

Titlu proiect: Design/sinteza de nanooxizi prin metode prietenoase mediului: controlul marimii, forme, morfologiei si functionalizarii oxidului de zinc obtinut prin sinteze asistate de polizaharide

Categoria de proiect: IDEI, Proiect de cercetare exploratorie

Contractul de finanțare: NR. 17 /2011

Manager proiect: Dr. Oana Carp

Lista rezultate

Nr. crt.	NUME AUTORI	TITLUL ARTICOLULUI / CĂRȚII / COMUNICĂRII ȘTIINȚIFICE	REVISTA / VOLUMUL/EDITURA IN CARE A APARUT / CONFERINTA LA CARE S-A COMUNICAT	ANUL PUBLICĂRII/ COMUNICĂRII
ARTICOLE ISI				
1	G. Patrinoiu, M. Tudose, J. M. Calderon-Moreno, R. Birjega, P. Budruga, R. Ene, O. Carp	<i>A green chemical approach to the synthesis of photoluminescent ZnO hollow spheres with enhanced photocatalytic properties</i>	<i>J. of Solid State Chem.</i> 186, 17-22	2012
2	Greta Patrinoiu, Jose Maria Calderón-Moreno, Daniela C. Culita, Ruxandra Birjega, Ramona Ene, Oana Carp	<i>Carbonaceous spheres-an unusual template for solid metal oxide mesoscale spheres: Application to ZnO spheres</i>	<i>Journal of Solid State Chemistry</i> , 202, 291-299	2013
3	Greta Patrinoiu, Jose Maria Calderón-Moreno, Daniela C. Culita, Ruxandra Birjega, Ramona Ene, Oana Carp	<i>Eco-friendly synthetic route for layered zinc compound and its conversion to ZnO with photocatalytic properties</i>	<i>Solid State Science</i> 23, 58-64.	2013
4	Bogdan Jurca, Alina Tirsoaga, Adelina Ianculescu, Oana Carp	<i>Influence of the synthesis parameters on the thermal behaviour of some ZnO-starch composites</i>	<i>Journal of Thermal Analysis and Calorimetry</i> , 115 (1), 495-450	2014
5	Greta Patrinoiu, Jose Maria Calderon-Moreno, Simona Somacescu, Nicolae Spataru, Adina M. Musuc, Ramona Ene, Ruxandra Birjega, and Oana Carp	<i>Carbonaceous spheres: versatile intermediary of metal oxide spherical structures synthesis</i>	<i>European Journal of Inorganic Chemistry</i> , 1010-1019	2014
6	Adina Magdalena Musuc, Raluca Dumitru, Alina Stan, Cornel Munteanu, Ruxandra Birjega and Oana Carp	<i>Synthesis, characterization and thermoreactivity of some methylcellulose-zinc composites</i>	<i>Journal of Thermal Analysis and Calorimetry</i> , 120 (1) 30, 85-94	2015
7	Oana Carp, Alina Tarsoaga, Ramona Ene, Simona Somacescu, Daniela C. Culita,	<i>Biopolymer starch mediated synthetic route of multi-spheres and donut ZnO structures</i>	<i>Carbohydrate Polymer</i> , 115 (22), 285-293	2015

	Adelina Ianculescu			
8	Alina Stan, Cornel Munteanu, Ramona Ene, Elena Maria Anghel, Adina Magdalena Musuc, Ruxandra Birjega, Adelina Ianculescu, Iulia Raut, Luiza Jecu, Mihaela Badea Doni, and Oana Carp	<i>A general, eco-friendly synthesis procedure of self-assembled ZnO-based materials with multifunctional properties</i>	<i>Dalton Transactions</i> , 44, 7844–7853	2015
9	Greta Patrinoiu, Jose Maria Calderon Moreno, Ruxandra Birjega and Oana Carp	<i>Solid vs. hollow oxide spheres obtained by hydrothermal carbonization of various types of carbohydrates</i>	<i>RSC Adv.</i> , 5, 31768–31771	2015
10	D. Visinescu, M. Scurtu, R. Negrea, R. Birjega, D. C. Culita, M. C. Chifiriuc, C. Draghici, J.M. Calderon Moreno, A. M. Musuc, I. Balint, O. Carp	<i>Additive-free 1,4-butanediol mediated synthesis: a suitable route to obtain nanostructured, mesoporous spherical zinc oxide materials with multifunctional properties</i>	<i>RSC Adv.</i> , 5 (121), 99976-99989	2015
11	G. Patrinoiu, J. M. Calderón-Moreno, C. M. Chifiriuc, C. Saviuc, R. Birjega, O. Carp	<i>Tunable ZnO spheres with high anti-biofilm and antibacterial activity via a simple green hydrothermal route</i>	<i>Journal of Colloid and Interface Science</i> , , 462, 64-74	2016
12	G. Patrinoiu, J. M. Calderon-Moreno, R. Birjega, D. C. Culita, S. Somacescu, A. M. Musuc, T. Spataru, O. Carp	<i>Sustainable one-pot integration of ZnO nanoparticles into carbon spheres: morphology, optical and electrochemical properties manipulation</i>	<i>Phys.Chem.Chem.Phys.</i> , , 18, 30794-30807	2016
		ARTICOLE ALTE BAZE DE DATE		
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		CARTI		
1	Diana Visinescu, Greta Patrinoiu, Alina Tirsoaga, Oana Carp	Book Chapter- Polysaccharides route: a new green strategy for metal oxides synthesis	In “Environmental Chemistry for Sustainable World”, Eds: E. Lichtfouse, J. Scharzbauer, D. Roberts, Vol I. Nanotechnology and Health Risk, Springer, 2012, pp.119-172, ISBN 978-94-007-2441-9	2012
	Petru Budrugaec, Oana Carp, Nicolae Docă, Crișan Popescu, Titus Vlase, Eugen Segal	THERMAL ANALYSIS. FUNDAMENTS AND APPLICATIONS Kinetic Analysis of Heterogenous Transformation	Book: Romanian Academy Publishing House 2013 ISBN 978-973-27-2281-7	2013
n	Oana Carp	Book chapter- Materials Obtained by Solid-State Thermal Decomposition of Coordination Compounds	<i>In “Reactions and Mechanisms in Thermal Analysis of Advanced Materials”</i> , Eds: Atul Tiwari, Baldev Raj, Wiley,	2015

		and Metal–Organic Coordination Polymers 63	2015 , pp: 63-85, ISBN: 978-1-119-11757-5	
	Petru Budrugaec, Oana Carp, Oana Mocioiu, Dumitru Oancea, Maria Zaharescu	THERMAL ANALYSIS. FUNDAMENTS AND APPLICATIONS	Book: Romanian Academy Publishing House 2016 ISBN 978-973-27-2661-7	
	COMUNICARI STIINTIFICE NATIONALE			
1	Alina Stan, Adina Musuc, Adelina Ianculescu, Oana Carp	Carbohydrates-assisted synthetic routes of ZnO	ROMPHYSICHEM 15, Bucuresti	9-11 septembrie 2013
	Alina Stan, Adelina Ianculescu, Adina Musuc, Oana Carp	ZnO obtained by methyl cellulose-mediated synthesis	ROMPHYSICHEM 15, Bucuresti	9-11 septembrie 2013
	Adina Magdalena Musuc, Alina Stan, Adelina C. Ianculescu, Raluca Dumitru, Oana Carp	The thermal reactivity of some ZnO-methylcellulose composites	ROMPHYSICHEM 15, Bucuresti	9-11 septembrie 2013
	Diana Visinescu, Oana Carp, Raluca Negrea, Ruxandra Birjega, Jose Calderon Moreno, Mariana Scurtu, Ioan Balint	ZnO nanocrystal clusters: polyol-assisted synthesis, optical and catalytic properties	ROMPHYSICHEM 15, Bucuresti	9-11 septembrie 2013
	<i>Greta M. Socoteanu, Jose M. Calderón-Moreno, Ruxandra Birjega, Daniela C. Culita, Simona Somacescu, Adina M. Musuc, Raluca Ene, Oana Carp,</i>	Starch-derived Carbonaceous Spheres - Versatile Templates for Spherical Structures, ROMPHYSICHEM 15, Bucuresti, 9-11 septembrie 2013	ROMPHYSICHEM 15, Bucuresti	9-11 septembrie 2013
	<i>Oana Carp, Greta M. Patrinoiu, Alina Stan, Ruxandra Birjega, Jose Calderon Moreno, Nicolae Spataru, Adelina Ianculescu,</i>	Sinteze ale materialelor oxidice mediate de zaharide	Zilele Academice Iesene, Iasi	3-5 octombrie, 2013
	O. Carp	Spherical metal oxides structures obtained by saccharide-assited synthetic routes	7th Edition of symposium with international participation-New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, Institutul de Chimie Timisoara	5-6.06 2014
	O. Carp	Saccharides-assisted synthetic routes of ZnO nanostructures	Journée Franco-Roumaine, Brasov.	15 iunie 2014
	O. Carp	Metallic oxides with spherical morphology obtained by green approaches	Conferința Școlilor Doctorale din UDJG, CSSD-UDJG 2015”, Universitatea "Dunarea de Jos ",Galati	4-5.06 2015
n	P. Cucos, A. Stan, C. D. Ene, A. Cucos, J. M. Calderon-Moreno, D. Culita, R. Birjega, C. Chifiriuc, O. Carp,	<i>Novel ZnO composites synthesized via polysaccharides-assisted methods</i>	Romphyschem 16, Galati, Romania.	21-24 septembrie 2016
	P. Cucos, C. D. Ene, J. M. Calderon-Moreno, A. Cucos, D. Culita, O. Carp	<i>ZnO and ZnO-carbon composites obtained through alginate gel template methods,</i>	Romphyschem 16, Galati, Romania.	21-24 septembrie 2016

	D. Vişinescu, O. Carp, R. Negrea, R. Birjega, C. Chifiriuc and I. Balint	<i>Polyol-assisted synthesis of spherical zinc oxide aggregates with multifunctional properties,</i>	Romphyschem 16, Galati, Romania.	21-24 septembrie 2016
	O. Carp	Polysaccharide assisted synthesis: a resourceful route toward versatile multifunctional materials	Noi tendințe și strategii în chimia materialelor avansate, cu relevanță în sisteme biologice, tehnică și protecția mediului, Editia a 9-a, Timișoara	09-10 iunie 2016
COMUNICARI STIINTIFICE INTERNATIONALE				
1	Greta M. Socoteanu, Madalina Tudose, Jose M. Calderón-Moreno, Ruxandra Birjega, Oana Carp	<i>Old Starch: New Approaches on Synthesis of ZnO with Spherical Structures</i>	26 th International Carbohydrate Symposium (ICS2012), 22 - 27 iulie, Madrid	2012
2	Raluca Dumitru, Jose Calderon-Moreno, Ruxandra Barjega, Oana Carp	<i>Zinc oxide controlled biopolymer assisted synthetic route</i>	4th EuCheMS Chemistry Congress, 26-30 august, Praga	2012
3	Greta Socoteanu, Madalina Tudose, Jose Maria Calderón-Moreno, Ruxandra Birjega, Oana Carp	<i>From Layered Basic Zinc Salts to ZnO Hollow Spheres by an Eco-Friendly Sonochemical Procedure</i>	4th EuCheMS Chemistry Congress, 26-30 august, Praga	2012
4	Oana Carp, Greta Patrinoiu, Adelina Tarsoaga, Ruxandra Barjega, Jose Calderon Moreno, Adelina Ianculescu	<i>Photoluminescent and photocatalytic properties of different ZnO morphologies controlled by biopolymer assisted routes</i>	Structure-Property Relationships in Solid State Materials Conference, 24-29 iunie, Bordeaux	2012
5	Oana Carp, Alina Tirsoaga, Paul Chessler, Viorica Pirvulescu, Adelina Ianculescu, Raluca Damian	<i>Ultrasound assisted synthesis of zno flower-like structures and their photoluminescence and photocatalytic properties</i>	XI International Conference on Nanostructured Materials, 26-31 august, Rhodos	2012
6	Adina Magdalena Musuc, Alina Stan, Raluca Dumitru, Adelina Ianculescu, Oana Carp	<i>Synthesis, characterization and thermal behaviour of some ZnO – methylcellulose composites</i>	2 nd Central and European Conference on Thermal Analysis and Calorimetry, 27-30 august, Vilnius, Lituania	2013
7	Oana Carp, Alina Tarsoaga, Adelina Ianculescu, Bogdan Jurca, Ramona Ene	<i>ZnO obtained by a ultrasound-assisted method in the presence of starch</i>	Sustainable Chemical Summit, 5-7 iunie, Montreal, Canada	2013
8	Oana Carp, Greta Patrinoiu, Jose Calderon Moreno, Adina Musuc, Simona Somacescu, Ruxandra Barjega, Nicolae Spataru,	<i>Versatile metal spherical structure via carbonaceous templates</i>	“Forth International Congress on Grenn Chemistry”, Sevilla, Spania.	7 – 10 aprilie 2014
9	O. Carp, A. Stan, C. Munteanu, P. Cucos, C. Ene, S. Birjega, C. Chifiriuc, D. Culita	<i>A general, environmentally synthesis procedure of self-assembled ZnO-based materials with multifunctional properties</i>	International symposium on “Structure Property relationship in Solid State Materials”, Nantes, Franta	1-6.06.2016
10	P. Cucos, J.M. Calderon-Moreno, O. Carp, C. Ene, D. Culita, A. Cucos	<i>Thermal behaviour of some Mn+-alginate gels precursors of metal oxides and metal oxide-carbon composites</i>	XV Russian and International Conference on Thermal Analysis and Calorimetry (RTAC-2016), Sankt-Petersburg, Rusia.	19-23.09.2016
11	G. Patrinoiu, J. M.	<i>Tunable ZnO spheres via a</i>	6th International IUPAC	4-8.09.2016

	Calderón-Moreno, C. M. Chifiriuc, C. Saviuc, R. Birjega, O. Carp	<i>simple starch assisted hydrothermal route</i>	Conference On Green Chemistry, Venice, Italia	
	ATLASE, DICTIONARE DE SPECIALITATE			
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	CERERI BREVET DE INVENTII/BREVET OBTINUT			
	Oana Carp, Diana Beatrice Visinescu, Greta Mihaela Socoteanu, Alina Jurca, Madalina Tudose, Bogdan Jurca, Claudiu Octavian Mazilu, Carmen Stefanescu, Andrei Cucos, Petru Budrugaec, Adelina-Carmen Ianculescu	<i>Procedeu de obtinere a unor oxizi metalici complexi</i>	Brevet Inventie Obtinut Nr. 126757/30.07.2013	2013
	Diana Vişinescu, Paula Cucos, Jose M. Calderon Moreno, Greta Socoteanu, Adina M. Musuc, Daniela Culiță, Cristian D. Ene, Carmen Chifiriuc, Diana Pelinescu, Veronica Lazăr, Oana Carp	<i>Procedeu de obtinere a unor compozite Oxid de Zinc-Carbohidrat, Oxid de Zinc-Poliol si Oxid de Zinc cu proprietati bacteriostatice si bactericide</i>	Cerere Brevet Inventie Nr. 201600422/10.06.2016	2016
		ALTE rezultate		
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Lista achizițiilor realizate în cadrul proiectului

Denumire echipament	Categorie de achiziții*: (numai mijloace fixe)	Valoarea (lei)	Locație
STA 449 F1 Jupiter Simultaneous Thermal Analyzer (TG-DSC/DTA Apparatus) (Avans 30%)	Imobilizari corporale/accesorii echipamente	80 535	Institutul de Chimie Fizica I. Murgulescu
STA 449 F1 Jupiter Simultaneous Thermal Analyzer (TG-DSC/DTA Apparatus)	Imobilizari corporale/accesorii echipamente	187 638.52	Institutul de Chimie Fizica I. Murgulescu
STA 449 F1 Jupiter Simultaneous Thermal Analyzer (TG-DSC/DTA Apparatus)(ultima transa)	Imobilizari corporale/accesorii echipamente	44.401,73	Institutul de Chimie Fizica I. Murgulescu
Pompa vid pentru aparatul de analiza termica STA449F1 Jupiter	Imobilizari corporale/accesorii echipamente	17.451,11	Institutul de Chimie Fizica I. Murgulescu
Sistem Desktop All-in-One HP ENVY 27 cu procesor Intel® Core™ i7-4790T, 2.70GHz, Haswell™, Touchscreen 8GB, 1TB, nVidia GeForce GT 730A 1GB, Microsoft Windows 8.1	Imobilizari corporale/accesorii echipamente	6.965,68	Institutul de Chimie Fizica I. Murgulescu
Microsoft Office Home and Business 2013, 32-bit/x64, English	Imobilizari corporale/accesorii echipamente	1.129,99	Institutul de Chimie Fizica I. Murgulescu
Bitdefender Antivirus Plus 2015, Retail Renewal, 1 an, 1 utilizator	Imobilizari corporale/accesorii	74,99	Institutul de Chimie Fizica I. Murgulescu

Denumire echipament	Categorie de achiziții*: (numai mijloace fixe)	Valoarea (lei)	Locație
	echipamente		
Monitor LED Asus 21.5", Wide, Full HD, Negru, VE228DE	Imobilizari corporale/accesorii echipamente	461,09	Institutul de Chimie Fizica I. Murgulescu
Mouse wireless Microsoft mobile 3500	Imobilizari corporale/accesorii echipamente	129,90	Institutul de Chimie Fizica I. Murgulescu
Centrifuga Universal 320 clasica	Imobilizari corporale/accesorii echipamente	16.468,11	Institutul de Chimie Fizica I. Murgulescu
DVD Writer Ext. Samsung SE-208GB/RSLD	Imobilizari corporale/accesorii echipamente	142,98	Institutul de Chimie Fizica I. Murgulescu
Sistem Desktop PC Dell Optiplex 3020 cu procesor Intel Core i5-4590 3.30GHz, 2 buc	Imobilizari corporale/accesorii echipamente	5.775,98	Institutul de Chimie Fizica I. Murgulescu
Monitor LED IPS LG 21.5", wide, full HD, VGA Negru, 22MP47D_P	Imobilizari corporale/accesorii echipamente	499,99	Institutul de Chimie Fizica I. Murgulescu
Sistem Desktop PC Dell OptiPlex 3020 SFF cu procesor Intel core i5-4590 3.3GHz+Tastatura, 2 buc	Imobilizari corporale/accesorii echipamente	5.099,98	Institutul de Chimie Fizica I. Murgulescu
Adaptor wireless ASUS USB-N10 Nano, 150Mbps, 2 buc	Imobilizari corporale/accesorii echipamente	99,98	Institutul de Chimie Fizica I. Murgulescu
HP Printhead 4 INK CN643A	Imobilizari corporale/accesorii echipamente	321,82	Institutul de Chimie Fizica I. Murgulescu
Multipack HP 920XL	Imobilizari corporale/accesorii echipamente	273,00	Institutul de Chimie Fizica I. Murgulescu
Program licenta Match	Imobilizari corporale/accesorii echipamente	5.476,06	Institutul de Chimie Fizica I. Murgulescu
Kaspersky Anti-virus 2016, 2 utilizatori , 1 an	Imobilizari corporale/accesorii echipamente	79,99	Institutul de Chimie Fizica I. Murgulescu

Director proiect,

Dr. Oana Carp