

FORMAT
EUROPEAN
CURRICULUM VITAE



INFORMATII PERSONALE

Nume DUȚĂ CAPRĂ Anca
Adresa Eroilor 29, 500036 Brasov
E-mail a.duta@unitbv.ro
Nationalitate Română
Data nasterii 8 Decembrie 1961

EXPERIENTA PROFESIONALĂ

- Perioada 09/1990-prezent
• Numele si adresa angajatorului *Universitatea Transilvania din Brașov*
• Tipul activitatii sau Sector de activitate *Educatie si cercetare*
• Functia sau postul ocupat *Asistent (1990), Sef lucrari (1994), Conferentiar (1998)
Profesor universitar (2002), Profesor conducator de doctorat (2004)*
- Perioada 11/2004 – 2012
• Numele si adresa angajatorului *Universitatea Transilvania din Brașov*
• Tipul activitatii sau Sector de activitate *Educatie si cercetare*
• Functia sau postul ocupat *Director, Departament de Management al Proiectelor de Educatie si de Cercetare Stiintifica, DEMPEC*
• Principalele activitati si responsabilitati *Informare, training, monitorizare, consultanta pentru proiecte, granturi, contracte*
- Perioada 11/2004 – 09/2011
• Numele si adresa angajatorului *Universitatea Transilvania din Brașov*
• Tipul activitatii sau Sector de activitate *Educatie si cercetare*
• Functia sau postul ocupat *Sef Catedra Chimie si Mediu*
• Principalele activitati si responsabilitati *Coordonarea activităților catedrei,
Managementul activitatilor de cercetare si educatie din catedra*
- Perioada 02/2000 -02/2004
• Numele si adresa angajatorului *Universitatea Transilvania din Brașov*
• Tipul activitatii sau Sector de activitate *Educatie si cercetare*
• Functia sau postul ocupat *Secretar Științific al Facultății de Știința și Ingineria Materialelor*
• Principalele activitati si responsabilitati *Evidența activităților desfășurate în facultate, promovarea cercetării științifice*
- Perioada 1989 - 1990
• Numele si adresa angajatorului *Institutul Central de Chimie – ICECHIM - Institutul de Cercetări pentru Auxiliari Organici (ICPAO)*
• Tipul activitatii sau Sector de activitate *Cercetare stiintifica*
• Functia sau postul ocupat *Cercetator stiintific*
• Principalele activitati si responsabilitati *Cercetare științifică în domeniul polimerilor hidrosolubili*

- Perioada
- Numele si adresa angajatorului
- Tipul activitatii sau Sector de activitate
- Functia sau postul ocupat
- Principalele activitati si responsabilitati

1985 – 1989

Întreprinderea Chimică Râșnov

Inginer (tehnolog)

Productie adezivi

EDUCATIE

- Perioada
- Numele si tipul institutiei de invatamant si al organizatiei profesionale prin care s-a realizat for ea profesionala
- Domeniul studiat/aptitudini ocupationale
- Tipul calificarii/Diploma obtinuta
- Nivelul de clasificare a formei de instruire/invatamant

Septembrie 1980 – Iulie 1985;

Institutul Politehnic București

Facultatea de Chimie Industrială

Inginerie chimica

Inginer chimist, specializarea Tehnologia Compusilor Macromoleculari

Studii universitare, de doctorat

- Perioada

1990 – 1997

Institutul Politehnic București, Facultatea de Chimie Industrială

- Numele si tipul institutiei de invatamant si al organizatiei profesionale prin care s-a realizat for ea profesionala
- Domeniul studiat/aptitudini ocupationale
- Tipul calificarii/Diploma obtinuta
- Nivelul de clasificare a formei de instruire/invatamant

Inginerie chimica

Doctor inginer, domeniul Inginerie Chimica

Studii postuniversitare

APTITUDINI SI COMPETENTE

PROFESIONALE

Dobandite in cursul vietii si carierei dar care nu sunt recunoscute neaparat printr-un certificate sau o diploma.

LIMBA MATERNA

LIMBI STRAINE CUNOSCUTE

- abilitatea de a citi
- abilitatea de a scrie
- abilitatea de a vorbi

Limba romana

Limba engleza; Limba germana

Foarte bine

Foarte bine

Foarte bine

STAGII DE PERFECTIONARE

1992 Curs de Difractie Rietweld, Csiezyn Polonia

1999 - 2004 Universitatea Tehnica din Delft, Olanda (stagii anuale de cca. 3 saptamani), Cercetare stiintifica - domeniul: Materiale Avansate

2000 Universitatea din Essex Marea Britanie (stagiu de 2 saptamani), perfectionare: valorificarea deseurilor si management de mediu

2006 Fonduri Structurale in UE, Paris (Franta), curs intensiv, 1 saptamana

2011 Oportunitati de finantare in domeniul energiei in UE, Berlin (Germania), curs intensiv, 1 saptamana

APTITUDINI SI COMPETENTE

SOCIALE

Capacitate de comunicare clara si riguroasa

Capacitate de interactiune cu grupuri tinta variate, deschidere catre inter-disciplinaritate

Capacitate de interactiune cu entitati de monitorizare si audit

Competente in domeniul managementului cercetarii stiintifice

1. Implicarea in activitatea de cercetare finantata

Am derulat 34 de granturi si contracte, in calitate de director sau responsabil al echipei universitatii:

-Cercetare stiintifica: 27 granturi (7 granturi internationale; 16 granturi nationale; 4 contracte cu terti)

- Educatie si formare: 7 proiecte internationale

- Coordonator (director de grant/contract): 4 granturi internationale, 8 granturi nationale, 4 contracte de cercetare cu terti

- Coordonator al echipei din Universitate (responsabil stiintific): 18 granturi

Am activat ca membru in echipa altor 25 de granturi cu finantare la nivel national si european.

2. Activitate de management al cercetarii stiintifice la nivel institutional

- Director al **Departamentului de Management al Proiectelor de Educație și de Cercetare din Universitatea Transilvania din Brașov, DEMPEC** (2004-2012), cu atribuții de informare, consultanță și monitorizare a granturilor și proiectelor derulate de universitate. In această calitate am participat activ la formularea propunerilor și implementarea proiectelor majore ale universității, pentru dezvoltare de infrastructură (POS-CCE – *Institutu CDI Produse High Tech pentru Dezvoltare Durabilă*, și a proiectelor *CNCSIS Pallforme*) precum și a celor de formare a resurselor umane inalt calificate (*Școala Doctorală, 2008, 2009, 2010 și Școala Post-Doctorală*). Am participat la activitățile de evaluare interna, nationala si internationala a Universitatii.

- **Coordonator Instituțional al programului Erasmus** (2004 – 2012)

- **Coordonator al Compartimentului de Materiale Avansate** din Centrul de cercetare stiintifica: *Sisteme de Energii Regenerabile si Reciclare* din Institutul CD al Universitatii (2003 – prezent)

3. Activitatea de management al cercetarii stiintifice la nivel national

- **Colegiului Consultativ Național pentru Dezvoltare Științifică**: Membru in Comisia 4 (Materiale noi, micro- si nanotehnologii);

- **CNCSIS**: Membru in Consiliul National, 2008 – 2011

- **CNADTCU**: Membru al Comisiei de Ingineria Materialelor, 2016 - prezent

- **Comisie ARACIS** (Panelul Științe Ingineresti II): expert evaluator, 2007 - prezent

- **Evaluatori granturi** CNCSIS (2006-2009); CEEX (2006-2008); PNII (2008-2015); PNIII (2016 - prezent)

4. Activitatea de management al cercetarii stiintifice la nivel international

- **Comisia Europeana, DG Research** (2010 – 2013): Expert extern pentru monitorizare proiecte FP7/Cooperation, (Project Technical Advisor, PTA) pentru proiecte FP7. Am avut monitorizare 7 proiecte Cooperation CP-large (4) si CP-small (3) in aria tematica NMP.

Comisia Europeana: membru al comisiei de elaborare a SET Energy Plan (2012)

Evaluator granturi: H2020: FET, MSCA (2014 – prezent); Comenius, Leonardo da Vinci (2006-2007), CEEPUS (2005- 2011)

FP6, FP7 Responsabil al Punctului Regional de Contact;

1. **Indeplinesc conditiile de abilitare in domeniul Ingineria Materialelor:**

$I_1 = 13,53580$; $P = 7,15040$; $C = 57,29785$

(Standard minim obligatoriu pentru abilitare in Domeniul Ingineria Materialelor: $I_1 = 4$, $P = 2$, $C = 5$)

In activitatea de conducator de doctorat (2004 – prezent) am finalizat 13 programe de doctorat iar doua sunt in derulare

2. **Autor a peste 250 de articole publicate, dintre care 174 in jurnale cotate și/sau indexate ISI.**

3. **Indice Hirsch Web of Science: $h = 21$**

4. **Referent științific la 31 de publicații ISI:** Applied Catalysis B Environmental, Applied Energy, Applied Physics A, Applied Surface Science, Catalysis Today, Chemosphere, Current Opinion in Environmental Sustainability, International

Journal of Environmental Science and Technology, Materials Chemistry and Physics, Materials Letters, Materials Science and Engineering, B, Materials Science in Semiconductor Processing, International Journal of Environmental Science and Technology, Journal of Composite Materials, Journal of Hazardous Materials, Journal of Inorganic and Organometallic Polymers and Materials, Journal of Materials Chemistry, Journal of Materials Science, Journal of Photochemistry and Photobiology A: Chemistry, Physica Status Solidi A, Polymer Composites, Powder Technology, Process Safety and Environmental Protection, Renewable Energy, Solar Energy Materials and Solar Cells, Solid State Sciences, Surface & Coatings Technologies, Thin Solid Films, Water and Environment Journal, Water Resources and Industry, Water Science and Technology.

5. **Membru in Comitetul Editorial:** Scientific World Journal - Energy ($FI_{RG} = 1,524$); Environmental Engineering and Management Journal (factor de Impact, $FI_{ISI} = 1,096$); **Responsabil Comitet de Redacție al Buletinului Universității Transilvania**, seriile 1 si 2 (Științe Ingineresti, 2005 – 2012).
6. **Membru in comisii de sustinere publica a tezeilor de doctorat** la: Technical University of Dresda, Universitatea Politehnica din Bucuresti, Universitatea din Bucuresti, Universitatea Tehnica Gh. Asachi Iasi, Universitatea Babes Bolyai, Academia Romana – Institutul Ilie Murgulescu

ALTE APTITUDINI SI COMPE
TENTE

Membru in Comitetul stiintific al:

Conference for Sustainable Energy, 2005, 2008, 2011, 2014, 2017
International Conference on Material Science, BRAMAT 2009, 2007, 2005
Conference on Polymers and Moulds, PMI, Gent, 2008, 2010, 2012
Coloquie Franco-Roumain en Chimie, 2008
International Conference on Environment Engineering and Management, Tulcea, 2009
International Conference „Chimia”- Trends in Applied Chemistry, Constanta, 2009, 2012
Romanian Conference on Advanced Materials, ROCAM, 2009
International Conference on Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences, 2010
European Syposium on Thermal Analysis and Calorimetry ESTAC12, 2018

Membru al Asociatiilor Profesionale

American Chemical Society (ACS)
Association of Plastics Engineers
IEEE
International Adsorption Society (IAS); International Solar Energy Society (ISES)
Societatea Romana de Chimie (presedinte Filia Brasov)
Societatea Romana de Electrochimie
Societatea Romana de Corozii
Societatea Nationala de Stiinta si Ingineria Mediului

Premii

- Young Scientist Award (Uniunea Mondiala de Cristalografie), 2000;
- ANCS – Sectiunea Materiale avansate (2008)
- Outstanding Reviewer Award conferit de jurnalul: *Solar Energy Materials and Solar Cells* (2015)
- Premiul *Constantin Budeanu* al Academiei Romane pentru anul 2015, Sectiunea Stinte Tehnice (decernat in 2017) pentru volumul: I. Vișa, C. Jaliu, A. Duță, M. Neagoe, M. Comsit, M. Moldovan, D.a Ciobanu, B. Burduhos, R. Săulescu *The Role of Mechanisms in Sustainable Energy Systems*, Ed. Universitatii Transilvania din Brasov, 2015

PERMIS DE CONDUCERE
HOBBY

Categoria B

Lectura beletristica, memorialistica, istoria stiintei

Rezultate ale Cercetării Științifice

1. Lista de cărți, monografii, capitole in monografii

1. Visa I., **Duta A.**, (Editors), *Nearly Zero Energy Communities*, Springer, Energy series, 2017
2. 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, pg. 286 – 205
3. Visa I., Jaliu C., **Duta A.**, Neagoe, Comsit M., Ciobanu D., Moldovan M., Burduhos B., Saulescu R., *The Role of Mechanisms in Sustainable Energy Systems*, Editura Universitatii Transilvania, 2015 – premiul Academiei Romane, 2015
4. 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, ISBN 978-94-017-9696-5
5. 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
6. 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, pg. 205-219
7. 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
8. **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, ISBN-13: 978-1629483641
9. Cazan C., **Duta A.**, *Recycled rubber: Composite matrix*, in: *Rubber: Type, Properties and Use*, Ed. Popa, A.G., Ed. Nova Science Publishers, Inc., 2013
10. **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>
11. **Duta A.**, *Project Based School Management*, Ed. Bakay Emin, Ed. Menderez, 2010
12. Anicai, L., Iulian O., **Duta A.**, s.a., *Electrochimie si Corozioane pentru Doctoranzi*, Ed. Politehnica Press, 2008
13. Vișa I., **Duță A.**, *Sustainable Energy*, Ed. Univ. Transilvania, 2008
14. Vișa I., **Duță A.**, *Renewable Energy Systems, Applications*, Ed. Univ. Transilvania, 2006
15. Visa I., **Duta A.**, *Renewable Energy Systems, Basics*, Ed. Univ. Transilvania, 2005
16. J.van Paemel, L. Bergmans, L. Moens, **A. Duta**, *Computer Use In Experimental Chemistry*, Ed. Univ. Transilvania Brasov, 2002
17. R. Tica, **A. Duta**, D. Perniu, L. Isac, *Chimie Generala*, Ed. Universității Transilvania, 2002
18. S. Kaplanis, I. Visa, **A. Duta**, 2002, *Sustainable Development, Renewable Energy Sources and Environment*, Ed. Univ. Transilvania Brasov, 2002
19. **A. Duta**, *Poluarea, Monitorizarea si Tratarea Apelor*, Ed. Univ. Transilvania, 2001
20. **A. Duta**, R. Tica, *Chimia Materialelor Industriale*, Ed. Gryphon, Brasov, 1999
21. **A. Duta**, *Chimie Fizica – Electrochimie si Corozioane*, Univ. Transilvania din Brasov, 1996

2. Articole publicate in jurnale ISI, Web of Science

Domeniul: Materiale pentru conversia energiei solare

Nr. Crt.	Articol	Nr. citari ISI
1	Visa M., Bogatu C., Duta A. , Simultaneous adsorption of dyes and heavy metals from multicomponent solutions using fly ash, <i>Applied Surface Science</i> , Vol. 256, 17, Pg. 5486-5491, 2010	81
2	Isac L., Duta A. , Kriza A., Copper sulfides obtained by spray pyrolysis - Possible absorbers in solid-state solar cells, <i>Thin Solid Films</i> , Vol. 515, 15, Pg. 5755-5758, 2007	71
3	Manolache S., Duta A. , Isac L., The influence of the precursor concentration on CuSbS ₂ thin films deposited from aqueous solutions, <i>Thin Solid Films</i> , Vol. 515, 15, Pg. 5957-5960, 2007	67
4	Andronic L., Enesca A., Vladuta C., Duta A. , Photocatalytic activity of cadmium doped TiO ₂ films for photocatalytic degradation of dyes, <i>Chemical Engineering Journal</i> , Vol. 152, 1, Pg. 64-71, 2009	51
5	Andronic L., Duta A. , TiO ₂ thin films for dyes photodegradation, <i>Thin Solid Films</i> , Vol. 515, 16, Pg. 6294-6297, 2007	49
6	Isac, L. A.; Duta, A. ; Kriza, A., The growth of CuS thin films by Spray Pyrolysis, <i>Journal of Physics</i>	49

	<i>Conference Series</i> , Vol. 61, Pg. 477-481, 2007	
7	Andronic L., Duta, A. , The influence of TiO ₂ powder and film on the photodegradation of methyl orange, <i>Materials Chemistry and Physics</i> , Vol. 112, 3, Pg. 1078-1082, 2008	49
8	Andronic L., Isac L., Duta, A. , Photochemical synthesis of copper sulphide/titanium oxide photocatalyst, <i>Journal of Photochemistry and Photobiology A – Chemistry</i> , Vol. 221, 1, Pg. 30-37, 2011	47
9	Visa M., Isac L., Duta, A. , Fly ash adsorbents for multi-cation wastewater treatment, <i>Applied Surface Science</i> , Vol. 258, 17, Pg.6345-6352, 2012	44
10	Bertus L. M., Faure C., Danine A., Duta A. , Synthesis and characterization of WO ₃ thin films by surfactant assisted spray pyrolysis for electrochromic applications, <i>Materials Chemistry and Physics</i> , Vol.140, 1, Pg. 49-59, 2013	41
11	Enesca A., Duta A. , Schoonman J., Study of photoactivity of tungsten trioxide (WO ₃) for water splitting, <i>Thin Solid Films</i> , Vol. 515,16, Pg. 6371-6374, 2007	37
12	Visa M., Carcel R.A., Andronic L., Duta A. , Advanced treatment of wastewater with methyl orange and heavy metals on TiO ₂ , fly ash and their mixtures, <i>Catalysis Today</i> , Volume: 144 Issue: 1-2 Pages: 137-142 Published: JUN 15 2009	31
13	Visa M., Duta A. , Methyl-orange and cadmium simultaneous removal using fly ash and photo-Fenton systems, <i>Journal of Hazardous Materials</i> , Vol. 244, Pg. 773-779, 2013	29
14	Andronic L., Andrasi D., Enesca A., Duta A. , The influence of titanium dioxide phase composition on dyes photocatalysis, <i>Journal of sol-gel science and technology</i> , Vol. 58, 1, Pg. 201-208, 2011	28
15	Duta A. , Visa M., Simultaneous removal of two industrial dyes by adsorption and photocatalysis on a fly-ash-TiO ₂ composite, <i>Journal of Photochemistry and Photobiology A – Chemistry</i> , Vol. 306, Pg. 21-30, 2015	28
16	Isac L., Popovici I., Enesca A., Duta A. , Copper Sulfide (Cu(x)S) Thin Films as Possible p-Type Absorbers in 3D Solar Cells, <i>Energy Procedia</i> , Vol. 2, 1, Pg., 71-78, 2010	23
17	Visa M., Duta, A. , TiO ₂ /fly ash novel substrate for simultaneous removal of heavy metals and surfactants, <i>Chemical Engineering Journal</i> , Vol. 223, Pg. 860-868, 2013	22
18	Visa, M.; Pricop, F.; Duta, A. , Sustainable treatment of wastewaters resulted in the textile dyeing industry, <i>Clean Technologies and Environmental Policies</i> , Vol. 13, 6, Pg. 855-861, 2011	22
19	Duta A. , Manolache S., Visa I., TiO ₂ thin layers with controlled morphology for ETA (extremely thin absorber) solar cells, <i>Thin Solid Films</i> , Vol. 511, Pg. 195-198, 2006	22
20	Vladuta C., Andronic L., Visa M., Duta A. , Ceramic interface properties evaluation based on contact angle measurement, <i>Surface & Coatings Technologies</i> , Vol. 202, 11, Pg. 2448-2452, 2007	21
21	Enesca A., Enache C., Duta A. , Schoonman J., High crystalline tungsten trioxide thin layer obtained by SPD technique, <i>Journal of the European Ceramic Society</i> , Vol. 26, 4-5, Pg. 571-576, 2006	21
h = 21		
22	Visa I., Moldovan M.D., Comsit M., Duta A. , Improving the renewable energy mix in a building toward the nearly zero energy status, <i>Energy and Buildings</i> , Vol. 68, Pg. 72-78, Part: A, 2014	21
23	Andronic L., Duta A. , Photodegradation processes in two-dyes systems - Simultaneous analysis by first-order spectra derivative method, <i>Chemical Engineering Journal</i> , Vol. 198, Pg. 468-475, 2012	18
24	Visa M., Andronic L., Lucaci D., Duta A. , Concurrent dyes adsorption and photo-degradation on fly ash based substrates, <i>Adsorption – Journal of the International Adsorption Society</i> , Vol. 17, 1, Pg. 101-108, 2011	18
25	Carcel R.A., Andronic L., Duta A. , Photocatalytic activity and stability of TiO ₂ and WO ₃ thin films, <i>Materials Characterisation</i> , Vol. 70, Pg. 68-73, 2012	17
26	Bertus L. M., Duta A. , Synthesis of WO ₃ thin films by surfactant mediated spray pyrolysis, <i>Ceramics International</i> , Vol. 38, 4, Pg. 2873-2882, 2012	16
27	Bertus L. M., Enesca A., Duta A. , Influence of spray pyrolysis deposition parameters on the optoelectronic properties of WO ₃ thin films, <i>Thin solid films</i> , Vol. 520, 13, Pg. 4282-4290, 2012	16
28	Sica M., Duta A. , Teodosiu C., Thermodynamic and kinetic study on ammonium removal from a synthetic water solution using ion exchange resin, <i>Clean Technologies and Environmental Policies</i> , Vol. 16, 2, Pg. 351-359, 2014	15
29	Enesca A., Isac L., Duta A. , Hybrid structure comprised of SnO ₂ , ZnO and Cu ₂ S thin film semiconductors with controlled optoelectric and photocatalytic properties, <i>Thin Solid Films</i> , Vol. 542, Pg. 31-37, 2013	15
30	Enesca A., Duta A. , Schoonman J., Influence of tantalum dopant ions (Ta ⁵⁺) on the efficiency of the tungsten trioxide photoelectrode, <i>Physica status solidi A – Applications and Materials Science</i> , Vol. 205, 8, Pg. 2038-2041, 2008	15
31	Enesca A., Baneto M., Perniu D., Duta A. , Solar-activated tandem thin films based on CuInS ₂ , TiO ₂ and SnO ₂ in optimized wastewater treatment processes, <i>Applied Catalysis B - Environmental</i> , Vol. 186, Pg. 69-76, 2016	15
32	Baneto M., Enesca A., Lare Y., Duta A. , Effect of precursor concentration on structural, morphological and opto-electric properties of ZnO thin films prepared by spray pyrolysis, <i>Ceramics International</i> , Vol. 40, 6, Pg. 8397-8404, 2014	14
33	Andronic L., Perniu D., Duta A. , Synergistic effect between TiO ₂ sol-gel and Degussa P25 in dye photodegradation, <i>Journal of sol-gel science and technology</i> , Vol. 66, 3, Pg. 472-480, 2013	14
34	Isac L., Andronic L., Enesca A., Duta A. , Copper sulfide films obtained by spray pyrolysis for dyes photodegradation under	14

- visible light irradiation, *Journal of Photochemistry and Photobiology A - Chemistry*, Vol. 252, Pg. 53-59, 2013
- 35 Andronic L., Manolache S., **Duta A.**, Photocatalytic degradation of methyl orange: Influence of H₂O₂ in the TiO₂-based system, *Journal of Nanoscience and Nanotechnology*, Vol. 8, 2, Pg. 728-732, 2008 14
- 36 Enesca A., Isac L., Andronic L., **Duta A.**, Tuning SnO₂-TiO₂ tandem systems for dyes mineralization, *Applied Catalysis B - Environmental*, Vol. 147, Pg. 175-184, 2014 13
- 37 Popovici I., **Duta A.**, Tailoring the Composition and Properties of Sprayed CuSbS₂ Thin Films by Using Polymeric Additives, *International Journal of Photoenergy*, Article Number: 962649, 2012 13
- 38 Enesca A., **Duta A.**, Tailoring WO₃ thin layers using spray pyrolysis technique, *Physica Status Solidi C-Current Topics in Solid State Physics*, Vol. 5, 11, Pg. 3499-3502, 2008 13
- 39 Enesca A., Andronic L., **Duta A.**, Optical properties and chemical stability of WO₃ and TiO₂ thin films photocatalysts, *Romanian Journal of Information Science and Technology*, Vol. 10, 3, Pg. 269-277, 2007 13
- 40 Visa I., **Duta A.**, Comsit M., Design and experimental optimisation of a novel flat plate solar thermal collector with trapezoidal shape for facades integration, *Applied Thermal Engineering*, Vol. 90, Pg. 432-443, 2015 12
- 41 Visa M., **Duta A.**, Advanced Cd²⁺ removal on dispersed TiO₂-Fly Ash, *Environmental Engineering and Management Journal*, Vol. 7, 4, Pg. 373-378, 2008 12
- 42 Ienei E., Isac L., Cazan C., **Duta A.**, Characterization of Al₂O₃/NiOx solar absorber obtained by spray pyrolysis, *Solid State Sciences*, Vol. 12, 11, Special Issue: SI, Pg. 1894-1897, 2010 12
- 43 Ienei E., Isac L., **Duta A.**, Synthesis of Alumina thin films by spray pyrolysis deposition, *Revue Roumaine de Chimie*, Vol. 55, 3, Pg. 161-165, 2010 12
- 44 Gyoergy E., Perez del Pino A., Logofatu 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*, Vol. 97, 9, Pg. 2718-2724, 2014 11
- 45 Vladuta C., Voinea M., Purghel E., **Duta A.**, Correlations between the structure and the morphology of PET-rubber nanocomposites with different additives, *Materials Science and Engineering B- Advanced Functional Solid-state Materials*, Vol. 165, 3, Pg. 221-226, 2009 11
- 46 Voinea M., Vladuta C., Bogatu C., **Duta A.**, Surface properties of copper based cermet materials, *Materials Science and Engineering B- Advanced Functional Solid-state Materials*, Vol. 152, 1-3, Pg. 76-80, 2008 11
- 47 Isac L. A., **Duta A.**, Kriza A., Crystal order in Cu₂S thin films obtained by spray pyrolysis, *Journal of Optoelectronics and Advanced Materials*, Vol. 9, 5, Pg. 1265-1268, 2007 11
- 48 Visa M., Bogatu C., **Duta A.**, Tungsten oxide - fly ash oxide composites in adsorption and photocatalysis, *Journal of Hazardous Materials*, Vol. 289, Pg. 244-256, 2015 10
- 49 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*, Vol. 258, 10, Pg. 4339-4346, 2012 10
- 50 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*, Vol. 142, 2, Pg. 224-230, 2012 10
- 51 Visa M., Andronic L., **Duta A.**, Photocatalytic properties of Titania-Fly Ash thin films, *Environmental Engineering and Management Journal*, Vol. 8, 4, Pg. 633-638, 2009 10
- 52 Andronic L., Hristache B., Enesca A., **Duta A.**, Studies on titanium oxide catalyst doped with heavy metals (Cadmium, copper and zinc), *Environmental Engineering and Management Journal*, Vol. 8, 4, Pg. 747-751, 2009 10
- 53 Enesca A., Andronic L., **Duta A.**, Wastewater treatment using optimized TiO₂ photocatalytic properties, *Environmental Engineering and Management Journal*, Vol. 8, 4, Pg. 753-758, 2009 10
- 54 Lucaci D., **Duta A.**, Adsorption of Cu²⁺ on white poplar and oak sawdust, *Environmental Engineering and Management Journal*, Vol. 8, 4, Pg. 871-876, 2009 10
- 55 Visa M., Andronic L., **Duta A.**, Fly ash-TiO₂ nanocomposite material for multi-pollutants wastewater treatment, *Journal of Environmental Management*, Vol. 150, Pg. 336-343, 2015 9
- 56 Duta M., Perniu D., **Duta A.**, Photocatalytic zinc oxide thin films obtained by surfactant assisted spray pyrolysis deposition, *Applied Surface Science*, Vol. 306, Pg. 80-88, 2014 8
- 57 Carcel R. A., Andronic L., **Duta A.**, Photocatalytic Degradation of Methylorange Using TiO₂, WO₃ and Mixed Thin Films Under Controlled pH and H₂O₂, *Journal of Nanoscience and Nanotechnology*, Vol. 11, 10, Pg. 9095-9101, 2011 8
- 58 Manolache S. A., **Duta A.**, The Development of Crystalline Sb₂S₃ Thin Films as a Component of the Three-Dimensional (3D) Solar Cells, *Romanian Journal of Information Science and Technology*, Vol. 11, 2, Pg. 109-121, 2008 8
- 59 **Duta A.**, Isac L., Milea A., Coloured solar-thermal absorbers - a comparative analysis of cermet structures, *Energy Procedia*, Vol. 48, Pg. 543-553, 2014 8
- 60 Dudita M., Isac L., **Duta A.**, Influence of solvents on properties of solar selective coatings obtained by spray pyrolysis, *Bulletin of Materials Science*, Vol. 35, 6, Pg. 997-1002, 2012 7
- 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*, Vol. 519, 17 Special Issue: SI, Pg. 5780-5786, 2011 7
- 62 Enesca A., **Duta A.**, The influence of the precursor concentration on the properties of SnO₂ thin films, *Thin Solid Films*, 7

- 63 Visa, M., **Duta A.**, Enhanced heavy metal adsorption on dye-modified fly ash, *Environmental Engineering and Management Journal*, Vol. 8, 4, Pg. 803-808, 2009 7
- 64 Manolache S. A., **Duta A.**, The influence of the spray deposition parameters in the photovoltaic response of the three-dimensional solar cell: TCO/dense TiO₂/CuSbS₂/graphite, *Journal of Electronics and Advanced Materials*, Vol. 9, 10, Pg. 3219-3222, 2007 7
- 65 Enesca A., **Duta A.**, Manolache S., The influence of defects on the conduction in photoelectrodes used for water splitting, *Journal of Electronics and Advanced Materials*, Vol. 9, 6, Pg. 1630-1632, 2007 7
- 66 Manolache S. A., Andronic L., **Duta A.**, The influence of the deposition condition on crystal growth and on the band gap of CuSbS₂ thin film absorber used for Solid State Solar Cells (SSSC), *Journal of Electronics and Advanced Materials*, Vol. 9, 5, Pg.1269-1272, 2007 7
- 67 Visa I., Burduhos B., Neagoe M., **Duta A.**, Comparative analysis of the infield response of five types of photovoltaic modules, *Renewable Energy*, Vol. 95, Pg. 178-190, 2016 6
- 68 Mouchaal Y., Enesca A., Mihoreanu C., Khelil A., **Duta A.**, Tuning the opto-electrical properties of SnO₂ thin films by Ag⁺¹ and In⁺³ co-doping, *Materials Science and Engineering B- Advanced Functional Solid-state Materials*, Vol. 199, Pg. 22-29, 2015 6
- 69 Mancieru L.M., 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*, Vol. 630, Pg. 133-145, 2015 6
- 70 Baneto M., Enesca A., Mihoreanu C., **Duta A.**, Effects of the growth temperature on the properties of spray deposited CuInS₂ thin films for photovoltaic applications, *Ceramics International*, Vol. 41, 3, Pg. 4742-4749, Part: B, 2015 6
- 71 Dudita M., Mancieru L. M., Anastasescu M., **Duta A.**, Coloured TiO₂ based glazing obtained by spray pyrolysis for solar thermal applications, *Ceramics International*, Vol. 40, 3, Pg. 3903-3911, 2014 6
- 72 Dudita M., Bogatu C., Enesca A., **Duta A.**, The influence of the additives composition and concentration on the properties of SnO_x thin films used in photocatalysis, *Materials Letters*, Vol. 65, 14, Pg. 2185-2189, 2011 6
- 73 Isac L., **Duta A.**, Purghel E., Tailoring alumina thin film properties using hydrophilic/hydrophobic copolymer additives, *Physica Statu Solidi A – Applications and Materials Science*, Vol. 205, 10, Pg. 2413-2416, 2008 6
- 74 Perniu D., Vouwzee S., **Duta A.**, Schoonman J., Defect chemistry of solar cell chalcopyrite materials, *Journal of Optoelectronic and Advanced Materials*, Vol. 9, 5, Pg. 1568-1571, 2007 6
- 75 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*, Vol. 320, Pg. 469-478, 2016 5
- 76 Kermadi S., Sali S., Ameer A.F., Zougar L., Boumaour M., Toumiat A., Melnik N.N., Hewak D.W., **Duta A.**, Effect of copper content and sulfurization process on optical, structural and electrical properties of ultrasonic spray pyrolysed Cu₂ZnSnS₄ thin films, *Materials Chemistry and Physics*, Vol.169, pg. 96-104, 2016 5
- 77 Visa M., Isac L., **Duta A.**, New fly ash TiO₂ composite for the sustainable treatment of wastewater with complex pollutants load, *Applied Surface Science*, Vol. 339, Pg. 62-68, 2015 5
- 78 Enesca A., Isac L., **Duta A.**, Charge carriers injection in tandem semiconductors for dyes mineralization, *Applied Catalysis B- Environmental*, Vol. 162, Pg. 352-363, 2015 5
- 79 Gyoergy E., Perez del Pino A., Logofatu, C., Isac L., **Duta A.**, Effect of nitrogen doping on wetting and photoactive properties of laser processed zinc oxide-graphene oxide nanocomposite layers, *Journal of Applied Physics*, Vol. 116, 2, Article Number: 024906, 2014 5
- 80 Isac L., Popovici I., Enesca A., **Duta A.**, Copper sulfides thin films with controlled properties for photovoltaic cells, *Environmental Engineering and Management Journal*, Vol. 10, 9, Pg. 1235-1241, 2011 5
- 81 Lucaci D., **Duta A.**, Removal of methyl orange and methylene blue dyes from wastewater using sawdust and sawdust-fly ash as adsorbents, *Environmental Engineering and Management Journal*, Vol 10, 9, Pg. 1255-1262, 2011 5
- 82 Vatasescu M.M., Diaconescu D., **Duta A.**, Burduhos B.G., Atmospheric pollution evaluation in Brasov Romania based on turbidity factor analysis, *Environmental Engineering and Management Journal*, Vol. 10, 2, Pg 251-256, 2011 5
- 83 Enesca A., Bogatu C., Voinea M., **Duta A.**, Opto-electronic properties of SnO₂ layers obtained by SPD and ECD techniques, *Thin Solid Films*, Vol.519, 2, Pg. 563-567, 2010 5
- 84 Bogatu Cristina, Vilcu Rodica, Geana D., **Duta A.**, High pressure behaviour of the system R23 + Phenylpropane. Experimental results and modelling Liquid-Vapour, *Revue Roumaine de Chimie*, Vol. 54, 5, Pg. 343-, 2009 5
- 85 Voinea M., Bogatu C., Chitanu G.C., **Duta A.**, Copper cermet used as selective coatings for flat plate solar collectors, *Revista de Chimie*, Vol. 59, 6, Pg. 659-663, 2008 5
- 86 Visa M., **Duta A.**, Adsorption behaviour of cadmium and copper compounds on a mixture of FSA:TiO₂, *Revue Roumaine de Chimie*, Vol. 55(3), pg. 167-173, 2010 5
- 87 Duta, L., Popescu, C., Popescu, A., Motoc, M., Logofatu, C., Enesca, A., **Duta, A.**, Gyorgy, E., Nitrogen-doped and gold-loaded TiO₂ photocatalysts synthesized by sequential reactive pulsed laser deposition, *Applied Physics A – Materials science & processing*, 117(1), pg. 97-101, 2014 4
- 88 Perez del Pino, Angel; Gyorgy, Eniko; Logofatu, Constantin, **Duta A.**, Study of the deposition of graphene oxide by 4

- matrix-assisted pulsed laser evaporation, *Journal of Applied Physics D – Applied Physics*, Vol. 46, 50, 2013
- 87 Visa M., **Duta A.**, Adsorption of cadmium and copper compounds on a mixture FA:TiO₂, *Revue Roumaine de Chimie*, Vol 55, 3, Pg. 167-173, 2010 4
- 88 Visa M., **Duta A.**, Tungsten oxide and fly ash mixtures for single step wastewater treatment process, *Journal of Optoelectronics and Advanced Materials*, Vol. 12, 2, Pg. 406-410, 2010 4
- 89 Voinea M., Ienei E., Bogatu C., **Duta A.**, Solar Selective Coatings Based on Nickel Oxide Obtained via Spray Pyrolysis, *Journal of Nanoscience and Nanotechnologies*, Vol. 9, 7, Special Issue: SI, Pg. 4279-4284, 2009 4
- 90 Visa M., Isac L., **Duta A.**, Fly Ash - Activated Carbon Powder Composites for Dyes and Heavy Metals Removal, *Advanced Materials Research*, Vol. 79-82, Pg. 243-246, Part: 1-2, 2009 4
- 91 Andronic L., **Duta A.**, Influence of pH and H₂O₂ on dyes photodegradation, *Physica Status Solidi C-Current Topics in Solid State Physics*, Vol. 5, 10, Pg. 3332-3337, 2008 4
- 92 Isac L. A.; **Duta A.**; Nanu M., Tailoring copper sulfide thin films morphology using spray pyrolysis deposition technique, *Journal of Optoelectronics and Advanced Materials*, Vol. 9, 10, Pg. 3072-3075, 2007 4
- 93 Bogatu C., Perniu D., Sau C., **Duta A.**, Ultrasound assisted sol-gel TiO₂ powders and thin films for photocatalytic removal of toxic pollutants, *Ceramics International*, Vol. 43, 11, Pg. 7963-7969, 2017 3
- 94 Gyorgy, E.; Perez del Pino, A.; Datcu, A.; Duta L., Iordache C., **Duta A.**, Titanium oxide - reduced graphene oxide - silver composite layers synthesized by laser technique: Wetting and electrical properties, *Ceramics International*, Vol. 42, 14, Pg. 16191-16197, 2016 3
- 95 Bogatu C., Perniu D., **Duta A.**, Challenges in developing photocatalytic inks, *Powder Technology*, Vol. 287, Pg. 82-95, 2016 3
- 96 Ienei E., Milea A.C., **Duta A.**, Influence of spray pyrolysis deposition parameters on the optical properties of porous alumina films, *Energy Procedia*, Vol. 48, Pg. 97-104, 2014 3
- 97 Ciobanu D., Visa I., **Duta A.**, Solar thermal collectors outdoor testing in saline environment, *Energy Procedia*, Vol. 48, Pg. 707-714, 2014 3
- 98 Bogatu C., Geana D., Vilcu R., **Duta A.**, Fluid phase equilibria in the binary system trifluoromethane+1-phenyloctane, *Fluid Phase Equilibria*, Vol. 295, 2, Pg. 186-193, 2010 3
- 99 Visa M., Enesca A., **Duta A.**, Simultaneous Adsorption of Methyl Orange and Heavy Metals from Solution Using Fly Ash, *Advanced Materials Research*, Vol. 79-82, Pg. 247-250, Part: 1-2, 2009 3
- 100 Perniu D., **Duta A.**, Schoonman J., The defect structure of copper indium disulfide, *NATO Science for Peace and Security Series B-Physics and Biophysics*, Pages: 457-, 2008 3
- 101 Visa I., Diaconescu D.V., **Duta A.**, PV tracking data needed in the optimal design of the azimuthal tracker's control program, *Proceedings of the 11th International Conference on Optimization of Electrical and Electronic Equipment*, VI. II A and B, Pg. 449-454, 2008 3
- 102 Enesca A., **Duta A.**, Isac L., Manolache S.A., Schoonman J., The influence of the annealing process on the properties of WO₃ photoelectrode used in a photoelectrochemical cell (PECC), *Journal of Physics Conference Series*, Vol. 61, Pg. 472-476, 2007 3
- 103 **Duta A.**, Enesca A., Bogatu C., Gyorgy E., Solar-active photocatalytic tandems. A compromise in the photocatalytic processes design, *Materials Science in Semiconductor Processing*, Vol. 42, Special Issue: SI, Pg. 94-97, Part: 1, 2016 2
- 104 Visa I., Comsit M., Moldovan M. D., **Duta A.**, Outdoor simultaneous testing of four types of photovoltaic tracked modules, *Journal of Renewable and Sustainable Energy*, Vol. 6, 3, Article Number: 033142, 2014 2
- 105 Milea C.A., Ienei E., Bogatu C., **Duta A.**, Sol-gel Al₂O₃ powders-matrix in solar thermal absorbers, *Journal of Sol-Gel Science and Technology*, Vol. 67, 1, Pg. 112-120, 2013 2
- 106 Enesca A., **Duta A.**, The influence of selective doping ions (Na⁺, Ta⁵⁺) on the optoelectronic properties of WO₃ thin films, *Applied Physics A - Materials Science & Processing*, Vol. 111, 2, Pg. 639-643, 2013 2
- 107 Isac L., Popovici I., **Duta A.**, Tailoring chemically sprayed Cu_xS films crystallinity, *Revue Roumaine de Chimie*, Vol. 56, 12, 1107-, 2011 2
- 108 Lucaci D., Visa M., **Duta A.**, Copper removal on wood-fly ash substrates – Thermodynamical study, *Revue Roumaine de Chimie*, Vol. 56, 10-11, Pg. 1067-1074, 2011 2
- 109 Lucaci D., Visa M., **Duta A.**, Wood waste for Cu²⁺ removal from waste water. A comparative study, *Environmental Engineering and Management Journal*, Vol. 10, 2, Pg.169-174, 2011 2
- 110 Bogatu C., Geana D., **Duta A.**, Pot W., de Loos T., Fluid-Phase Equilibria in the Binary System Trifluoromethane 1-Phenyltetradecane, *Industrial&Engineering Chemistry Research*, Vol. 50, 1, Pg 213-220, 2011 2
- 111 Vladuta C., Andronic L., **Duta A.**, Effect of TiO₂ Nanoparticles on the Interface in the PET-Rubber Composites, *Journal of Nanoscience and Nanotechnology*, Vol 10, 4, Pg. 2518-2526, 2010 2
- 112 Burduhos B., Diaconescu D.V., Visa I., **Duta A.**, Electrical Response of an Optimized Oriented Photovoltaic System, *Proceedings of the International Conference on Optimization of Electrical and Electronic Equipment*, Pg. 1138-1145, 2010 2
- 113 Manciualea I., Bogatu C., Comanita E., **Duta A.**, Mannich basis – Corrosion inhibitors in saline water, *Environmental Engineering and Management Journal*, Vol. 8, 4, Pg. 877-882, 2009 2

114 Bogatu C., Manciualea I., **Duta A.**, Mechanism of Steel Corrosion Inhibition using Mannich Bases, *Advanced Materials Research*, Vol. 79-82, Pg. 1963-1966, Part: 1-2, 2009 2

115 **Duta A.**, Bogatu C., Chitanu G.C. Electrochemical deposition of Ni-based thin film cermets using polymeric additives, *Physica Status Solidi C-Current Topics in Solid State Physics*, Vol. 5, 11, Pg. 3530+, 2008 2

116 Andronic L., Manolache S., **Duta A.**, TiO₂ thin films prepared by spray pyrolysis deposition and their photo-catalytic activities, *Journal of Optoelectronics and Advanced Materials*, Vol. 9, 5, Pg. 1403-1406, 2007 2

117 Andronic L., **Duta A.**, Titanium dioxide thin film for photodegradation of methyl orange, *Advanced Materials Research*, Vol. 23, Pg. 325-328, 2007 2

118 Motoc A.M., Piticescu R.R., Carcel R., **Duta A.**, Hydrothermally synthesized TiO₂ based nanopowders for photocatalytic applications, *Environmental Engineering and Management Journal*, Vol. 10(9), pg. 1299-1303, 2011 1

119 Bogatu C., Vilcu R., **Duta A.**, Vapour-liquid, Liquid-liquid and Vapour-liquid-liquid Equilibria in the System of Trifluoromethane+(2-methylpropyl)benzene, *Revista de Chimie*, Vol. 61, 8, Pg. 767-769, 2010 1

120 Enesca A., Comsit M., Visa I., **Duta A.**, Photovoltaic Efficiency of a Grid Connected 10 kWp System Implemented in the Brasov Area, *Proceedings of the International Conference on Optimization of Electrical and Electronic Equipment*, Pg.1146-1151, 2010 1

121 Carcel R.A., Andronic L., **Duta A.**, Cd²⁺ Modified TiO₂ for methyl orange photodegradation, *Revue Roumaine de Chimie*, Vol. 54, 4, Pg. 309+, 2009 1

122 Bogatu C., Voinea M., **Duta A.**, The electrochemical deposition of Cu/CuOx solar selective coatings with controlled morphology, *Revue Roumaine de Chimie*, Vol. 54, 3, pg. 235-241, 2009 1

123 **Duta A.**, Enesca A., Andronic L., Tailoring Photocatalytic Properties of Tungsten Oxide Thin Films, *Advanced Materials Research*, Vol. 79-82, Pg. 847-850 Part: 1-2, 2009 1

124 Purghel E., Voinea M., Isac L., **Duta A.**, Optical properties of Ni/NiOx as infiltration agent in cermet solar IR absorber, *Revista de Chimie*, Vol. 59, 4, Pg. 469-471, 2008 1

125 Voinea M., **Duta A.**, Electrochemical deposition of black nickel solar absorber coatings on copper substrate for solar thermal applications, *Journal of Optoelectronics and Advanced Materials*, Vol. 9, 5, Pg. 1454-1456, 2007 1

126 **Duta A.**, Visa, I., Perniu, D., "From material to prototype" - Integrating advanced materials in engineering studies, *Proceedings of the Symposium and Forum on Education in Materials Science, Technology and Engineering*, Pg. 29-33, 2007 1

127 **Duta A.**, Geana D., Vapour liquid equilibrium in asymmetric mixtures of n-alkanes with ethane, *Turkish Journal of Chemistry*, Vol. 26, 4, Pg. 481-489, 2002 1

128 **Duta A.**, Geana D., Cubic equations of state applied in the n-alkanes containing binary systems study, *Revista de Chimie*, Vol. 47, 4, Pg. 332-342, 1996 1

129 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 1

130 Hermenean I.S., Visa I., **Duta A.**, Diaconescu, D.V., Modelling temperature variation in a CPV system, *Environmental Engineering and Management Journal*, 10 (2), pg. 263-269, 2011 1

131 **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*, Vol. 300 Special Issue: SI, Pg. 18-27, 2018 0

132 Ilie A.C., Visa I., **Duta A.**, Solar-Thermal Systems for Domestic Hot Water Production Implemented in Collective Households, *Journal of Energy Engineering*, Vol. 143, 6, Article Number: 04017065, 2017 0

133 Mihoreanu C., Banciu A., Enesca A., **Duta A.**, Silica-Based Thin Films for Self-Cleaning Applications in Solar Energy Converters, *Journal of Energy Engineering*, Vol. 143, 5, Article Number: 04017029, 2017 0

134 Moldovan M.D., Visa I., **Duta A.**, Enhanced Sustainable Cooling for Low Energy Office Buildings in Continental Temperate Climate, *Journal of Energy Engineering*, Vol 143, 5, Article No.: 04017054, 2017 0

135 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*, Vol. 350, Pg. 174-181, 2017 0

136 Isac L., Nicoara L., Panait R., **Duta A.**, Alumina matrix with controlled morphology for coloured spectrally selective coatings, *Environmental Engineering and Management Journal*, Vol. 16, 3, Pg. 715-724, 2017 0

137 Visa I., Moldovan M., Comsit M., **Duta A.**, Facades integrated solar-thermal collectors - challenges and solutions, *Energy Procedia*, Vol. 112, Pg. 176-185, 2017 0

138 Bogatu C., **Duta A.**, de Loos T., Modelling fluid phase equilibria in the binary system trifluoromethane+1-phenylpropane, *Fluid Phase Equilibria*, Vol 428, Special Issue: SI, Pg. 190-202, 2016 0

139 Ilie C. A., Visa I., **Duta A.**, Simulated thermal energy demand and actual energy consumption in refurbished and non-refurbished buildings, *IOP Conference Series-Materials Science and Engineering*, Vol. 147, Article Number: UNSP 012136, 2016 0

140 Visa I., **Duta A.**, Innovative Solutions for Solar Thermal Systems Implemented in Buildings, *Energy Procedia*, Vol. 85, Pg. 594-602, 2016 0

141 Andronic L., **Duta A.**, The influence of precursor's composition and concentration on cadmium doped TiO₂ film, *Central* 0

- 142 Popovici I., Perniu D., Isac L., **Duta A.**, Surfactant assisted control over morphology and surface properties of sprayed TiO₂ thin films, *Revue Roumaine de Chimie*, Vol. 56, 10-11, Pg. 1075-1080, 2011 0
- 143 Dudita M., Bogatu C., Enesca A., **Duta A.**, Thin films of SnO₂ obtained electrochemically from surfactants containing electrolytes, *Revue Roumaine de Chimie*, Vol. 56, 7, Pg. 717-723, 2011 0
- 144 Lucaci D., **Duta A.**, Adsorption of Methyl Orange From Wastewater Using Sawdust and Sawdust-Fly Ash Substrates, *Revista de Chimie*, Vol. 62, 7, Pg. 741-745, 2011 0
- 145 Sica M., Draghici C., **Duta A.**, Teodosiu C., Kinetic Study of Nitrite Removal from Municipal Wastewater Using Ion Exchange Resins, *Advanced Materials Research*, Vol. 287-290, Pg. 1513+, Part: 1-4, 2011 0
- 146 Visa I., Hermenean I., Diaconescu D., **Duta A.**, Azimuth Tracking Linkage Influence on the Efficiency of a Low CPV System, *Mechanisms and Machine Science*, Vol. 5, Pg. 157-164, 2010 0
- 147 Andronic L., Enesca A., Visa M., **Duta A.**, The Influence of Titanium Dioxide Phase Composition on Dyes Photocatalysis, *Proceedings of the 6th European meeting on solar chemistry & photocatalysis: Environmental applications*, Pg. 66-67, 2010 0
- 148 Andronic L., Isac L., **Duta A.**, Copper Sulphide-Based Photocatalyst for Dyes Degradation, *Proceedings of the 6th European meeting on solar chemistry & photocatalysis: Environmental applications*, Pg. 81-82, 2010 0
- 149 Enesca A., **Duta A.**, Tailoring the Photocatalytic Properties of SnO₂ Layer Obtained by SPD Technique, *Proceedings of the 6th European meeting on solar chemistry & photocatalysis: Environmental applications*, Pg. 85-86, 2010 0
- 150 Carcel R. A., Andronic L., **Duta A.**, Thin Films of TiO₂ and WO₃ for Dyes Photocatalysis, *Proceedings of The 6th European meeting on solar chemistry & photocatalysis: Environmental applications*, pg. 90-91, 2010 0
- 151 Visa M., Andronic L., **Duta A.**, Methyl Orange Degradation on Fly-Ash and Photo-Fenton Systems, *Proceedings of The 6th European meeting on solar chemistry & photocatalysis: Environmental applications*, Pg. 266-267, 2010 0
- 152 Enesca A., Andronic L., **Duta A.**, Influence of sodium ions (Na⁺) dopant on the efficiency of the tungsten trioxide photoelectrode, *Revue Roumaine de Chimie*, Vol. 55, 1, Pg. 11-15, 2010 0
- 153 Hermenean I., Visa I., **Duta A.**, Step motin law of a pseudo-equatorial open linkage used for a tracked CPV system, *6th International Symposium on Forming and Design in Mechanical Engineering*, pg. 327-332, 2010 0
- 154 **Duta A.**, Visa M., Manolache, S.A., Anatase (TiO₂) thin layers for solar energy conversion, *Proceedings of the 11th International Conference on Optimization of Electrical and Electronic Equipment*, Vol. II A and B, Pg. 461+, 2008 0
- 155 Manolache S. A., Isac L. A., **Duta A.**, Metal based sulfides, p-type semiconductors in solid state solar cells, 2007, *CAS International Semiconductor Conference*, Vols. 1 and 2 Pg. 141+, 2007 0
- 156 Enesca A., Andronic L., **Duta A.**, Investigation of WO₃ and TiO₂ thin films used in photocatalysis, *International Semiconductor Conference*, Vols. 1 and 2, pg. 241+, 2007 0
- 157 Perniu D., **Duta A.**, Schoonman, J., Defect chemistry of CuSbS₂, *CAS 2007 International Semiconductor Conference*, Vols. 1 and 2, Pg. 245+, 2007 0
- 158 Manolache S. A., **Duta A.**, The development of crystalline Sb₂S₃ thin films as buffer layer or as absorber material for three-dimensional (3d) solar cells, *CAS 2007 International Semiconductor Conference*, Vol. 1 and 2, pg. 373-376, 2007 0
- 159 Manolache S. A., Nanu M., **Duta A.**, Improvements in the quality of CuSbS₂ films used in solid state solar cells, *CAS 2005: International Semiconductor Conference*, Vol. 1 and 2, Pg. 145-148, 2005 0
- 160 **Duta A.**, Visa I., Manolache S., Nanostructured TiO₂ for solar energy conversion, *CAS 2005: International Semiconductor Conference*, Vols. 1 and 2, Pg. 267-270, 2005 0
- 161 Enesca A., **Duta A.**, Nanu M., Photoelectrode materials of tungsten oxide (WO₃) for water splitting, *CAS 2005: International Semiconductor Conference*, Vols. 1 and 2, pg. 293-296, 2005 0
- 162 Visa I., **Duta A.**, Exchange of Competencies on Renewable Energy Sources and Environment Management: ECO-RES & EM, 2nd Balkan Region Conference on Engineering Education, *Conference Proceedings: Bridges for cooperation in engineering education*, pg. 73-76, 2003 0
- 163 Duta A., **Visa I.**, Training the students for promoting and implementing renewable energy systems, 2nd Balkan Region Conference on Engineering Education, *Conference Proceedings: Bridges for cooperation in engineering education*, pg. 109-112, 2003 0
- 164 **Duta A.**, Geana D., The parameters of some cubic equations of state in the n-alkanes series, *Revue Roumaine de Chimie*, Vol. 47, 3-4, Pg. 373-378, 2002 0
- 165 **Duta A.**; Georgescu D.; Geana D., Liquid-vapour equilibrium in binary n-alkanes systems with size asymmetry, *Revue Roumaine de Chimie*, Vol 49, 6, Pg. 418-422, 1998 0
- 166 Capra AD, **Duta A.**, Perniu D, Modification of crystallinity in poly(vinyl alcohol) derivatives, *Materials Science Forum*, Vol. 278-2, Pg., 486-489, 1998 0
- 167 Perniu D., Duta, M., Catrinoi, D., Toader, C., Gosman, M., Ienei, E., **Duta A.**, ZnO Thin films deposited by spray pyrolysis deposition technique, *CAS: 2008 International Semiconductor Conference*, Vols. 1 and 2, pg. 279-282, DOI: 10.1109/SMICND.2008.4703402, 2008 0
- 168 Andronic L., **Duta A.**, The annealing temperature effect on the structural, optical and morphological properties of TiO₂ thin film, *Abstract of Papers of the American Chemical Society*, 235 Meeting Abstract: 439-PHYS, 2008 0

Domeniul: Materiale compozite din deseuri reciclate

Nr. Crt.	Articol	Nr. citari ISI
169	Cosnita M., Cazan C., Duta A. , Interfaces and mechanical properties of recycled rubber-polyethylene terephthalate-wood composites, <i>Journal of Composite Materials</i> , Vol. 48, 6, Pg. 683-694, 2014	4
170	Cazan C., Perniu D., Cosnita M., Duta A. , Polymeric wastes from automobiles as second raw materials for large scale products, <i>Environmental Engineering and Management Journal</i> , Vol. 12(8), pg.1649-1655, 2013	3
171	Cazan C., Cosnita M., Duta A. , Effect of PET functionalization in composites of rubber-PET-HDPE type, <i>Arabian Journal of Chemistry</i> , Vol. 10, 3, Pg. 300-312, 2017	3
172	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, <i>Journal of Cleaner Production</i> , Vol. 165, Pg. 630-636, 2017	0
173	Cosnita M., Cazan C., Duta A. , Effect of waste polyethylene terephthalate content on the durability and mechanical properties of composites with tire rubber matrix, <i>Journal of Composite Materials</i> , Vol. 51, 3, Pg. 357-372, 2017	0
174	Cosnita M., Cazan C., Visa M., Duta A. , <i>Quality and Innovation in engineering and management</i> , Pages: 253-256, 2011	0

3. Lucrari publicate in alte volume

1. Visa I., **Duta A.**, Neagoe M., Cercetare si educatie in domeniul sistemelor de energii regenerabile in cadrul Universitatii Transilvania din Brasov, Proceedings al celei de-a VIII-a conferinta ASTR, Brasov, „Produce si Tehnologii pentru Dezvoltare Durabila”, 2013, pg. 415-424
2. Comsit M., Visa I., **Duta A.**, Ciobanu D., Mechanisms for deployable stand-alone PV arrays, The 14th IFToMM World Congress, Taipei, Taiwan, October 25-30, 2015, DOI Number: 10.6567/IFToMM.14TH.WC.OS16.010
3. Visa I., **Duta A.**, Community company for sustainability – An innovative tool for implementing Renewables, *Lucrările celei de-a X-a ediții a Conferinței anuale a ASTR*, 2015, pg. 56-61
4. Visa I., **Duta A.**, Moldovan M., Burduhos B., Conceptual design of renewable-based energy mixes for sustainable communities, *Buletin AGIR*, 2015, pp. 117-127
5. Ilie A.C., Visa I., **Duta A.**, *Simulated thermal energy demand and actual energy consumption in refurbished and non-refurbished buildings*, *Materials Science and Engineering* 147, 2016, 012136 doi:10.1088/1757-899X/147/1/012136
6. Visa I., **Duta A.**, Moldovan M., Nearly Zero Energy Community - a transition concept towards sustainability, *Journal of Engineering Science and Innovation* (in press)

4. Brevete

4.1. Brevete acordate

1. Visa I., **Duta A.**, Vatasescu M., Saulescu R., *Colector solar-termic*, ID. 018891
2. Visa I., **Duta A.**, Diaconescu D., Negrea I., Totu I., Pop V., *Rotor de turbina eoliana*, RO125465(B1)
3. Visa I., **Duta A.**, Jaliu C., Enesca A., *Dispozitiv de producere a hidrogenului prin fotoelectroliza*, RO125540(B1)
4. Visa I., **Duta A.**, Totu I., *Colector solar-termic cu tuburi plate*, RO125994(B1)
5. Visa I., **Duta A.**, Lates R.S., Lates M., Totu I., Diaconescu D., *Colector solar-termic*, Certificate registration of the model no. RO201200009U1
6. Visa I., **Duta A.**, Diaconescu D., Vatasescu M., Hermenean I., Saulescu R.G., Velicu R.G., Totu I., *Steering Mechanism*, RO126334 (B1)
7. Visa I., **Duta A.**, Diaconescu D.V., Saulescu R., Vatasescu M., Burduhos B.G., Totu I., Creanga N., *Steering Mechanism*: RO126335-B1
8. Visa I., **Duta A.**, Diaconescu D., Saulescu R.G., Popa M.V., Burduhos B.G., *Guiding Mechanism*, RO125253(B1)
9. Dudita M., Bacanu G., Visa I., **Duta A.**, *Plita izoterma pe principiul tubului termic plat*, RO126412 (B1)

4.2. Propuneri de brevete aflate in evaluare

1. **Vișa I., Duță A., Neagoe M., Comșiț M., Moldovan M.D., Burduhos B.G., Sistem de panouri solare plane poligonale modularizate pentru integrare in fatade**, CBI A/00156/18.02.2013.
2. Visa I., Comsit M., **Duta A.**, Neagoe M., Saulescu R., Ciobanu D., Moldovan M., Burduhos B., Perniu D., Enesca A., Isac L., Ienei E., Mihoreanu C., Totu I., *Colector solar termic modular pentru optimizarea prin testare a eficientei conversiei si cresterea acceptantei arhitecturale*, CBI A00939/02.12.2014.
3. Visa I., **Duta A.**, Ciobanu D., Totu I., *Stand și metodă pentru testarea colectoarelor solar-termice plate în mediul salin*, CBI A/00493/10.07.2015
4. Visa I., Comsit M., **Duta A.**, Moldovan M., Totu I., *Tablou sinoptic cu colectoare solar-termice trapezoidale destinate integrării în mediul construit*, Cerere de Înregistrare a modelului nr. 7/0254 din 22 nov 2016
5. Visa I., **Duta A.**, Diaconescu D., Hermenean I., Saulescu R., Vatasescu M., Velicu R., Badea M., Totu I., *Mecanism de orientare articulată*, RO126149(A0)
6. Visa M., **Duta A.**, Mihaly M., Olteanu N.L., Andrei E., Petcu A.R., Marin A.C., Material compozit modificat cu nanoparticule de platina cu proprietati foto-oxidante extinse in domeniile ultraviolet si vizibil pentru degradarea poluantilor organici si procedeul de obtinere, Nr. A 2017 00760

5. Granturi și Contracte

5.1. Proiecte transnaționale de educație și de formare (in calitate de director de proiect sau responsabil al echipei din Universitatea Transilvania din Brasov)

1. *Quality improvement of the chemistry instruction using information and communication technologies*, CHEMINC - ERASMUS, COMENIUS pilot project, **2001 – 2003**, Director de proiect
2. *Training the students for Promoting and Implementing Renewable Energy Systems* – Leonardo da Vinci Students Mobility Project, RO/03/91181S, **2003 – 2005**, Director de proiect
3. *Language support to vocational education and training in Bulgarian, English, Spanish, Turkish and Romanian*, BEST, Leonardo Da Vinci pilot project, **2008 – 2011**, Resp. echipa Universitate
4. AUF mentor pentru stagii de programe doctorale (4) și post-doctorale (3), **2013 – 2018**

5.2. Participare in echipa de organizare si coordonare a granturilor de educatie si formare

1. *Renewable Energy Sources and Environment Management Friendly ICT Tools – RES&EM ICT Tools* – Leonardo da Vinci Pilot project RO/02/B/F/PP 141026, 2002 – 2005
2. *Exchange of Competencies on Renewable Energy Sources and Environment Management – ECO-RES&EM* – Leonardo da Vinci TS Exchange Project, RO/03/91183 EX, 2004-2005
3. *Sustainable Energy For High School Education - An European Training Tool, SEE – EU TOOL*, SOCRATES COMENIUS 2.1, 226362 – CP – 1 – 2005 – 1 – RO – COMENIUS- C21, 2005-2008

5.3. Cercetare stiintifica finanțată din fonduri internationale (in calitate de director de proiect sau responsabil al echipei din Univresitatea Transilvania din Brasov)

1. *Nanostructured layers of semiconductor oxides*, DCT AC/TTF2002, Research Agreement, TU Delft, The Netherlands, **2002 – 2004**, Responsabil Proiect
2. *Spray Deposition of Photoactive Materials in ETA Solar cells*, TNW 03.466, Research Agreement, TU DELFT, The Netherlands, **2004 – 2006**, Responsabil Proiect
3. *Development of a new technology for industrial production of absorber thin films in Solar Cells*, TNW AC/PPZ2005, TU DELFT, The Netherlands, **2005 – 2006**, Responsabil Proiect
4. *100% RES Communities*, Intelligent Energy for Europe, IEE/11/014/SI.2616363, **2013 – 2015**, Responsabil echipa Universitati Transilvania
5. *Ener2i*, INCO EC-FP7, (CO: ESEIA), **2014 – 2016**, Responsabil echipa Universitati Transilvania
6. *Horizon 2020 BioEnergyTrain - H2020-LCE-2014-2015/H2020-LCE-2014-2*, GA 656760, **2015-2018** (co-Responsabil echipa Universitatii Transilvania)
7. *Monitoring system for nitrates/nitrites and heavy metals from natural waters M-ERANET, WATER SAFE*, ctr. No 39/2016 (CO: Institutul de Chimie Fizica, Bucuresti), **2016-2018**, Responsabil echipa Universitati Transilvania

5.4. Granturi si proiecte din fonduri structurale

1. *Institut CDI: Produse High Tech pentru Dezvoltare Durabila*, 2009-2012, POS-CCE, Axa 2, O2.2.1 – Infrastructuri mari, Nr. 11/2009, ID 123, Membru al Comitetului de Management in calitate de Resp. Administrativ-financiar
2. *Scoala Doctorala pentru Dezvoltare Durabila*, 2008-2011, ID 6600, Membru al Comitetului de Management
3. *Scoala Doctorala pentru Energie Durabila*, 2009-2012, Membru al Comitetului de Management
4. *Calitate si expertiza in elaborarea si implementarea metodologiei de obtinere si testare de produse competitive prin formarea profesionala in cadrul unor noi programe de master cu impact major pe piata muncii*, 2010 – 2013, POSDRU/86/1.2/S/56711, ID 56711

5.5. Granturi si proiecte finantate la nivel national (in calitate de director de proiect sau responsabil al echipei din Univresitatea Transilvania din Brasov)

1. CNCSIS, No. A665, *Cercetari privind optimizarea procesului de obtinere a materialelor multifunctionale de TiO2 prin CVD utilizate in cellule solare si caracterizarea lor*, Director de grant, **2002-2004**
2. CEEX III-36, *Promovarea si sustinerea integrarii cercetarii romanesti in domeniul conversiei energiei din surse noi sau regenerabile in programul Platformei de Hidrogen si Pile de Combustie*, PRORES, Responsabilul echipei din Universitatea Transilvania (UTBv), **2006-2007**
3. CEEX M1, 226/2006, *Sistem integrat de conversie a energiei din surse regenerabile*, Resp. UTBv, 2006-2008
4. CEEX M1, 277/2006 *Materiale multi-funcționale pentru conversa energiei solare in energie termica*, (MATSOL-T), Director de grant, **2006-2008**
5. CEEX 69/2006 *Retea de cercetare si servicii pentru sinteza nanostructurilor cu aplicatii in produse avansate din industria textile, acoperiri protectoare si protectia mediului (SINAPS)*, Resp. echipa UTBv, **2006-2008**

6. CNCSIS, No. A400, *Cresterea eficientei conversiei in celule solare in stare solida*, Director de grant, **2006-2009**
7. CNCSIS Platforme, No. 79/2006, *Design de Prods pentru Dezvoltare Durabila*, Director stiintific, **2006 – 2009**
8. Program PNII Parteneriate 71-047/2007, *FOTOCOMPLEX –Sisteme fotocatalitice complexe pentru epurarea apelor reziduale rezultate din industria textila*, Director de grant, **2007-2010**
9. Program PNII Parteneriate,72-184/2008, *Noi concepte tehnologice pentru dezvoltarea unor nanomateriale cu impact scazut asupra mediului*, Resp. stiintific UTBv, **2008-2011**
10. Program PNII Parteneriate 162/2012, *Complex high surface area photoactive nano-materials for environmentally-friendly energy production and organic pollutants degradation NANOVISMAT*, Resp. UTBv, **2012 – 2015**
11. PN-III-P2-2.1-PED-2016-0514 *Demonstrator si tehnologie in flux continuu bazata pe reactor de fotocataliza si adsorbție in film subtire pentru epurarea avansata a apelor*, Director de grant, **2017-2018**
12. PN-III-P1-1.2-PCCDI2017-0619, *Materiale carbonice nanostructurate pentru aplicații industriale avansate*, Resp. echipa Universitatea Transilvania din Brasov, **2018-2020**

Membru in echipa a alte 25 de granturi cu finantare la nivel national.

5.6. Cercetare finanțată de catre companii si firme (director de contract)

1. *Servicii tehnologice – realizarea de filme de TiO2 si caracterizare*, ctr. Nr. 11980/2011, beneficiar Honeywell Romania
2. *Teste de microscopie electronica de baleaj, microscopie de forta atomica si testari mecanice pentru filme subtiri semiconductoare*, ctr. Nr. 18278/23.11.2012, beneficiar Universitatea Politehnica din Bucuresti, Centrul CPMTE
3. *Caracterizare elementala si incercari mecanice pentru mostre de zinc*, ctr. Nr. TBO071014-03/-7.10.2014, beneficiar SC ELDON SRL
4. *Caracterizare SEM/EDX a suprafetelor in coroziune accelerata pentru straturi de zincare*, ctr. Nr. 0097/186/14994696/16.10.2014, beneficiar INA Schaeffler, Romania