Charge carriers injection in tandem semiconductors for dyes mineralization*, Applied Catalysis B: Environmental, 162, **2015**, p. 352-363 (IF = 8.328)
34. György E., Del Pino A.P., Logofatu C., Cazan C, Duta A., *Simultaneous Laser-Induced Reduction And Nitrogen Doping Of Graphene Oxide In Titanium Oxide/Graphene Oxide Composites*, Journal Of The American Ceramic Society, 05, **2014**; Doi:10.1111/Jace.13013
35. Duta M., Perniu D., Duta A., *Photocatalytic zinc oxide thin films obtained by surfactant assisted spray pyrolysis deposition*, Applied Surface Science, 306, 1 **2014**, p. 80-88
36. Baneto M., Enesca A., Lare Y., Jondo K., Napo K., Duta A., *Effect of precursor concentration on structural, morphological and opto-electric properties of ZnO thin films prepared by spray pyrolysis*, Ceramics International, 40, 2014, p. 8397-8404
37. L. Duta, C. Popescu, A. Popescu, M. Motoc, C. Logofatu, A. Duta, E. Gyorgy, *Nitrogen-doped and gold-loaded TiO₂ photocatalysts synthesized by sequential reactive pulsed laser deposition*, Applied Physics A (Impact Factor: 1.55). 01, **2014**; DOI:10.1007/s00339-013-8220-3
38. Cosnita M., Cazan C., Duta A., *Interfaces and mechanical properties of recycled rubber–polyethylene terephthalate–wood composites*, Journal of Composite Materials, 48, **2014**, p. 683-694
39. Enesca A., Isac L., Andronic L., Perniu D., Duta A., *Tuning SnO₂–TiO₂ tandem systems for dyes mineralization*, Applied Catalysis B: Environmental, 147, **2014**, p. 175–184
40. Visa I., Moldovan M.D., Comsit M., Duta A., *Improving the renewable energy mix in a building toward the nearly zero energy status*, Energy and Buildings, 68, **2014**, p. 72–78
41. Dudita, M., Mancieru, L. M., Anastasescu, M., Nicolescu, M., Gartner, M., Duta A., *Coloured TiO₂ based glazing obtained by spray pyrolysis for solar thermal applications*, Ceramics International, 40, **2014**, p. 3903–3911
42. Sica M., Duta A., Teodosiu C., Draghici C., *Thermodynamic and kinetic study of ammonium removal from a synthetic water solution using ion exchange resin*, Clean Technologies and Environmental Policies, 16, **2014**, p. 351-359
43. Bertus, L.M., Faure, C., Danine, A., Labrugere, C., Campet, G., Rougier, A., Duta, A. *Synthesis and characterization of WO₃ thin films by surfactant assisted spray pyrolysis for electrochromic applications*, Materials Chemistry and Physics, **2013**, p. 49-59

44. M. Visa, A. Duta, *TiO₂/fly ash novel substrate for simultaneous removal of heavy metals and surfactants*, Chemical Engineering Journal, 223, **2013**, p. 860-868
45. Isac, L., Andronic, L., Enesca, A., Duta, A., *Copper sulfide films obtained by spray pyrolysis for dyes photodegradation under visible light irradiation*, Journal of Photochemistry and Photobiology A: Chemistry 252, **2013**, p. 53– 59
46. Visa, M., Duta, A., *Methyl-orange and cadmium simultaneous removal using fly ash and photo-Fenton systems*, Journal of Hazardous Materials, 244– 245, **2013**, p. 773– 779
47. Cosnita, M., Cazan, C., Duta, A., *Interfaces and mechanical properties of recycled rubber–polyethyleneterephthalate–wood composites*, Journal of Composite Materials, **2013**, DOI: 10.1177/0021998313476561
48. Andronic, L., Duta, A., *Photodegradation processes in two-dyes systems – Simultaneous analysis by first-order spectra derivative method*, Chemical Engineering Journal, 198–199, **2012**, p. 468-475
49. Carcel, R.A., Andronic, L., Duta, A., *Photocatalytic activity and stability of TiO₂ and WO₃ thin films*, Materials Characterization, 70, **2012**, p. 68-73
50. Visa, M., Isac L., Duta, A., *Fly ash adsorbents for multi-cation wastewater treatment*, Applied Surface Science, 258 (17), **2012**, p. 6345-6352
51. Bertus L. M.; Duta A., *Synthesis of WO₃ thin films by surfactant mediated spray pyrolysis*, Ceramics International, 38(4), **2012**, p. 2873-2882
52. Bertus L. M.; Enesca A.; Duta A., *Influence of spray pyrolysis deposition parameters on the optoelectronic properties of WO₃ thin films*, Thin Solid Films, 520(13), **2012**, p. 4282-4290
53. Enesca A., Andronic L., Duta A., *The influence of surfactants on the crystalline structure, electrical and photocatalytic properties of hybrid multi-structured (SnO₂, TiO₂ and WO₃) thin films*, Applied Surface Science, 258(10), **2012**, p. 4339-4346
54. Enesca A., Andronic L., Duta A. *Optimization of Opto-Electrical and Photocatalytic Properties of SnO₂ Thin Films Using Zn²⁺ and W⁶⁺ Dopant Ions*, Catalysis Letters, 142(2), **2012**, p.224-230
55. Andronic, L., Duta, A., *The influence of precursor's composition and concentration on cadmium doped TiO₂ film*, Central European Journal of Chemistry, 10, **2011**, p. 85-90
56. Visa M., Pricop F., Duta A., *Sustainable treatment of wastewaters resulted in the textile dyeing industry*, Clean Technologies and Environmental Policy, 13, **2011**, p. 855-861
57. Isac, L., Popovici, I., Enesca, A., Duta, A., *Copper Sulfides Thin Films With Controlled Properties For Photovoltaic Cells*, Environmental Engineering And Management Journal, 10, **2011**, p. 1235-1241
58. Lucaci, D., Duta, A., *Removal Of Methyl Orange And Methylene Blue Dyes From Wastewater Using Sawdust And Sawdust-Fly Ash As Sorbents*, Environmental Engineering and Management Journal, 10, **2011**, p. 1255-1262
59. Motoc, A.M., Piticescu R. R.; Carcel R. A., Duta, A., *Hydrothermal Synthesized Tio(2) Based Nanopowders For Photocatalytic Applications*, Environmental Engineering and Management Journal, 10, **2011**, p. 1299-1303
60. Dudita, 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**, p. 2185-2189
61. Enesca, A., Duta, A., *The influence of organic additives on the morphologic and crystalline properties of SnO₂ obtained by spray pyrolysis deposition*, Thin Solid Films , 519 (17), **2011**, p. 5780-5786
62. Andronic, L., Isac, L., Duta, A., *Photochemical synthesis of copper sulphide/titanium oxide photocatalyst*, Journal of Photochemistry and Photobiology A: Chemistry, 221 (1), **2011**, p. 30-37
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