

Titlu proiect: Sustainable autonomous system for nitrites/nitrates and heavy metals monitoring of natural water sources

Categoria de proiect: M-ERA.NET Transnational Call 2014

Contractul de finanțare: 39/2016

Manager proiect: dr.Gartner Florica-Mariuca

Lista rezultate 2016-2018

Nr. crt.	NUME AUTORI	TITLUL ARTICOLULUI / CĂRȚII / COMUNICĂRII ȘTIINȚIFICE	REVISTA / VOLUMUL/EDITURA IN CARE A APARUT / CONFERINTA LA CARE S-A COMUNICAT	ANUL PUBLICAȚIEI / COMUNICĂRII
ARTICOLE ISI				
1	A. Duta, A. Enesca, L. Andronic,	The influence of low irradiance and electrolytes on the mineralization efficiency of organic pollutants using the Vis-active photocatalytic tandem CuInS ₂ /TiO ₂ /SnO ₂	<i>Catalysis Today</i> 300 (2018) 18-27	2018
2	M. Stoica, M. Anastasescu J.M. Calderon-Moreno, M. Nicolescu, P. Osiceanu, M. Covei (Duta) M. Modreanu M. Gartner	Transparent Sr doped Cu ₂ O as a new p-type material for photovoltaic applications	Rev. Roum. Chim 63(2018), 423-433	2018
Proceeding-uri CAS (International Semiconductor Conference)				
1	M. Covei, C. Bogatu, D. Perniu, S. Cisse, A. Duta	Comparative Study of the Electrical Properties of CZTS-TiO ₂ and CZTS-ZnO Heterojunctions for PV Applications	Proceedings of CAS 2018, pp.311-314	2018
2	M. Gartner, C. Lete, M. Chelu, H. Stroescu, M. Zaharescu, C. Moldovan, C. Brasoveanu, M. Gheorghe, S. Gheorghe, A. Duta, Z. Labadi, B. Kalas, A. Saftics, M. Fried, P. Petrik, E. Tóth, H. Jankovics, F. Vonderviszt	Electrochemical Sensors for Detection of Different Ionic Species (Nitrites/Nitrates and Heavy Metals) in Natural Water Sources	Proceedings of CAS) 2018, pp.329-332	2018
Capitole de carte				
1	M. Gartner, C. Moldovan, M. Gheorghe, A. Duta, M. Fried, F. Vonderviszt	Sustainable autonomous system for nitrites/nitrates and heavy metals monitoring of natural water sources (WaterSafe)	Proceedings of the Conference for Sustainable Energy (CSE) 2017, Nearly Zero Energy Communities, pg 513- 520, ISSN 2352-2534, ISSN 2352-2542 (electronic), Springer Proceedings in Energ, ISBN	2017

			978-3-319-63214-8, ISBN 978-3-319-63215-5 (eBook), DOI 10.1007/978-3-319-63215-5	
2	M. Covei, D. Perniu, C. Bogatu, A. Duta	ZnO thin films with controlled properties deposited by spray pyrolysis	NOVA Science Publishers In print	2018
COMUNICARI STIINTIFICE INTERNATIONALE				
1	M. Covei, C. Bogatu, D. Perniu, A. Duta,	Influence of the C12 surfactants concentration on the morphology of spray pyrolysis deposited ZnO,	12th International Conference on Colloid and Surface Chemistry, ICCSC'2016, Iasi, (abstract published in the Book of Abstracts, pg. 34, available at https://iccsc2016.files.wordpress.com/2016/01/book-of-abstracts.pdf)	2016
2	E. Țenea, C. Vladut, P. Chesler, S. Preda, J. M. Calderon-Moreno, M. Anastasescu, C. Moldovan, A. Voicu, M. Gartner, S. Mihaieu M. Zaharescu	Influence of the substrates on the sensing properties of the Zn-doped SnO2 thin sol-gel films	16th International Conference of Physical Chemistry - ROMPHYSICHEM -16th, September 21-23, 2016, Galați, Romania	2016
3	M. Fried	Bonding experiments of Flagellar Filaments on Gold surface	8th International Workshop "Sensors for nitrites/nitrates and heavy metals", Nov.15, 2016, Bucharest, http://www.icf.ro/elipso/2016/	2016
4	C. Moldovan	Design and Technology of Microtransducers for electrochemical detection of nitrites/nitrates and heavy metals		2016
5	M. Gheorghe	Light DSSC photovoltaic. Power sources for portable applications		2016
6	M. Zaharescu	TiO2 based sol-gel films for the detection of nitrites/nitrates in water sources		2016
7	M. Covei	The influence of the synthesis methods on the optoelectronic properties of thin ZnO films part of transparent photovoltaic structures		2016
8	A. Esca	Thin films semiconductors for novel solid state solar cells deposited by Spray Pyrolysis		2016
9	M. Chelu	Enhanced photocatalytic activity of ZnO nanoparticles obtained by "green" synthesis with well dispersed Pd-Au bimetallic nanoparticles		2016
10	J. Nador, B. Kalas, A. Saftics, L. Illes, C. Moldovan, M. Gartner, B. Kovacs, M. Fried, F. Vonderviszt, P. Petrik	Sensor surface preparation using genetically modified bacterial filaments	The 2017 E-MRS Fall Meeting September, 18 – 20, Warsaw. Poland	2017
11	M. Zaharescu	Nanostructured oxide photocatalyst and sensors for waste water treatment	Conference for Sustainable Energy, CSE, October 19-21, 2017, Brasov, Romania	2017
12	M. Gartner	Sustainable Autonomous System for Nitrites/Nitrates and Heavy Metals Monitoring of Natural Water Sources (WaterSafe)	Conference for Sustainable Energy, CSE, October 19-21, 2017, Brasov, Romania	2017

13	M. Gheorghe, S. Gheorghe	Planar and non-planar (cylindric) dye - sensitized solar cells; practical aspects	<i>The 17th National Conference of New and Renewable Energy Sources, 23 - 24 November 2017, Targoviste, Romania</i>	2017
14	C. Moldovan, M. Ion, S. Dinulescu, M. Savin, C. Brasoveanu, B. Firtat, M. Gartner, C. Lete, S. Mihaiu, M. Gheorghe, S. Gheorghe	New system for nitrites and nitrates detection from natural water sources	<i>BioCAS2018, Advanced system for Enhancing Human Health, IEEE Conference, Cleveland, SUA, 17-20 Oct. 2018</i>	2018
15	M. Chelu, C. Lete, J. M. Calderon Moreno, M. Gartner	Modified Electrodes with Poly(3,4-ethylenedioxythiophene)-copper nanocomposites: synthesis and applications for the nitrate detection	<i>PRIOCHEM XIV-2018, 10-12.10.2018, Bucuresti, Romania</i>	2018
16	M. Gartner, C. Lete, M. Chelu, A. Duta, H. Stroescu, M. Zaharescu, C. Moldovan, C. Brasoveanu, M. Gheorghe S. Gheorghe, Z. Labadi, B. Kalas, A. Saftics, M. Fried, P. Petrik, E. Tóth, H. Jankovics, F. Vonderviszt,	Electrochemical sensors for detection of different ionic species (nitrites/nitrates and heavy metals) in natural water sources	<i>International Semiconductor Conference, CAS, October 10-12, 2018, Sinaia, Romania</i>	2018
	C. Moldovan, S. Dinulescu, M. Ion, M. Savin, C. Brasoveanu B. Firtat, M. Gartner, C. Lete, S. Mihaiu, M. Gheorghe, S. Gheorghe	New system for nitrites and nitrates detection from natural water sources	<i>International Semiconductor Conference, CAS, October 10-12, 2018, Sinaia, Romania</i>	2018
18	A. Saftics, B. Kalas, J. Nador, A. Romanenko, É. Tóth, Z. Labadi, M. Gheorghe, L. Illes, B. Kovacs, P. Petrik C. Moldovan, M. Gartner, F. Vonderviszt, M. Fried,	Coatings for electronic water pollution sensors	<i>International Semiconductor Conference, CAS, October 10-12, 2018, Sinaia, Romania</i>	2018
19	M. Gheorghe, S. Gheorghe	Photovoltaic panel for portable applications	<i>International Semiconductor Conference, CAS, October 10-12, 2018, Sinaia, Romania</i>	2018
20	C. Lete, M. Gheorghe, M. Chelu, M. Marin, M. Gartner	Electrochemical sensors based on poly(3,4-ethylene dioxythiophene)-copper nanocomposite and Au-Pt alloy for NO ₃ ⁻ /NO ₂ ⁻ determination	<i>69th Annual ISE Meeting, Sept, 2-7 2018, Bologna, Italy</i>	2018
21	A. Saftics, B. Kalas, J. Nador, B. Kovacs, A. Romanenko, Z. Labadi, M. Gheorghe, L. Illes, C. Moldovan, M. Gartner, S. Kurunczi, R. Horvath, F. Vonderviszt, P. Petrik M. Fried,	Coatings for electronic water pollution sensors	<i>E-MRS Spring Meeting, June 18-22, 2018, Strasbourg, France</i>	2018
22	M. Gartner, S. Mihaiu, C. Vladut, P. Chesler, J. Calderon, S. Preda, M. Anastasescu H. Stroescu, M. Nicolescu, M. Stoica, E. Tenea, C. Moldovan, I. Stan, M. Gheorghe, M. Covei, A. Duta, M. Zaharescu	The role of dopants in ZnO Nanorods for Energy and Environment	<i>6th World Congress and Expo on Nanotechnology And Materials Science, April 16-18, 2018, Valencia, Spain</i>	2018
23	H. Stroescu, M. Anastasescu, J. M. Calderon-Moreno, S. Preda,	New oxidic films for photovoltaic cells	<i>6th World Congress and Expo on Nanotechnology And Materials Science, April 16-18, 2018, Valencia, Spain</i>	

	L. Predoana , M. Zaharescu, M. Gartner			
ALTE rezultate				
1	Organizare workshop	Multifunctional materials for sensing and renewable energy applications: Sensors for nitrites/nitrates and heavy metals	In ICF http://www.icf.ro/elipso/2016/	2016
2	Organizare workshop	Multifunctional materials for sensing and renewable energy applications: Sensors for nitrites/nitrates and heavy metals	in cadrul Conference for Sustainable Energy, CSE 19 Octombrie 2017, Brasov, Romania, http://www.unitbv.ro/cse/Home.aspx	2017
3	Organizare workshop	Multifunctional materials for sensing and renewable energy applications: Sensors for nitrites/nitrates and heavy metals	In cadrul Conf CAS, 10-12.10.2018, Sinaia, Romania	2018
4	Teza de doctorat realizata in domeniul proiectului	Sustinere teza	Drd. Judit Nádor (2017) <i>Titlul tezei:</i> Proteins, polymers and living cells on titanium oxide-based nanostructured coatings: exploitation of label-free optical sensing methods <i>Scoala doctorala:</i> Doctoral School of Molecular and Nanotechnologies University of Pannonia, <i>Conducatori de doctorat:</i> Róbert Horváth and Péter Petrik	2017
5	Teza de doctorat realizata in domeniul proiectului	Sustinere teza	Drd. Andras Saftics <i>Titlul tezei:</i> Development of dextran-based hydrogel layers for biosensor applications <i>Scoala doctorala:</i> George A. Olah Doctoral School, Budapest University of Technology and Economics <i>Conducator de doctorat:</i> Dr. Sándor Kurunczi <i>Data sustinerii tezei:</i> 15 Decembrie 2018	2018
6	Teza de doctorat realizata in domeniul proiectului	Sustinere teza	Drd. Mariana Chelu <i>Titlul tezei:</i> Corelații între proprietățile optice ale catalizatorilor și activitatea lor fotocatalitică <i>Scoala doctorala:</i> Institutul de Chimie Fizica, Academia Romana <i>Conducator de doctorat:</i> Dr. Mariuca Gartner <i>Data sustinerii tezei:</i> 2019	2019

Lista achizițiilor realizate în cadrul proiectului

Denumire echipament	Categorie de achiziții*: (numai mijloace fixe)	Valoarea (lei)	Locație
Spin coater	Directa/2016	39.048	Cam. 135
Autoclava	Directa/2016	8.100	Cam. 135
Dell Precision Tower 3620XCTO BASE, Intel Core i7-7700,16GB RAM(2x8GB)2400MHz,256GB SSD Class20,2 TB HDD 7200 RPM,Sursa 365W 90%EFF, Windows 10Pro, 3 ani garantie cu ProSupport si KYHDD	Directa/2017	1,182.99	Cam.134

**Director proiect,
Dr.Gartner Florica-Mariuca**