



LISTA DE LUCRĂRI
Prof. dr. ing. Badea Maria Nicoleta

I. TEZA DE DOCTORAT

Chemiluminescența în sisteme pro si antioxidante cu aplicații biomedicale –UPB, 2004;

II. TEZA DE ABILITARE

Biohybrid based silver nanoparticles and nanostructured lipid carriers as efficient delivery systems for natural and/or synthetic actives– UPB, 2019;

Doctor Habilitat – Conducator de doctorat în domeniul de studii universitare de doctorat
Inginerie Chimică

III. ARTICOLE PUBLICATE

A. Ris - Reviste de specialitate de circulație internațională

Ris 105 Iordache T.A., Badea N., Mihaila M., Crișan S., Pop A. L., Lacatusu I., Challenges in coopted hydrophilic and lipophilic herbal bioactives in the same lipid nanocarriers for effective bioavailability and anti-inflammatory, *Nanomaterials*, 2021, *11*(11), 3035; WOS:000726664900001

Ris 107 Lacatusu I., Iordache T. A., Mihaila M., Pop A. L., **Badea N**, Mihaiescu D. E., Multifaced role of dual herbal principles loaded - lipid nanocarriers in providing high therapeutic efficacy, *Pharmaceutics* 2021, *13*(9), 1511, WOS:000701582700001

Ris 106 Gorshkova, Y.; Barbinta-Patrascu, M.-E.; Bokuchava, G.; **Badea, N.**; Ungureanu, C.; Lazea-Stoyanova, A.; Raileanu, M.; Bacalum, M.; Turchenko, V.; Zhigunov, A.; et al. Biological Performances of Plasmonic Biohybrids Based on Phyto-Silver/Silver Chloride Nanoparticles. *Nanomaterials* 2021, *11*, 1811;

Ris 105 Barbinta-Patrascu, M.-E.; Gorshkova, Y.; Ungureanu, C.; Badea, N.; Bokuchava, G.; Lazea-Stoyanova, A.; Bacalum, M.; Zhigunov, A.; Petrović, S. Characterization and Antitumoral Activity of Biohybrids Based on Turmeric and Silver/Silver Chloride Nanoparticles. *Materials* 2021, *14*, 4726.

Ris 104 Iordache T.-A, Coc L.M.C., Mihai A. L., Badea N., Lacatusu I., Meghea A, The influence of vegetable oil and self-organizing agents composition on obtaining stable nanostructured lipid carriers, in *UPB Sci. Bull. B: Chem. Mater. Sci.*, acceptat, ID 11896

Ris 103 Coc, LMC, Lacatusu, I, Badea N. Barbinta-Patrascu, ME, Effective lipid nanocarriers based on linseed oil for delivery of natural polyphenolic active, *Journal of Nanomaterials*, 2021, 8853941, WOS:000621082400001

- Ris 102** Barbinta-Patrascu, ME, Nichita, C, Badea N, Ungureanu, C , Bacalum, M, Zgura, I, Iosif, L, Antohe, S, Biophysical aspects of bio-nanosilver generated from urtica dioica leaves and vitis vinifera fruits' extracts, Romanian Reports in Physics, 73(1), 601, 2021, WOS:000631705400011;
- Ris 101** Lacatusu, I. D. Istrati, N. Bordei, M. Popescu, A.M. Seciu, L.M. Panteli, **Badea N.***, Synergism of plant extract and vegetable oils-based lipid nanocarriers: Emerging trends in development of advanced cosmetic prototype products, Mat. Sci. Eng. C, 108, 2020, 2020, 110412 (15 pp); WOS:000510956400041;
- Ris 100** Arsenie, L.V, Lacatusu, I. Oprea, O. ,Bordei, N. , Bacalum, M., **Badea N.**, Azelaic acid-willow bark extract-panthenol – Loaded lipid nanocarriers improve the hydration effect and antioxidant action of cosmetic formulations, Ind. Crop. Prod, 154, 2020, Article no. 112658, (13 pp); WOS:000554526900045
- Ris 99** Barbinta-Patrascu M.E., Badea N., Ungureanu C., Besliu D., Antohe S., Bioactive phyto-nanosilver particles “green” synthesized from clary sage, burdock, southernwood and asparagus, (2020) Romanian Reports in Physics, 72 (3) , art. no. 606 , pp. 1-13. ISI:1.940
- Ris 98** Barbinta-Patrascu, M.E., Ungureanu, C., **Badea, N.**, Bacalum, M. Lazea-Stoyanova, A. Zgura, I. Negrila, C, Enculescu, M., Burnei, C., Novel ecogenic plasmonic biohybrids as multifunctional bioactive coatings, Coatings, 10(7), 2020, 659 (23pp);
- Ris 97** Bratu, A., Ott, C., Balanuca, B., **Badea, N.**, Lacatusu, I., The association effect of cocoa butter with vegetable oils on the obtaining of lipid nanocarriers loaded with antidepressant and antipsychotic drugs, Revue Roumaine de Chimie 65(1), 2020, 57-67
- Ris. 93** Barbinta-Patrascu, ME, **Badea N.**, Bacalum, M, Antohe, S, Novel bio-friendly nanomaterials based on artificial cell membranes, chitosan and silver nanoparticles phytogenerated from Eugenia Caryophyllata buds: eco-synthesis, characterization and evaluation of bioactivities, Romanian Reports in Physics, 2020, 72 (1), 601, WOS:000519541700014
- Ris 96** Lacatusu I., Istrati D., Bordei N., Popescu M, Seciu A.M., Panteli L.M., Badea N*., Synergism of plant extract and vegetable oils-based lipid nanocarriers: Emerging trends in development of advanced cosmetic prototype products, Mat. Sci. Eng. C, 108, 2020, 110412; WOS: 00051095640004
- Ris 94. N. Badea**, M. M. Craciun, A. S. Dragomir, M. Balas, A. Dinischiotu, C. Nistor, C. Gavan, D. Ionita: Systems based on carbon nanotubes with potential in cancer therapy, Mat Chem. Phys. 2020, 241,122435, WOS:000514749500084
- Ris. 93** Barbinta-Patrascu, ME, Constantin, M, **Badea, N**, Ungureanu, C, Iordache, SM, Purcar, V Antohe, Tangerine-generated silver silica - bioactive materials, Romanian Journal of Physics, 64, (3-4), no articles 701, 2019, WOS:000466102900007
- Ris. 92** Besliu D., Barbinta-Patrascu M. E., Badea N., Rau I., Meghea A Lipo-nanosilver composites biogenerated using *Artemisia abrotanum* L. aqueous extract, Molecular Crystals and Liquid Crystals, 2019, 10.1080/15421406.2020.1723895, WOS:000531061100004
- Ris. 91** Barbinta-Patrascu, ME, **Badea N**, Ungureanu, C, Ispas, A , Photophysical aspects regarding the effects of Paeonia officinalis flower extract on DNA molecule labelled with methylene blue, Optoelectronics and Adv. Mat.-Rapid Communications, 13 (1-2), 131-135, 2019, WOS:000465508500021;
- Ris.90** Lacatusu I., **Badea N.**, Badea G, Mihaila M, Ott C, Stan R., Meghe A., Advanced bioactive lipid nanocarriers loaded with natural and synthetic anti-inflammatory actives, Chem. Eng. Sci., 200, 113-126; WOS:000461418000011

- Ris. 89** Barbinta-Patrascu, M.E. **Badea, N.**, Bacalum, M., Ungureanu, C., Bunghez-Suica R.I., Iordache S.M., Zgura I, Maraloiu V.A, 3D hybrid structures based on biomimetic membranes and *Caryophyllus aromaticus* - "green" synthesized nano-silver with improved bioperformances, *Mat. Sci. Eng. C*, 101, 120-137,2019; WOS:000471359100012
- Ris. 88** Lacatusu I., **Badea N.**, Udeanu D., Coc L., Pop A , Cioates Negut C., Tanase C.,Stan R., Meghe A., Improved anti-obesity effect of herbal active and endogenous lipids co-loaded lipid nanocarriers: preparation, in vitro and in vivo evaluation, *Material Science and Engineering C*, 2019, 99, 12-24. WOS:000463121200002;
- Ris. 87** Barbinta-Patrascu ME, **Badea N**, Constantin M, Ungureanu, C., Nichita C., Iordache, Vlad A., Antohe S., Bio-activity of organic/inorganic phyto-generated composites in bio-inspired systems, *Romanian Journal of Physics*, 63 (5-6), 702, 2018, WOS:000440033800008;
- Ris 86** Lacatusu I., Arsene LV, Badea G., Popa O., Oprea O., **Badea N.**, New cosmetic formulations with broad photoprotective and antioxidative activities designed by amaranth and pumpkin seed oils nanocarriers, *Industrial Crops and Products*, 123, 424-433,2018, WOS:000447103900048;
- Ris 85.** Lacatusu I., Badea G., Popescu M., Bordei N., Istrati D., Moldovan L., Seciu A.M., Pandeli M.I., Rasi 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, ISSN 09266690, WOS:000413880300018.
- Ris 84.** Barbinta-Patrascu, M.E. **Badea, N.** , Ungureanu, C. , Pirvu, C. , Iftimie, V , Antohe, S. Photophysical studies on biocomposites based on carbon nanotubes and chlorophyll-loaded biomimetic membranes, *Romanian Reports in Physics*,69, 1, 2017, 604; WOS:000401305200018
- Ris 83.** Barbinta-Patrascu, M.E., **Badea, N.**, Ungureanu, C., Iordache, S.M., Constantin, M., Purcar, V. Rau, I. Pirvu, C. , Ecobiophysical aspects on nanosilver biogenerated from citrus *reticulata* peels, as potential biopesticide for controlling pathogens and wetland plants in aquatic media, *Nanotechnology*, 2017, article no 4214017; WOS:000405149800001
- Ris 82** Badea G., **Badea N.**, Brasoveanu L. I., Mihaila M., Stan R., Istrati D., Balaci T., Lacatusu I., Naringenin improves the sunscreen performance of hydrogel formulations based on vegetable nanocarriers, *New Chem. J*, 2017,41, 480- 492, WOS:000393887200011
- Ris. 81** Lacatusu, I. Badea, N., Badea, G. , Brasoveanu, L., Stan, R., Ott, C, Oprea, O, Meghea, A.^a Ivy leaves extract based - Lipid nanocarriers and their bioefficacy on antioxidant and antitumor activities, *RSC Advances* 6 (81), 2016, 77243-77255, WOS:000382482200015
- Ris 80** Barbinta Patrascu, M.E. ,**Badea, N.**, Ungureanu, C., Bunghez Raluca, I., Rau, I. Gold and silver geranium biocomposites, *Molecular Crystals and Liquid Crystals*, 627, 1, 190-197, 2016, WOS:000378124600024
- Ris. 79** Barbinta-Patrascu, M.E.· **Badea, N***· Ungureanu, C, Constantin, M, Pirvu, C., Rau, I. Silver-based biohybrids "green" synthesized from *Chelidonium majus* L., *Optical Materials*, 56, 94-99, 2016, WOS:000375517200018
- Ris, 78** Istrati D., Lacatusu I., Bordei N., Badea G., Oprea O., Stefan L.M., Stan R., **Badea N. ***, Meghea A., Phyto-mediated nanostructured vehicles based on dual vegetable actives involved in the prevention of cellular damage, *Material Science and Engineering C*, 64, 249-259, ISSN 0928-4931; WOS:000376547700030.

- Ris 77.** Barbinta-Patrascu, M.E. **Badea, N.*** , Pirvu, C. Bacalum, M., Ungureanu, C., Nadejde, P.L., Ion, C. Rau, I. Multifunctional soft hybrid bio-platforms based on nano-silver and natural compounds, *Materials Science and Engineering: C*, 69, 922-932, 2016, WOS:000383930900106.
- Ris 76. M. E. Barbinta-Patrascu, S. M. Iordache, A. M. Iordache, N. Badea, C. Ungureanu.** Nanobioarchitectures based on chlorophyll photopigment, artificial lipid bilayers and carbon nanotubes, *Beilstein J. Nanotechnol.*, 5, 2316-2325, 2014; doi:10.3762/bjnano.5.240 , WOS:000346612600002
- Ris 75.** C. Ott, I. Lacatusu, G. Badea, I. A. Grafu, D.Istrati, N. Babeanu, R. Stan,, Badea N., A. Meghea, Exploitation of amaranth oil fractions enriched in squalene for dual delivery of hydrophilic and lipophilic actives, *Industrial Crops and Products*, 77, 342–352, 2015, WOS:000366065200041.
- Ris 74.** 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*, 56, 2015, 88-94, ISSN: 0928-4931, WOS:000359873900011
- Ris 73.** 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, *Journal of Photochemistry and Photobiology B: Biology*, 147, 2015, 1-8., ISSN: 1011-1344, WOS:000354156000001;
- Ris 72.** E. Mitrea, I. Lacatusu, **N. Badea**, C. Ott, O Oprea, A. Meghea , New approach to prepare willow bark extract – lipid based nanosystems with enhanced antioxidant activity, *J. Nanosci. Nanotechnol.*, 15 6) 2015, 4080-4089, ISSN: 1533-4880, WOS:000347435300009.
- Ris 71.** G. Badea, I. Lacatusu, **N. Badea**, C. Ott, A. Meghea, Use of various vegetable oils in designing photoprotective nanostructured formulations for UV protection and antioxidant activity, *Industrial Crops and Products* 67 (2015) 18–24, WOS:000352039600004;
- Ris70.** M. E. Barbinta-Patrascu, C. Ungureanu, S. M. Iordache, , I. R. Bunghez, N. Badea, I. Rau, "Green silver nanobioarchitectures with amplified antioxidant and antimicrobial properties" *Journal of Materials Chemistry B*. 2(21), pp. 3221-3231, ISSN 2050-750X, WOS:000336072400007.
- Ris 69.** I. Lacatusu, N. Badea, G. Niculae, N. Bordei, R. Stan, A. Meghea, Lipid nanocarriers based on natural compounds: an evolving role in further plant extracts delivery, *Eur. J. Lipid Sci. Tehnol*, 116, 2014, 116, 1708–1717, ISSN: 1438-9312, WOS:000346068700013.
- Ris 68.** M. E. Barbinta-Patrascu, C. Ungureanu, S. M. Iordache, A. M. Iordache, I. R. Bunghez, Marius Ghiurea, N. Badea, R. C. Fierascu, I. Stamatina, Eco-designed biohybrids based on liposomes, mint-nanosilver and carbon nanotubes for antioxidant and antimicrobial coating, *Materials Science and Engineering: C*, 39, 2014, 177–185, ISSN: 0928-4931, WOS:000343949200025.
- Ris 67.** I. Lacatusu, G. Niculae, N. Badea, R. Stan, A. Meghea , Influence of vegetable oil on the synthesis of bioactive nanocarriers with broad spectrum photoprotection, *Central European Journal of Chemistry*, DOI 10.2478/s11532-014-0503-9, ISSN 1895-1066, WOS:000335552400004.
- Ris 65.** I. Lacatusu, G. Niculae, N. Badea, R. Stan, O. Popa, O. Oprea, A. Meghea, Design of soft lipid nanocarriers based on bioactive vegetable oils with multiple health benefits,

Chemical Engineering Journal, 246C (2014), pp. 311-321, DOI information: 10.1016/j.cej.2014.02.041, ISSN: 1385-8947, WOS:000335275000035.

Ris 65. G. Niculae, I. Lacatusu, N. Badea, R. Stan, B. S. Vasile, A. Meghea, Rice bran and raspberry seed oil-based nanocarriers with self-antioxidative properties as safe photoprotective formulations, *Photochem. Photobiol. Sci.*, 2014, 13 (4), 703 - 716, ISSN 1474-9092, WOS: 000333093000009

Ris 64. 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*, 5, 1 2 6 0 –1 2 6 9, 2013, ISSN 1756-4646, WOS: 000322691600027.

Ris 63. Niculae G., **Badea N.**, Meghea A., Oprea O., Lacatusu I., Co-encapsulation of butyl-methoxydibenzoylmethane and octocrylene into lipid nanocarriers: UV performance, photostability and *in Vitro* release, *Photochemistry and Photobiology*, 89, 5, 2013, 1085-1094, **DOI:** 10.1111/php.12117, 2013, ISSN 1751-1097, WOS:000324033900011.

Ris 62. Barbinta-Patrascu M.E., Bunghez I.R., Iordache S. M., **Badea N.***, Fierascu R.C. , Ion R. M., Antioxidant properties of biohybrids based on liposomes and silver nanoparticles, *J. Nanosci. Nanotechnol.* 13, 2051-2060, 2013, ISSN: 1533-4880, WOS: 000319027300081.

Ris 61. I. Lacatusu, **N. Badea**, O. Oprea, D. Bojin, A. Meghea, Antioxidant activity of solid lipid nanoparticles loaded with umbelliferone, *Soft materials*, 11 (1), 75 - 84, 2013, ISSN 1539-445X, WOS:000312440900011.

Ris 60. Barbanța Patrascu M. E., **Badea N.***, MEGHEA A., Oxidative stress studies on plant DNA exposed to ozone, *J of optoelectronics and advanced materials*, 15, 5-6, 2013, 589 – 594, ISSN 1454-4164, WOS:000322288200036.

Ris 59. Feraru D.L., Meghea A., **Badea N***, Forensic discrimination of ballpoint pen inks based on correlation of data obtained by optical and spectral methods, *REV. CHIM*, 64 (1) 74 -80, 2013, ISSN 0034-7752, WOS:000315934900013

Ris 58. Lacatusu I., **Badea N.***, Oprea O., Bojin D., Meghea A., Highly antioxidant carotene-lipid nanocarriers: synthesis and antibacterial activity, *J Nanopart Res.*, 14, 902 - 915, 2012, ISSN:1388-0764 , WOS:000305328900035

Ris 57. Niculae G., Lacatusu I., **Badea N.***, Meghea A., Lipid nanoparticles based on butyl-methoxydibenzoylmethane: In vitro UVA blocking effect, *Nanotechnology*, 23, 2012, 315704 (10pp), (ISSN 0957-4484, WOS:000306516100018.

Ris 56. Lacatusu I., **Badea N.***, Stan R., Meghea A., Novel bio-active lipid nanocarriers for the stabilization and sustained release of sitosterol, *Nanotechnology*, 23, 2012, 455702 (13pp), ISSN 0957-4484, WOS:000310579200018.

Ris 55. Lacatusu I., **Badea N.***, Manea A. M., Meghea A., Cryoprotector effect on main properties of lipid nanoparticles loaded with bio-active compounds, *J of optoelectronics and advanced materials*, 14, 3-4, 2012, 336 – 343, ISSN 1454- 4164, WOS: 000304429900026.

Ris 54. R. Bunghez, M. E. Barbinta Patrascu, N. Badea S. M. Doncea, A. Popescu, R. M. Ion Antioxidant silver nanoparticles green synthesized using ornamental plants, *Journal of Optoelectronics and Advanced Materials*, Vol. 14(11-12), p. 1016 – 1022, 2012, ISSN 1454-4164 , WOS:000312614800024.

Ris 53 Kaya, DA ; Ferdes, M Badea, N; Albu, MG , The effect of laurel and thymra essential oils on antioxidant and antimicrobial properties of collagen hydrolysate,

ROMANIAN BIOTECHNOLOGICAL LETTERS, ISSN: 1224-5984, 17 (5), 7694-7701, WOS:000310650400017

Ris 52. Radu N., **Badea M. N.**, Ferdes M., Rau I, Antioxidant properties of fungal biomaterial, *Mol. Cryst. Liq. Cryst.*, 555, 202–207, 2012, (ISSN: 1542-1406; IF: 0,53);

Ris 51. Negreanu-Pirjol, B, Negreanu-Pirjol, T, **Badea, N**, Paraschiv, GM, Gorun, E, Sirbu, R, Meghea, A. Physico-chemical and microbiological characterization of municipal sludge from Romanian Black Sea coast wastewater treatment plants. *J. Env. Prot. Ecol.*, 13, 4, 2232-2239, 2012, ISSN 1311 – 5065, WOS:000313926400021.

Ris 50. Barbinta Patrascu M. E., Cojocariu A., Tugulea L, **Badea M. N.***, Lacatusu I., Meghea A., Nanostructures with liposomes and carbon nanotubes, *J of optoelectronics and advanced materials*,13 (9), 2011, 1153 -1158, ISSN 1454-4164 , WOS:000297562600019

Ris 49. Lacatusu I., **Badea N.**, Murariu A., Meghea A. „The encapsulation effect of UV molecular absorbers into biocompatible lipid nanoparticles”, *Nanoscale Research Letters*, 6/1/73, (9 pp), 2011, ISSN: 1556-276X, WOS:000290525700005

Ris 48. Lungu A., Șulcă N. M., Vasile E., **Badea N.**, Pârvu C., Iovu H., The influence of POSS substituent on synthesis and properties of hybrid materials based on urethane dimethacrylate (UDMA) and various polyhedral oligomeric silsesquioxane (POSS), *Journal of Applied Polymer Science*, 121 (5), 2919–2926, 2011, (ISSN 0021-8995, WOS:000291598100053

Ris 47. Lacatusu, I., **Badea, N.**, Murariu, A., Pirvu, C., Meghea, A., „Vegetal nanoclusters in hybrid silica films prepared by sol-gel spin coating technique”, *Journal of Non-Crystalline Solids*, 357, 1716-1723, 2011 (ISSN: 0022-3093, WOS:000290006900018

Ris 46. C. Ungureanu, Ionita, D., **Badea, N.**, Demetrescu, I., From nanoscale engineering to biomedical application -characterization of pulse electrodeposited biomimetic antibacterial coating on Ti6Al4Zr, *Digest Journal of Nanomaterials and Biostructures*, 6(3), 1273- 1279, 2011, ISSN. 1842-3582, WOS:000297986100044.

Ris 45. Nichita, C., Neagu, G., Vulturescu, V., Albulescu, R., **Badea, N.**, Giurginga, M., Meghea, A., „Correlation between antioxidant activity and hepatoprotective effect of a vegetal bioproduct” *Mol. Cryst. Liq. Cryst.*, **523**, 228-235, 2010, ISSN: 1542-1406; WOS:000278163400020

Ris 44. Lacatusu, I., **Badea, N.**, Murariu, A., Nichita, C., Bojin, D., Meghea, A., „Antioxidant capacity of lipid nanoparticles loaded with Rosemary extract”, *Mol. Cryst. Liq. Cryst.*, **523**, 260-272, 2010, ISSN: 1542-1406; WOS:000278163400023

Ris 43. Lacatusu, I., **Badea, N.**, Murariu, A., Bojin, D., Meghea, A., „Effect of UV sunscreens loaded in solid lipid nanoparticles: A combined SPF assay and photostability”, *Mol. Cryst. Liq. Cryst.*, **523**, 247-258, 2010, ISSN: 1542-1406; WOS:000278163400022.

Ris 42. Lacatusu, I., **Badea, N**, Bojin, D., Iosub, I., Meghea, A., „Silica polymeric networks templated with D-fructose as host matrices for natural extracts immobilization”, *Mol. Cryst. Liq. Cryst.*, **521**, 272-278, 2010, ISSN: 1542-1406; WOS:000278163100025.

Ris 41. Lacatusu I., **Badea N.**, Nita R., Murariu A., Miculescu F., Iosub I., Meghea A., “Encapsulation of fluorescence vegetable extracts within a templated sol – gel matrix”, *Optical Materials*, 32, 711-718, 2010, ISSN: 0925-3467, WOS:000276702900013

Ris 40. Lacatusu I., **Badea N.**, Bojin D., Iosub S., Meghea A., “Novel fluorescence nanostructured materials obtained by entrapment of an ornamental bush extract in hybrid silica glass”, *Journal of Sol-Gel Science and Technology*, 51 (1), 84-91, 2009, ISSN: 0928-0707, WOS:000266482900013.

- Ris 39.** Nichita C., Caraene G., **Badea N.**, Giurgingca M., Vaca-Garcia C., Meghea A., Vegetal bioproducts with prophylactic and therapeutic activity, *Materials Research Innovation*, 2009, 13(3), 313-315, ISSN 1432-8917, WOS:000269573900053
- Ris 38.** Lacatusu I., **Badea N.**, Nita R., Giurgingca M., Bojin D., Iosub I., Meghea A., “Synthesis of high fluorescent silica hybrid materials by immobilization of orange peel extract in silica-silsesquioxane matrix”, *Journal of Organic-Physics Chemistry*, 2009, 22, 1015-1021, ISSN: 1099-1395,
- Ris 37.** Lacatusu I., Nita R., **Badea N.**, Bojin D., Meghea A., “The role of silsesquioxane compounds used as „building blocks” in sol – gel nanoencapsulation of retinyl palmitate”, *Materials Research Innovations*, 2009, 13(3), 330-333, ISSN 1432-8917, WOS:000269573900058.
- Ris 36.** Badea E., Miu L., Budrugaec P., Giurgingca M., Mašić A., **Badea N.**, Gatta G. D., “Study of deterioration of historical parchments by various thermal analysis techniques, complemented by SEM, FTIR, UV-VIS-NIR and unilateral NMR, *Journal of Thermal Analysis and Calorimetry*, 91 (1) , 2008, 17-27, ISSN 1388-6150, WOS:000252889200003
- Ris 35.** **Badea, N.**, Giurgingca, M., Meghea, A., “Complex effects of sunscreen agents and flavonoid antioxidants”, *Molecular Crystal & Liquid Crystals*, **486**, 183-192, 2008, ISSN: 1542-1406; WOS:000252889200003
- Ris 34.** Bancu, L., **Badea, N.**, Nita, R., Meghea, A., “Enhanced fluorescence of Ni(II) complex compounds in the presence of DNA components”, *Molecular Crystal & Liquid Crystals*, **486**, 230-238, 2008, ISSN: 1542-1406, WOS:000256186000023.
- Ris 33.** Nita, R.M., **Badea, N.**, Bancu, L., Meghea, A., “Preliminary results for DNA-surfactant Ni(II) complex structures inclusions into organic-inorganic nano-composites”, *Molecular Crystal & Liquid Crystals*, **486**, 239-243, 2008, ISSN: 1542-1406, WOS:000256186000024.
- Ris 32.** Barbinta-Patrascu, M.E., **Badea, N.**, Tugulea, L.G., Giurgingca, M., Meghea, A., „Oxidative stress simulation on chlorophyll a lipid model membranes – Chemiluminescent studies”, *Rev. Chimie*, **59**, 8, 834-837, 2008, ISSN: 0034-7752, WOS:000260067700002
- Ris 31.** Giurgingca, M., **Badea, N.**, Miu, L., Meghea, A., “Spectral techniques for identifying tanning agents in the heritage leather items” *Rev. Chimie*, **58**, 9, 923-928, 2007, ISSN: 0034-7752, WOS:000250636800015.
- Ris 30.** Elisa, M., Grigorescu, C., Vasiliu, I., Bulinsli, M., Kuncser, V., Predoi, D., Filoti, G., Meghea, A., **Iftimie (Badea) N.**, Giurgingca, M., Onose, C., “Optical characterization of the phosphate glasses containing pair transition ions”, *Optical and Quantum Electronics*, **39** (4-6), 523-531, 2007, ISSN: 0306-8919; WOS:000248827100025.
- Ris 29.** Onose C., Onose C. S., Mihaly M., **Badea N.**, Niciu H., Niciu D., Elişa M., “The synthesis of nanocrystalline electroluminescent chalcogenides”, *Journal of Optoelectronics and Advanced Materials*, vol. 9, Nr. 10, 2007, ISSN 1454-4164 , WOS:000250711500047.
- Ris 28.** Aldea E., **Badea N.**, Demetrescu I., “Evaluating titanium alloys’ bioactivity in terms of hydroxyapatite (HA) forming capability”, *Rev. Chimie*, 2007, vol. 58, nr. 9, pp. 918 – 922, ISSN 0034-7752, WOS:000235911300005.
- Ris 27.** Elisa, M., Vasiliu, I. C., Grigorescu, C.E.A., Grigoras, B., Niciu, H., Niciu, D. Meghea, A., **Iftimie (Badea) N.**, Giurgingca, M., Trodahl, H.J., Dalley, M., “Optical and structural investigation on rare–earth-doped aluminophosphate glasses”, *Optical Materials*, **28**, 621-625, 2006, ISSN: 0925-3467; WOS:000236916500011.

- Ris 26.** Meghea, A., Cremenescu, E., **Iftimie (Badea) N.**, Giurginca, M., Trandafir, V., “New nanostructured complex systems with antioxidant and photoprotective activity”, *Molecular Crystals and Liquid Crystals*, **448**, 51- 60, 2006, ISSN: 1542-1406; WOS:000235404700004.
- Ris 25.** Peydecastaing, J., Bras, J., Vaca-Garcia, C., Borredon, E., **Iftimie (Badea) N.**, Giurginca, M., Meghea, A., “NIR study of chemically modified cellulosic biopolymers”, *Molecular Crystals and Liquid Crystals*, **448**, 115 -122, 2006, ISSN: 1542-1406, WOS:000235404700010.
- Ris 24.** Iosub, I., Giurginca, M., **Iftimie (Badea) N.**, Meghea, A., “Redox properties of some aminoacids and proteins”, *Molecular Crystals and Liquid Crystals*, **448**, 39 – 49, 2006, ISSN: 1542-1406, WOS:000235404700003.
- Ris 23.** Ivan, G., Giurginca, M., **Badea, N.**, Meghea, A., “Natural antioxidants for thermo-oxidative stabilization of elastomers”, *Rev. Roumaine Chim*, **51** (3), 205-210, 2006, ISSN: 0035-3930, WOS:000240447100007.
- Ris 22.** M. Elisa, C.E.A. Grigorescu, C. Vasiliu, M. Bulinski, V. Kuncser, D. Predoi, G. Filoti, A. Meghea, **N. Iftimie**, M. Giurginca “Optical and electronic properties of the aluminophosphate glasses doped with 3d- transition metal ions”, *Reviews on Advanced Materials Science* **10** (4), 367 – 374, 2005, ISSN: 1606-5131, WOS:000232984200016.
- Ris 21.** Patron, L., Giurginca, M., Pătrănoiu, G. M., **Iftimie (Badea) N.**, Meghea, A., “Influence of some therapeutically active guanides and their metal complexes on the antioxidant activity”, *Revue Roum. Chimie*, **50** (6), 457-464, 2005, ISSN: 0035-3930, WOS:000233575500005.
- Ris 20.** Bogdanescu, V., Giurginca, M., **Iftimie (Badea) N.**, Mihalache, R., Meghea, A., „Depistarea falsurilor din cafea prin metode spectrale”, *Rev. de Chimie*, **56** (4), 378 – 381, 2005, ISSN: 0034-7752, WOS:000229981900013.
- Ris 19.** Miu, L., Giurginca, M., Budrugaeg, P., **Iftimie (Badea) N.**, Meghea, A., “Principii metodologice pentru evaluarea obiectelor de patrimoniu și pergament (I)”, *Rev. de Chimie*, **56** (3), 248 – 250, 2005, WOS:000229107600012.
- Ris 18.** E. Aldea, **N. Badea**, I. Demetrescu, “Comportarea aliajelor de Ti₆Al₄V în electroliți care simulează biolichide specifice în cavitatea bucală”, *Rev. de Chimie*, **56** (5), 508 – 510, 2005, ISSN: 0034-7752, WOS:000231256800014.
- Ris 17.** Elisa, M., Vasiliu, C., Meghea, A., **Iftimie (Badea) N.**, Giurginca, M., Trodhal, H.J., Dalley, M., „CdSSe doped aluminophosphate glasses obtained by a wet method”, *Physics and Chemistry of Glasses*, **46**, (6), 553-558, 2005; WOS:000232984200016.
- Ris 16.** Meghea, A., Giurginca, M., **Iftimie (Badea) N.**, Miu, L., Bocu, V., Budrugaeg, P., “Behavior to accelerate ageing of some natural biopolymer constituents of parchment”, *Molecular Crystals and Liquid Crystals*, **418**, 285-290, 2004, ISSN: 1542-1406, WOS:000224980600023.
- Ris 15.** **Iftimie (Badea) N.**, Giurginca, M., Meghea, A., “Cuantificarea stresului oxidativ în biosisteme. II. Efectul ozonizării, iradierii UV și peroxidării”, *Rev. de Chimie*, **55** (1), 18 – 21, 2004, ISSN: 0034-7752, WOS:000220186700005.
- Ris 14.** **Iftimie (Badea) N.**, Giurginca, M., Meghea, A., Papadopoulos, K., “Cuantificarea stresului oxidativ în biosisteme. III. Comportarea la peroxidare și iradiere UV a unor vitamine ”, *Rev. de Chimie*, **55** (2), 92 – 94, 2004, ISSN: 0034-7752, ISSN: 0034-7752, WOS:000220567800004.

- Ris 13. Iftimie (Badea) N.,** Giurginca, M., Meghea, A., “Cuantificarea stresului oxidativ în biosisteme. IV. Structuri biologice complexe”, *Rev. de Chimie*, **55** (5), 359 – 362, 2004, ISSN: 0034-7752, WOS:000222576200020
- Ris 12. Iftimie (Badea) N.,** Herdan, J.M., Giurginca, M., Meghea, A., “Chemiluminescence technique for the evaluation of some mineral and vegetable oils protected by antioxidants”, *Rev. de Chimie*, **55** (7), 512-514, 2004, ISSN: 0034-7752, WOS:000223160500010
- Ris 11. M. Giurginca, G. Ivan, N. Iftimie (Badea),** „Protection of vulcanizates by synergistic system of antidegradants”, *Materiale Plastice*, **41** (1), 7 -10, 2004, ISSN 0025-5289, WOS:000220738900002.
- Ris 10. M. Giurginca, N. Iftimie (Badea), G. Ivan,** „Kinetic characteristics of destruction process of elastomer protected by quinoneimines,”, *Materiale Plastice*, **41** (4), 200 -202, 2004, ISSN 0025-5289, WOS:000226663300002.
- Ris 9. Meghea, A., Iftimie (Badea) N.,** Giurginca, M., „Estimarea efectului antioxidant al extractelor din plante prin chemiluminescenta“ *Rev. de Chimie*, **55** (12), 1025-1028, 2004, ISSN: 0034-7752, WOS:000220738900002.
- Ris 8. Ivan, G., Meghea, A., Giurginca, M., Iftimie (Badea) N.,** “Thermooxidative destruction of some elastomers with a high content of 3,4 isoprene units”, *Polymer Degradation and Stability*, **80**, (3), 397 – 402, 2003, ISSN: 0141-3910, WOS:000184497500001.
- Ris 7. Meghea, A., Iftimie (Badea) N.,** Giurginca, M., Papadopoulos, K., “Cuantificarea stresului oxidativ în biosisteme. I. Testarea prin chemiluminescență a activității antioxidante a unor molecule de interes biologic”, *Rev. de Chimie*, **54** (11), 885 – 887, 2003, ISSN: 0034-7752, WOS:000187240300005.
- Ris 6. Iosub, I., Meghea, A., Giurginca, M., Iftimie (Badea) N., Malinovschi, V., Ducu, C.,** “Caracterizarea unor chinone și derivaților acestora prin spectroelectrochimie și chemiluminescență în mediu aprotic”, *Rev. de Chimie*, **54** (10), 819-823, 2003, ISSN: 0034-7752, WOS:000187240100006.
- Ris 5. Emandi A., Calinescu M., Iftimie (Badea) N.,** “Complexes with Mixed (OO) and (ONO) donor groups.PART II. Synthesis and Characterization of VO (IV), Fe(III), Co(II), Ni (II), Cu (II), Zn (II). New Complexes with 1-phenyl-3-methyl-4-azo-(2-carboxy-phenyl)-pyrazol-5-one, 1-(2-benzthiazolyl)-3-methyl-4-azo-(4-nitro-phenyl)-pyrazol-5-one and alylacetoacetate as Ligands”, *Rev. de Chimie*, **54**, 8, 661 – 665, 2003, ISSN: 0034-7752, WOS:000186321000002.
- Ris 4. Emandi, A., Călinescu, M., Iftimie, N.,** Complexes with mixed (OO) and (ONO) donor groups. I. Synthesis and characterization of Ni(II), Pt(II), Cu(II), VO(IV) new complexes with 1-phenyl-3-methyl-4-azo-(2-carboxy-phenyl)-pyrazol-5-one and alylacetoacetate as ligands, *Revista de Chimie* **54** (7) , pp. 569-572, 2003, ISSN: 0034-7752, WOS:000185562900004.
- Ris 3. Ivan, G., Meghea, A., Giurginca, M., Iftimie (Badea) N.,** “Protection of rubber vulcanizates with couples of diamine antidegradants and selected additives”, *Materiale Plastice*, **40** (2), 63 – 66, 2003, ISSN 0025-5289, WOS:000184497500001.
- Ris 2. Totir N., Lete C., Lupu S., Ungureanu E.M., Iftimie N.** The study of the electrochemical deposition of Prussian Blue onto platinum and optically transparent indium-tin oxide electrodes (2002) *Revista de Chimie*, **53** (5) , pp. 346-350, ISSN: 0034-7752, WOS:000177305200006
- Ris 1. Papadopoulos, K., Triantis, T., Tsagaraki, K., Dimotikali, D., Iftimie (Badea) N., Meghea, A.,** “Studies on the photostorage chemiluminescence of aromatic ketones with

reactive oxygen species. Prospects for analytical application”, *J. Photochemistry and Photobiology A, Chemistry*, 152 (1-3) 11-16, 2002, ISSN 1010-6030, WOS:000178202600002.

B. Rio – Alte reviste de specialitate de circulație internațională.

Rio 1. Lacatusu I., **Badea N.**, Meghea A “Effect of surfactants on stability of colloidal sols as precursors in sol-gel encapsulation”, *Key Engineering Materials*, 415, 57-60, 2009, (ISSN: 1013-9826);

Rio 2. Barbinta Patrascu, M.E., **Badea, N.M.**, Tugulea, L., Meghea, A., „Photo-oxidative stress on model membranes – Studies by optical methods”, *Key Engineering Materials*, 415, 29-32, 2009, (ISSN: 1013-9826);

Rio 3. Nichita C., Neagu G., Vulturescu V., Pirvu L., **Badea N.**, Albulescu R., Giurginca M., “Evaluation of scavenger properties of some flavonoidic vegetal extracts obtained from *Crataegus monogyna* Jacq.”, *Key Engineering Materials*, 415, 41-44, 2009, (ISSN: 1013-9826);

Rio 4. F. Dumitru, M. Giurginca, O. Micu, C. Guran, A. Razvan, **N. Badea**, “Synthesis and Characterization of Potentially Antimicrobial Complexes of Zn(II) and Cu(II) with Chlorhexidine as Ligand”, *Key Engineering Materials*, 415, 49-52, 2009, (ISSN: 1013-9826);

Rio 5. **Badea N.**, Jelinek M., Tite T., Prodana M., Campean A., Demetrescu I., “The behavior of sic films fabricated by hybrid laser – magnetron deposition after immersion”, *Key Engineering Materials*, 330-332, 537-541, 2007, (ISSN: 1013-9826);

Rio 6. Elisa, M., Vasiliu, C., Meghea, A., **Iftimie (Badea) N.**, Giurginca, M., Trodahl, H.J., Dalley, M., „CdSSe doped aluminophosphate glasses obtained by a wet method”, *Physics and Chemistry of Glasses*, **46** (6), 553-558, 2005, ISSN: 0031-9090;

Rio 7. Elisa, M., Vasiliu, C., Grigorescu, C.E.A., Grigoras, B., Niciu, H., Niciu, D., Meghea, A., **Iftimie (Badea), N.**, Giurginca, M., Patrascu, R., Trodahl, H.J., Dalley, M., „Characterization of aluminophosphate glasses containing Pr³⁺, Er³⁺, Gd³⁺, and Yb³⁺ ions”, *Advanced Materials Research*, **39-40**, 61-64, 2008, ISSN: 1013-9826;

IV. BREVETE DE INVENȚIE ȘI ALTE TITLURI DE PROPRIETATE INDUSTRIALA SI INTELECTUALA

B - Brevete de invenție

B1. Meghea A., Lăcătușu I., **Badea N.**, Niță R., Iosub I. „Procedeu de imobilizare a extractului de coaja de portocale în matrici gazdă hibride silice – silsesquioxanice”, national patent- nr. 123252/29.04.2011.

- B2.** Nichita, C., Neagu, G., Vulturescu, V.C., Albuiescu, R.N., Nita, S., Bazdoaca C.M., Codorean, E., Albuiescu, L., Meghea, A., **Badea, N.M.**, Popescu, I.D., Tanase, C., Raducan, E., „*Bioproducts flavonoidic vegetal și procedeul de obținere a acestuia*”, nr. 127270/2013
- B3.** Negreanu-Pîrjol, B.S., Negreanu-Pîrjol, T., Meghea, A., Nastac, M., Paraschiv, G.M., Bratu, M.M., Sîrbu, R., Roncea, F.N., Bucur, L.A., **Badea, N.**, Meghea, I., Baltă, A.G., Gheorghiu, A.K., Zuliang, L., Are Pedersen, „*Environmental friendly biocomposite fertilizer and procedure for its obtaining*”, national patent A/00753/20.08.2010;
- B4.** Negreanu-Pîrjol T., Negreanu-Pîrjol B. Ș., Guran C., Călinescu M., Oancea A., Gorun E., Dumitru F., Meghea A., **Badea N.**, Bratu M. M., Bucur L. A., Moldovan L., Coroiu V., Călinescu O., Stoicescu R. M., Nițu B. F., “*Complexi metalici ai clorhexidinei și procedeul de obținere a acestora*” – Cerere de brevet de invenție nr. A/01220/29.11.2010, publicat în B.O.P.I. nr. 6/29.06.2012, Hotărârea OSIM nr. 3/61 din 30.04.2013;
- B5.** Negreanu-Pîrjol T., Negreanu-Pîrjol B. Ș., Guran C., Călinescu M., Oancea A., Gorun E., Roncea F., Dumitru F., Meghea A., **Badea N.**, Țarălungă Ghe., Sîrbu R., Moldovan L., “*Preparate farmaceutice de tip geluri bioadezive pe bază de complexi metalici ai clorhexidinei și procedeul de obținere a acestora*” – Cerere de brevet de invenție nr. A/01221/29.11.2010, publicat în B.O.P.I. nr. 8/30.08.2012, Hotărârea OSIM nr. 3/62 din 30.04.2013;
- B6.** Negreanu-Pîrjol T., Negreanu-Pîrjol B. Ș., Guran C., Călinescu M., Oancea A., Gorun E., Roncea F., Dumitru F., Meghea A., Badea N., Țarălungă Ghe., Amariei C., Moldovan L., “*Preparate farmaceutice de tip ape de gură pe bază de complexi metalici ai clorhexidinei și procedeul de obținere a acestora*” – Cerere de brevet de invenție nr. A/01222/29.11.2010, publicat în B.O.P.I. nr. 8/30.08.2012, Hotărârea OSIM nr. 3/63 din 30.04.2013;
- B7.** Negreanu-Pîrjol T., Negreanu-Pîrjol B. Ș., Guran C., Călinescu M., Oancea A., Gorun E., Roncea F., Dumitru F., Meghea A., **Badea N.**, Țarălungă Ghe., Moldovan L., “*Preparate farmaceutice de tip discuri bioadezive pe bază de complexi metalici ai clorhexidinei și procedeul de obținere a acestora*” – Cerere de brevet de invenție nr. A/01223/29.11.2010, publicat în B.O.P.I. nr. 8/30.08.2012, Hotărârea OSIM nr. 3/64 din 30.04.2013;
- B8.** Negreanu-Pîrjol T., Negreanu-Pîrjol B. Ș., Guran C., Călinescu M., Oancea A., Gorun E., Roncea F., Dumitru F., Meghea A., **Badea N.**, Țarălungă Ghe., Sîrbu R., Moldovan L., Mirea M., “*Preparate farmaceutice de tip creme pe bază de complexi metalici ai clorhexidinei și procedeul de obținere a acestora*” – Cerere de brevet de invenție nr. A/01224/29.11.2010, publicat în B.O.P.I. nr. 8/30.08.2012, Hotărârea OSIM nr. 3/65 din 30.04.2013;
- B9.** Lacatusu I., **Badea N.**, Stan R., Hanganu A., Meghea A., *Nanoparticule lipidice, antioxidante și procedeul de obținere a acestora*, Brevet Nr 128703/2018.
- B10.** Badea G., Lacatușu I., **Badea N.**, Stan R., Meghea A., *Nanotransportori lipidici pe bază de uleiuri vegetale cu proprietăți fotoprotectoare și antioxidante*, Brevet 130098/2018;
- B11.** Lăcătușu I., **Badea N.**, Badea G., Moldovan L., Pandeli I., Rașit I., Popescu M., Bordei N., Stan R., Istrati D., Meghea A., *Nanotransportori lipidici încărcăți cu principii active vegetale și sintetice și procedeul de obținere al acestora*, Brevet Nr 131955/2019.
- B12.** Ionita D, Prodana M., **Badea N.**, Dinischiotu A., Balas M., *Sisteme pe baza de nanotuburi de carbon utilizate în terapia cancerului*, cerere de brevet A00919/2018

B 13. Lacatusu, I., **Badea, N.**, A. Pop, T-A Iordache, C. Pop, , Procedu de incapsulare duala a doua categorii de principii vegetale bioactive in acelasi sistem de distributie nanostructurat, cerere de brevet A00220/2021;

B 14. S. Crisan, M. Pali, A. Pop, Lacatusu, I., **Badea, N.**, Procedeu de obținere a unei forme farmaceutice solide cu administrare orală benefică în terapia menopauzală, ce conține nanostructuri lipidice pe bază de principii active vegetale, cerere de brevet A 2021;

10.04.2022

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