

## LISTA DE LUCRĂRI

Conf. Dr. Chim. Lacatusu Ioana

### I. TEZA DE DOCTORAT

**T1.** *Colectori multipolari de tip oxima utilizati in flotatia ionica*, coordonator Prof. dr. Ligia Stoica, Dr. Chim./din Iulie 2006

### II. BREVETE DE INVENȚIE

**B1.** Meghea A., **Lacatusu I.**, Badea N., Pop R.M., Iosub I., „*Procedeu de obtinere a unor nanomateriale hibride pe baza de silice si nanomateriale cu principii active naturale astfel obtinute*”, Brevet Nr. RO123252-B1, Publ. date 29.04.2011.

**B2.** **Lacatusu I.**, Badea N., Stan R., Hanganu A., Meghea A., “*Nanoparticule lipidice antioxidante si procedeu de obtinere a acestora*”, Brevet Nr. RO128703, Publ. date 30.05.2018.

**B3.** Badea G., **Lacatusu I.**, Badea N., Stan R., Meghea A., *Nanotransportori lipidici pe baza de uleiuri vegetale cu proprietati antioxidante si fotoprotective*, Brevet Nr. RO130098, Publ. date 29.11.2018.

**B4.** **Lacatusu I.**, Badea N., Badea G., Ott C., Stan R., Istrati D., Popa O., Meghea A., *Nanotransportori pe bază de squalen vegetal ce pot co-incapsula medicamente lipofile si hidrofile*, cerere de brevet A/00391/2015.

**B5.** **Lăcătușu I.**, Badea N., Badea G., Moldovan L., Panteli I.M., Rașit I., Popescu M., Bordei N., Stan R., Istrati D., Meghea A., *Nanotransportori lipidici incarcati cu principii active vegetale si sintetice ce furnizeaza un efect anti-inflamator amplificat*, cerere de brevet A 00672/23.09.2016.

### III. CARTI, INDRUMARE DE LABORATOR SI CAPITOLE DE CARTE

**C1** Stoica L., Coșmeleață R., **Lacatusu I.**, *Biochimie pentru inginerie medicală*, 2005, Ed. Printech, 286 p., ISBN 973-718-169-7;

**C2.** Meghea A., **Lacatusu I.**, Badea N., Nita R., Murariu A., *Sinteza dirijată de nanostructuri pentru materiale cu proprietăți multifuncționale. Sisteme organizate nanostructurate*, Ed. Politehnica Press, 514 p., 2009, ISBN 978-606-515-048-5;

**C3.** Meghea I., **Lacatusu I.**, Mihai M., Popa I., *Monitorizarea si statistica poluantilor atmosferici*, 326 p., 2010, ISBN 978-606-515-088-1;

**C4.** Badea N., Băbeanu N.E., Bătrînescu G., **Lăcătușu I.**, Lehr Blaziu C., Marin D.I., Niță S., Pascu L.F., Popa O., *Scualena: surse, obtinere, proprietati*, Rawex Coms, Bucuresti 2016, 194 pag. ISSN 978-606-762-080-1.

**I1.** Stoica L., Constantin C., **Lacatusu I.**, Irimia A., *Chimia Elementelor. Lucrari practice I*, **2005**, Ed. Printech, 116p, ISBN 973-652-657-7;

**I2.** Stoica L., Constantin C., **Lacatusu I.**, Razvan A., Irimia A., *Chimia Elementelor. Lucrari practice II*, **2006**, Ed. Printech, 156p, ISBN 973-652-657-7.

**D1.** **Lacatusu I.**, Badea N., Meghea A. "Nanoencapsulation of natural products with multifunctional properties in silica and hybrid organic – silica host matrices" publicat in "Biocompatible Nanomaterials: Synthesis, Characterization and Application in Analytical Chemistry", Editor Sea-Fue Wang, Nova Publisher, ISBN 978-1-61668-677-2, **2010**, p. 41-115.

#### **IV. ARTICOLE IN EXTENSO PUBLICATE IN REVISTE DIN FLUXUL STIINTIFIC INTERNATIONAL**

##### **A. Reviste de specialitate de circulatie internatională indexate ISI Thomson Reuters (Ris)**

**Ris 1.** **Lacatusu I.**, N. Badea N., Udeanu D., Coc L., Pop A., Cioates Negut C., Tanase C., Stan R., Meghea A. Improved anti-obesity effect of herbal active and endogenous lipids co-loaded lipid nanocarriers: Preparation, in vitro and in vivo evaluation, *Materials Science and Engineering C*, **2019**, 99, 12-24, FI/2018 = 5.080, ISSN 09284931, WOS:000463121200002.

**Ris 2.** **Lacatusu I.**, Badea N., Badea G., Mihaila M., Ott C., Stan R., Meghea A., Advanced bioactive lipid nanocarriers loaded with natural and synthetic anti-inflammatory actives, *Chemical Engineering Science*, **2019**, 200, 113-126, FI/2018 = 3.306, ISSN 00092509, WOS:000461418000011.

**Ris 3.** **Lacatusu I.**, Arsenie L.V., Popa O., Ovidiu Oprea, Badea N.\*, New cosmetic formulations with broad photoprotective and antioxidative activities designed by amaranth and pumpkin seed oils nanocarriers, *Industrial Crops and Products*, **2018**, 123, 424-433, FI/2018 = 3.849, ISSN 09266690, WOS:000447103900048.

**Ris 4.** **Lacatusu I.**, Badea G., Popescu M., Bordei N., Istrati D., Moldovan L., Seciu A.M., Pandeli M.I., Rasit I., Badea N., Marigold extract, azelaic acid and black caraway oil into lipid nanocarriers provides a strong anti-inflammatory effect *in vivo*, *Industrial Crops and Products*, **2017**, 109, 141-150, FI/2018 = 3.849, ISSN 09266690, WOS: 000413880300018.

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**Ris 6.** **Lacatusu I.**, Badea N.\*, Badea G., Brasoveanu L., Stan R., Ott C., Oprea O. and Meghea A., Ivy leaves extract based – lipid nanocarriers and their bioefficacy on antioxidant and antitumor activities, *RSC Advances*, **2016**, 6, 77243-77255, FI/2018 = 3.108, ISSN 2046-2069, WOS:000382482200015, DOI: 10.1039/c6ra12016d.

**Ris 7.** Istrati D., **Lacatusu I.**, Bordei N., Badea G., Oprea O., Stefan L.M., Stan R., Badea N.\*, Meghea A., Phyto-mediated nanostructured carriers based on dual vegetable actives involved in the prevention of cellular damage, *Materials Science and Engineering C*, **2016**, 64, 249-259, FI/2018 = 5.080, ISSN 09284931, WOS:000376547700030.

**Ris 8.** Ott C., **Lacatusu I.**, Badea G., Grafu I.A. Istrati D. Babeanu N., Stan R., Badea N.\*, Meghea A. Exploitation of amaranth oil fractions enriched in squalene for dual delivery of hydrophilic and lipophilic actives, *Industrial Crops and Products*, **2015**, 77, 342-352,

FI/2018 = 3.849, ISSN 09266690, WOS:000366065200041, DOI: 10.1016/j.indcrop.2015.08.057.

- Ris 9. Lacatusu I.,** Badea N., Badea G., Oprea O., Mihaila M.A., Kaya D.A., Stan R.\*, Meghea A., Lipid nanocarriers based on natural oils with high activity against oxygen free radicals and tumor cell proliferation, *Materials Science and Engineering C*, **2015**, 56, 88-94, FI/2018 = 5.080, ISSN 09284931, WOS:000359873900011, DOI: 10.1016/j.msec.2015.06.019.
- Ris 10.** Badea G., **Lacatusu I.\***, Ott C., Badea N., Grafu I., Meghea A., Integrative approach in prevention and therapy of basal cellular carcinoma by association of three actives loaded into lipid nanocarriers, *J. of Photochemistry and Photobiology B: Biology*, **2015**, 147, 1-8, FI/2018 = 3.165, ISSN 10111344, WOS:000354156000001, DOI: 10.1016/j.jphotobiol.2015.03.007
- Ris 11.** Badea G., **Lăcătușu I.\***, Badea N., Ott C., Meghea A. Use of various vegetable oils in designing photoprotective nanostructured formulations for UV protection and antioxidant activity, *Industrial Crops and Products*, **2015**, 67, 18-24, FI/2018 = 3.849, ISSN 09266690, WOS:000352039600004, DOI: 10.1016/j.indcrop.2014.12.049.
- Ris 12.** Badea G., Bors A.G., **Lacatusu I.**, Oprea O., Ungureanu C., Stan R.\*, Meghea A., Influence of basil oil extract on the antioxidant and antifungal activities of nanostructured carriers loaded with nystatin, *Comptes Rendus Chimie*, **2015**, 18(6), 668-677, FI/2018 = 1.877, ISSN 16310748, WOS:000357703400012, DOI: 10.1016/j.crci.2014.09.012.
- Ris 13.** Mitrea E., **Lacatusu I.**, Badea N.\*, Ott C., Oprea O., Meghea A., New approach to prepare willow bark extract-lipid based nanosystems with enhanced antioxidant activity, *J. of Nanoscience and Nanotechnology*, **2015**, 15(6), 4080-4089, FI/2018 = 1.354, ISSN: 15334880, WOS:000347435300009, DOI: 10.1166/jnn.2015.9162.
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- Ris 15.** **Lacatusu I.**, Badea N., Niculae G., Bordei N., Stan R., Meghea A.\*, Lipid nanocarriers based on natural compounds: An evolving role in plant extract delivery, *European Journal of Lipid Science and Technology*, **2014**, 116(12), 1708-1717, FI/2018 = 2.200, ISSN 1438-7697, WOS:000346068700013, DOI: 10.1002/ejlt.201300488.
- Ris 16.** Niculae G., **Lacatusu I.**, Bors A., Stan R.\* Photostability enhancement by encapsulation of  $\alpha$ -tocopherol into lipid-based nanoparticles loaded with an UV filter, *Comptes Rendus Chimie*, **2014**, 17(10), 1028-1033, FI/2018: 1.877, ISSN 1631-0748, WOS:00344724400009, DOI: 10.1016/j.crci.2013.12.007.
- Ris 17.** Niculae G., **Lacatusu I.**, Badea N., Stan R., Vasile B.S., Meghea A.\*, Rice bran and raspberry seed oil-based nanocarriers with self-antioxidative properties as safe photoprotective formulations, *Photochemical and Photobiological Sciences*, **2014**, 13(4), 703-716, FI/2018 = 2.902, ISSN 1474-9092, WOS: 000333093000009, DOI: 10.1039/c3pp50290b.
- Ris 18.** Niculae G., **Lacatusu I.**, Badea N., Meghea A., Stan R.\*, Influence of vegetable oil on the synthesis of bioactive nanocarriers with broad spectrum photoprotection, *Central European Journal of Chemistry*, **2014**, 12(8), 837-850, FI/2018 = 1.460, ISSN 1895-1066, WOS:000335552400004, DOI: 10.2478/s11532-014-0503-9.
- Ris 19.** Mihaly M., **Lacatusu I.**, Olteanu N.L., Meghea A.\*, A systematic methodology to design silica templates: Silica microemulsion formulation and nanodroplet type and size

estimation, *Comptes Rendus Chimie* **2014**, 17, 342-351, FI/2018 = 1.877, ISSN 1631-0748, WOS:000334155600007, DOI: 10.1016/j.crci.2013.09.018.

- Ris 20.** Stanescu A.-M., Stoica L., Constantin C., **Lacatusu I.**, Oprea O., Miculescu F. Physicochemical characterization and use of heat pretreated commercial instant dry baker's yeast as a potential biosorbent for Cu(II) removal, *Clean – Soil, Air, Water*, **2014**, 42(11), 1632-1640, FI/2018 = 1.338, ISSN 1863-0650, WOS:000344777700019, DOI: 10.1002/clen.201300484.
- Ris 21.** **Lacatusu I.**, Mitrea E., Badea N.\*, Stan R., Oprea O., Meghea A., Lipid nanoparticles based on omega-3 fatty acids as effective carriers for lutein delivery. Preparation and *in vitro* characterization studies, *Journal of Functional Foods*, **2013**, 5(3), 1260-1269, FI/2018 = 3.470, ISSN 1756-4646, WOS: 000322691600027, DOI: 10.1016/j.jff.2013.04.010.
- Ris 22.** **Lacatusu I.**, Badea N., Oprea O., Bojin D., Meghea A.\*, Antioxidant Activity of Solid Lipid Nanoparticles Loaded with Umbelliferone, *Soft Materials*, **2013**, 11(1), 75-84, FI/2018 = 1.132, ISSN 1539-445X, WOS:000312440900011, DOI: 10.1080/1539445X.2011.582914.
- Ris 23.** Niculae G., Badea N., Meghea A., Oprea O., **Lacatusu I.\***, Coencapsulation of Butyl-Methoxydibenzoyl - methane and Octocrylene into Lipid Nanocarriers: UV Performance, Photostability and *in vitro* Release, *Photochemistry and Photobiology*, **2013**, 89, 1085 – 1094, FI/2018 = 2.214, ISSN 0031-8655, WOS:000324033900011, DOI: 10.1111/php.12117.
- Ris. 24.** Niculae G., **Lacatusu I.**, Badea N., Oprea O., Meghea A. Optimization of lipid nanoparticles composition for sunscreen encapsulation, *UPB Sci. Bull., Series B: Chemistry and Materials Science*, **2013**, 3, 79-92, ISSN 1454-2331.
- Ris 25.** **Lacatusu I.**, Badea N.\*, Stan R., Meghea A., Novel bio-active lipid nanocarriers for the stabilization and sustained release of sitosterol, *Nanotechnology* **2012**, 23, 455702 (13pp), FI/2018 = 3.404, ISSN 0957-4484, WOS: 000310579200018, DOI: 10.1088/0957-4484/23/45/455702.
- Ris 26.** Niculae G., **Lacatusu I.**, Badea N., Meghea A., Lipid nanoparticles based on butyl-methoxydibenzoylmethane: *in vitro* UVA blocking effect, *Nanotechnology*, **2012**, 23, 315704 (10pp), FI/2018 = 3.404, ISSN 0957-4484, WOS:000306516100018, DOI: 10.1088/0957-4484/23/31/315704.
- Ris 27.** **Lacatusu I.**, Badea N.\*, Oprea O., Bojin D., Meghea A., Highly antioxidant carotene – lipid nanocarriers: synthesis and antibacterial activity, *Journal of Nanoparticle Research*, **2012**, 14, 902 (16pp), FI/2018 = 2.127, ISSN 1388-0764, WOS:000305328900035, DOI: 10.1007/s11051-012-0902-9.
- Ris 28.** **Lacatusu I.**, Badea N., Manea A.M., Meghea A. Cryoprotectors Effect on Main Properties of Lipid Nanoparticles Loaded with Bio-active Compounds, *Journal of Optoelectronic and Advanced Materials*, **2012**, 14(3-4), 336-343, FI/2018 = 0.390, ISSN 1454-4164, WOS:000304429900026.
- Ris 29.** Comanescu C., Ficai D., Ficai A., **Lacatusu I.**, Guran C., Lipase immobilisation on new silica-based supports, *Journal of Environmental Protection and Ecology*, **2012**, 13(4), 2302-2309, FI/2018 = 0.679, ISSN 1311-5065, WOS: 000313926400029.
- Ris 30.** Meghea I., Mihai M., **Lacatusu I.**, Iosub I. Evaluation of monitoring of lead emissions in Bucharest by statistical processing, *Journal of Environmental Protection and Ecology*, **2012**, 13(2), 746-755, FI/2018 = 0.679, ISSN: 1311-5065, WOS:000306252600037.

- Ris 31.** Stoica L., Constantin C.\*, **Lacatusu I.**, Collector reagents for heavy metal ions separation from polluted aqueous systems, *Journal of Environmental Protection and Ecology*, **2012**, 13(2), 486-496, FI/2018 = 0.679, ISSN 1311-5065, WOS:000306252600009.
- Ris 32.** Meghea I.\*, Mihai M., **Lacatusu I.**, Apostol T. Time series model applied to environmental monitoring data analyses, *Journal of Environmental Protection and Ecology*, **2012**, 13(2), 426-434, FI/2018 = 0.679, ISSN 1311-5065, WOS:000306252600003.
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- Ris 37.** Patrascu M.E.B., Cojocariu A., Tugulea L., Badea N., **Lacatusu I.**, Meghea A., Nanostructures with liposomes and carbon nanotubes, *Journal of Optoelectronics and Advanced Materials*, **2011**, 13(9-10), 1153-1158, FI/2018 = 0.390, ISSN 1454-4164, WOS:000297562600019.
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- Ris 41.** **Lacatusu I.**, Badea N., Murariu A., Bojin D. and Meghea A., Effect of UV sunscreens loaded in solid lipid nanoparticles: a combined SPF assay and photostability, *Molecular Crystals and Liquid Crystals*, **2010**, 523, 247-259, FI/2018 = 0.633, ISSN 1542-1406, WOS:000278163400022.
- Ris 42.** **Lacatusu I.**, Badea N., Murariu A., C. Nichita, Bojin D. and Meghea A., Antioxidant capacity of Lipid Nanoparticles loaded with Rosemarinus extract, *Molecular Crystals and Liquid Crystals*, **2010**, 523, 260-272, FI/2018 = 0.633, ISSN 1542-1406, WOS:000278163400023.
- Ris 43.** **Lacatusu I.**, Mihai M., Constantin C., Meghea A. Evaluation of carbon monoxide pollution in Bucharest and potential risks for human health. Part I, *Journal of*

*Environmental Protection and Ecology*, **2010**, 11(3), 896-910, FI/2018 = 0.679, ISSN 1311-5065, WOS:000282925000012.

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- Ris 48.** Giurginca M., **Lacatusu I.**, Miu L., Petrovicu I., Parchment behaviour under extreme heat and fire conditions, *Materials Research Innovations*, **2009**, 13(3), 337-339, FI/2018: 0, ISSN 1432-8917, WOS:000269573900060.
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- Ris 50.** Meghea I., Mihai M., **Lacatusu I.**, Apostol T., Statistical Character of Data Obtained on Environmental Monitoring of CO Emissions, *Environmental Engineering and Management Journal*, **2009**, 8(5), 575-582, FI/2018: 1.334, ISSN 1582-9596, WOS:000267917400030.
- Ris 51.** Oproiu G., **Lacatusu I.\***, Stoica L. Examination of kinetic flotation process for two experimental Cu(II) and Ni(II) –  $\alpha$ -benzoinoxime systems, based on kinetic literature models, *Rev. Chim.*, **2009**, 60(6), 641-645, FI/2018: 1.412, ISSN 0034-7752, WOS: 000267571000022.
- Ris 52.** **Lacatusu I.**, Mihaly M., Enesca I. A., Meghea A., Fe<sub>2</sub>O<sub>3</sub> nanoparticles coated in a SiO<sub>2</sub> shell by microemulsion method, *Molecular Crystals and Liquid Crystals*, **2008**, 483, 228-236, FI/2018: 0.633, ISSN 1542-1406, WOS:000256185700022.
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- Ris 54.** Mihai M., **Lacatusu I.**, Murariu A., Meghea A. Evaluation of lead pollution in Bucharest. Part II: Theoretical aspects of risk management strategy for impact of lead on human health, *Environmental Engineering and Management Journal*, **2008**, 7(2), 129-135, FI/2018: 1.334, ISSN 1582-9596, WOS:000255534300008.
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- Ris 56.** Stoica L., **Lacatusu I.\***, Cocu F., Cu(II) separation from aqueous solutions by ionic flotation with 2-hydroxy-5-nonyl-benzaldoxime collector, *Rev. Chim.*, **2007**, 58(10), 915-922, FI/2018 = 1.412, ISSN 0034-7752, WOS:000254644400012.

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- Ris 58.** Stoica L., Micu O., **Lacatusu I.**, Iancu V. Separation of Ni(II) from diluted aqueous solutions by ion flotation,  $\alpha$ -benzoinoxime collector, *Rev. Chim.*, **2006**, 57(8), 826-833, FI/2018 = 1.412, ISSN 0034-7752, WOS:000241770200009.
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#### **B. Articole publicate în alte reviste de specialitate de circulație internațională (Rio)**

- Rio 1.** Stoica L., **Lacatusu I.**, Cu(II) separation from diluted aqueous solutions by flotation with atypical collectors *anti* and *syn* 2-hydroxy-3,5-di-tert-butyl-benzaldoxime, *Int. J. Environment and Waste Management*, **2012**, 9(3/4), 293-312.
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#### **C. Articole publicate în reviste de specialitate de circulație națională, recunoscute de C.N.C.S.I.S. (Rns)**

- Rns 1.** **Lacatusu I.**, Badea N., Giurginca M., Garcia C.V., Sahraoui B., Meghea A., “Synthesis and properties of hybrid glass nanomaterials prepared by entrapping of green tea extract in sol-gel templated matrices”, *Journal of Optoelectronics and Advanced Materials – Symposia*, **2009**, 1(6), 1040-1046.

#### **D. Articole publicate în volumele unor manifestări științifice (Vi)**

- Vi.1.** Stoica L., Constantin C., **Lacatusu I.**, “New collectors in ion flotation and its variants”, *INCD ECOIND, Simpozion Mediul si Industria*, Academia de Stiinte Romana, Bucuresti, **2004**, 49-55.
- Vi.2.** Stoica L., **Lacatusu I.**, “Ion flotation in Cu(II)- $\alpha$ -benzoinoxime complexes from diluted aqueous systems”, *13<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering*, Bucharest, vol I, **2003**, 29-34.

### **V. PROIECTE DE CERCETARE-DEZVOLTARE-INOVAR (P)**

#### **a) Proiecte naționale de cercetare - dezvoltare - inovare obtinute prin competitie (Responsabil/Director proiect)**

- Pn 1.** Bio-produse dermato-cosmetice pe baza de uleiuri vegetale si fitocomplecsi cu actiune anti-acneica, *Phyto-cosmetics*, PN-II-PT-PCCA-2013-4-1761, 204/2014, UEFISCDI, 1.250.000lei, 01.07.2014-30.06.2016 (director proiect);

[http://org1.chim.pub.ro/i\\_lacatusu/PN-II\\_PCCA\\_2013\\_Phycocosmetics\\_LacatusuI.htm](http://org1.chim.pub.ro/i_lacatusu/PN-II_PCCA_2013_Phycocosmetics_LacatusuI.htm)

**Pn 2.** Medicamente inovative cu potential terapeutic ridicat din resurse vegetale, *SqMedi*, PN-II-PT-PCCA-2011-3.2-1000, ctr. 132/2012, UEFISCDI, 500.000 lei, 18.07.2012-01.07.2016 (responsabil proiect); <http://www.biotehnologii.usamv.ro>

**Pn 3.** Tehnici complexe de investigare, evaluare, conservare si restaurare a materialelor colagenice etnografice, PN II - 92089/2008 2008 – 2011 (responsabil proiect).

**b) Proiecte naționale de cercetare - dezvoltare - inovare (Membru în echipa de cercetare)**

**Pn 4.** Nanotransportori lipidici bioactivi pentru co-încapsularea extractelor vegetale selective cu performanțe farmaco-cosmetice amplificate (dir. pr. Prof. dr. A. Meghea), PN-II-ID-PCE-2012-4-0111, ctr. 80/02.09.2013, UEFISCDI, 1.125.000 lei, 02.07.2013-30.09.2016; <http://www.chfiz.pub.ro/idei2/>;

**Pn 5.** O nouă clasă de nanobiomateriale obținute prin sinteza dirijată a unor organo-siloxani conținând nanocapsule lipidice (LNC) înglobate interstițial cu proprietăți multifuncționale (dir. pr. Prof. dr. A. Meghea), CNCSIS, IDEI, CH 410708, 1.000.000 lei, 2007-2010, CNCSIS Idei nr. 433/01.10.2007; <http://www.chfiz.pub.ro/idei1/>;

**Pn 6.** Noi materiale si nanostructuri pentru prevenirea si minimizarea impactului mediului asupra ciclului vietii (dir. pr. Prof. dr. A. Meghea), CEEX, cod 8, 2005-2007;

**Pn 7.** Noi preparate farmaceutice topice pe baza de complecsi ai clorhexidinei cu ioni metalici de zinc, cupru si argint cu activitate antimicrobiana si antiparazitara (Hexicofarm) (dir. pr. Prof. dr. A. Meghea), 61-035/2007;

**Pn 8.** Model de monitorizare a contaminarii cu metale grele a alimentelor pe baza de peste si a riscului asupra sanatatii consumatorului (dir. pr. Prof. dr. A. Meghea), 139/2007;

**Pn 9.** Tehnologii si materiale durabile de conservare si de restaurare a obiectelor de patrimoniu din piele pentru asigurarea viabilitatii mostenirii culturale la nivel comunitar (dir. pr. M. Giurginca), 91-012/2007;

**Pn 10.** Sistem complex de tehnici imagistice pentru investigarea/diagnosticarea restaurarea structurilor multistrat din alcatuirea monumentelor istorice. IMAGIST (dir. pr. S.L. dr. N. Badea), 91-009/2007;

**Pn 11.** Bioproduse flavonoidice, modulatori in proteomica stresului oxidativ, cu actiune profilactica si terapeutica (dir. pr. S.L. dr. N. Badea), 61014/2007;

**Pn 12.** Dezvoltarea infrastructurii Laboratorului acreditat al UPB-CNC pentru evaluarea rezistenței la coroziune a materialelor cu implicații în mediu & sănătate (dir. pr. Prof. dr. I. Demetrescu), CeEx, Modulul IV P-CONFORM 238/10.08.2006;

**Pn 13.** Identificarea si tratamentul efectului agentilor poluanti asupra componentelor artistice ale cladirilor istorice. Studii de caz (dir. pr. Dr. ing. M. Giurginca), CEEX, AMTRANS X2C11/18.07.2006

**Pn 14.** Cercetări multidisciplinare pentru stabilirea mecanismelor de deteriorare a documentelor istorice și culturale din pergament (dir. pr. Dr. ing. M. Giurginca), CEEX 165/ 2006;

**Pn 15.** Separarea poluanților Cd(II) și Pb(II) prin flotație din sisteme apoase și recuperarea lor sub formă de oxizi și saruri (dir. pr. Prof.dr. L. Stoica), nr. BENA-TUBORG S.A. P 11/2003;

**Pn 16.** Materiale magnetorezistive: sinteză și caracterizare (dir. pr. Prof. dr. L. Stoica), nr. 43-03-11/2003, CERES;

**Pn 17.** Metode de recuperare neconvenționale prin flotație în sisteme apoase policomponente (dir. pr. Prof. dr. L. Stoica), nr. 110, cod CNCSIS 171/2002.



**c) Proiecte de cercetare internationale (Membru în echipa de cercetare)**

**Pi 1.** The obtaining of new cosmetic products based on natural extracts with enhanced therapeutic properties (dir. pr. S.L. Dr. N. Badea), Bilateral Romania – Moldova 429/2010;

**Pi 2.** Wastewater treatment sludge and marine biomass from romanian black sea coast as innovative bio-solid composite, Bilateral Romania – Norvegia (dir. pr. Prof. dr. A. Meghea), Nr KNRIN-115241/2008.

**VI. COMUNICĂRI ȘTIINȚIFICE NEPUBLICATE (E - Lucrări prezentate la diferite seminarii și conferințe internaționale)**

1. Bordei N., **Lacatusu I.**, Badea N., Meghea A., Popescu M. The valuable effect of vegetable oils in developing lipid nanocarriers that encapsulate lipophilic extract, *20<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering (20<sup>th</sup> RICCCE)-S6-264, 2017*, Poiana Brasov, Romania;
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4. Badea N., **Lacatusu I.**, Badea G., Meghea A., The efficiency of lipid nanocarriers in accommodation of hydrophilic plant mixture, *Nanotechnology 2016, 13th Int. Conference on Nanosciences & Nanotechnologies (NN16)*, 2-9.07.2016, Thessaloniki, Grecia, pag 229;
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