

## Lista de lucrări

a) Lista celor max. 10 lucrări considerate cel mai relevante:

1. **R. Fábíán (Barabás)**, I. Kotsis, P. Zimány, P. Halmos: *Preparation and chemical characterization of high purity fluorapatite*, *Talanta*, 46, 1273-1277, **1998**
2. C.G. Aneziris, J. Hubalkova, **R. Barabás**, *Microstructure evaluation of MgO-C refractories with TiO<sub>2</sub>- and Al-additions*, *Journal of the European Ceramic Society*, 27, 73-78, **2007**
3. **R. Barabás**, E.S. Bogyá, V.R. Dejeu, L. Bizo, Ch. G. Aneziris, T. Kratschmer, P. Schmutz, *Fluorhydroxyapatite coatings obtained by flame spraying deposition*, *International Journal of Applied Ceramic Technology*, 8, 3, 566–571, **2011**
4. B. Szilágyi, N. Muntean, **R. Barabás**, O. Ponta, B.G. Lakatos, *Reaction precipitation of amorphous calcium phosphate: population balance modelling and kinetics*, *Chemical Engineering Research and Design Official journal of the European Federation of Chemical Engineering*, 93, 278-286, **2014**
5. E. S. Bogyá, Z. Károly, **R. Barabás\***, *Atmospheric plasma sprayed silica-hydroxyapatite coatings on magnesium alloy substrates*, *Ceramics International*, Vol. 41, Issue 4, 6005-6012, **2015**
6. **R. Barabás**, G. Katona, E. S. Bogyá, M. V. Diudea, A. Szentes, B. Zsirka, J. Kovács, L. Kékedy-Nagy, M. Czíkó *Preparation and characterization of carboxyl functionalized multiwall carbon nanotubes-hydroxyapatite composites*, *Ceramics International*, Vol. 41, Issue 10, Part A, 12717-12727, **2015**
7. **R. Barabás**, E. de Souza Ávila, L. O. Ladeira, L. Mosqueira Antônio, R. Tötös, D. Simedru, L. Bizo, O. Cadar, *Graphene Oxides/Carbon Nanotubes–Hydroxyapatite Nanocomposites for Biomedical Applications*, *Arabian Journal for Science and Engineering*, 45, 219–227, **2020**
8. **R. Barabás**, N-I. Farkas, Cs. L. Nagy, O. Cadar, C. Moisa, L. Bizo, *Adsorption and desorption behavior of natural and synthetic active compounds*

*on hydroxyapatite-based nanocomposites*, *Ceramics International*, 47 (6), 8584-8592, **2021**

9. N.-I. Farkas, L. Marincea, **R. Barabás\***, L. Bizo, A. Ilea, G. L. Turdean, M. Toşa, O. Cadar, L. Barbu-Tudoran, *Preparation and Characterization of Doxycycline-Loaded Electrospun PLA/HAP Nanofibers as a Drug Delivery System*, *Materials*, 15 (6), **2022**
10. V. Andrei, S. Andrei, A. F. Gal, V. Rus, L.-M. Gherman, B. A. Boşca, M. Niculae, **R. Barabás**, O. Cadar, E. Dinte, D.-M. Muntean, C. P. Peştean, H. Rotar, A. Boca, A. Chiş, M. Tăut, S. Candrea and A. Ilea, *Immunomodulatory Effect of Novel Electrospun Nanofibers Loaded with Doxycycline as an Adjuvant Treatment in Periodontitis*, *Pharmaceutics*, 15(707), **2023**

b) **Teză de doctorat:** *Modificarea proprietăților materialelor bioceramice pe bază de hidroxiapatită prin substituții cu ioni de  $F^-$*

c) **Brevete:**

1. Al. Pop, V. Miclăuș, **R. Barabás**, S. Drăgan, V. Mitre, I. Mitre: Compoziție de îngrășământ foliar pe bază de calciu, și procedeu de obținere, nr. 123139, **2010**
2. V. Mitre, I. Mitre, Al. Pop, **R. Barabás**, E. Bogyá, V. Dejeu: Compoziție de îngrășământ foliar pe bază de azot, fosfor și potasiu, și procedeu de obținere, nr. 123140, **2010**
3. **R. Barabás**, Al. Pop: Compoziție fungicidă cuprică și procedeu de obținere a acesteia, nr. 122617, **2009**
4. **R. Barabás**, Al. Pop, Cs. Pajzs: Compoziție fungicidă pe bază de săruri ale acidului N,N-etilen-bis-tiocarbamic și procedeu de obținere, nr. 122830, **2010**
5. Al. Pop, P.S Agachi, R. Barabás: Procedeu de desarseniere a soluțiilor puizate de carbonat de potasiu, nr. 123494, **2012**
6. **R. Barabás**, J. Fazakas, A. Pop, L. Bizo: Material de construcții din deșeurile de lemn, nr. 127891, **2013**

*Cereri de brevete:*

1. **Barabás Réka**, Barabás László., Bizo Liliana: Sistem de monitorizare la distanță a unor parametri de reacție pentru obținerea hidroxiapatitei, Nr. 2018 00995, **2018**

2. Ilea Aranka, **Barabás Réka**, Bizo Liliana Antonela, Cadar Oana, Boșca Adina Bianca, Dinte Elena, *Matrice cu efect antimicrobian local și imunomodulator general pe bază de Doxiciclină încapsulată în nanofibre de acid polilactic și hidroxiapatită*, Cererea de brevet de invenție nr. A/00385/05.07.2022.
3. Dinte Elena, Muntean Dana Maria, Ilea Aranka, **Barabás Réka**, Bizo Liliana Antonela, Cadar Oana, Boșca Adina Bianca, *Compoziție de sistem mucoadeziv pentru eliberare topică a Doxiciclinei la nivelul cavității orale*, Cererea de brevet de invenție nr. A/00445/25.07.2022.
4. Oprița Elena Iulia, Crăciunescu Oana, Seciu-Grama Ana Maria, **Barabás Réka**, Fazakas-Ráduly Orsolya-Csilla, Fazakas József, Moldovan Lucia, *Compoziție de hidrogel compozit pe bază de componente ceramice și naturale pentru regenerarea defectelor osteocondrale și procedeu de obținere*, Cerere brevet OSIM A/00427 din 19.07.2022.

d) **Capitol de carte:**

M. Aluaș, Ș. Simion: Metode experimentale avansate pentru studiul și analiza bio-nano-sistemelor; Cap: Analiza suprafețelor specifice (**R. Barabás**), Casa Cărții de Știință, 2012, ISBN 978-606-17- 0115-5

e) **Publicații ISI:**

1. **R. Fábíán (Barabás)**, I. Kotsis: *Comparison of properties of fluorapatites prepared by solid state reaction and precipitation*, Hungarian Journal of Industrial Chemistry, 27, 259-263, **1999**
2. E.S. Bogyá, **R. Barabás**, V.R. Dejeu, Al. Csavdari, I. Baldea, *Hydroxyapatite modified with silica used for sorption of copper(II)*, Chemical Papers, 63 (5) 568–573, **2009**
3. V.R. Dejeu, **R. Barabás**, Al. Pop, E.S. Bogyá, P.Ș. Agachi, *Mathematical Modeling for the Crystallization Process of Hydroxyapatite Obtained by Precipitation in Aqueous Solution*, Studia UBB Chemia, 3, 61-69, **2009**
4. V.R. Dejeu, **R. Barabás**, Al. Pop, E.S. Bogyá, P.S. Agachi, *Kinetic studies for the transformation process of beta-whitlockite in hydroxyapatite*, Revista de Chimie, 12, 1251-1253, **2009**

5. V.R. Dejeu, **R. Barabás**, A.M. Cormos, E.S. Bogya, P.S. Agachi *Growth rate of hydroxyapatite crystals obtained by precipitation*, Studia UBB Chemia, 2, 179-188, **2010**
6. E.S. Bogya, I. Bâldea, **R. Barabás**, A. Csavdári, G. Turdean, V.R. Dejeu, *Kinetic studies of sorption of copper (II) ions onto different calciumhydroxyapatite materials*, Studia UBB Chemia, 2, 363-373, **2010**
7. Dejeu, V.R.\* , Toader, S., Barabas R, Agachi, P.-S., *Application of numerical methods in the technology of hydroxyapatite*, Studia Universitatis Babes-Bolyai Chemia, Issue 4, Pages 161 - 165, **2010**
8. A.C. Dancu, **R. Barabás**, E.S. Bogya: *Adsorption of nicotinic acid on the surface of hydroxyapatite and structurally modified hydroxyapatite*, Central European Journal of Chemistry, 9, 4, 660-669, **2011**
9. E.S. Bogya, M. Czikó, G. Szabó, **R. Barabás**, *The red beetroot extract antioxidant activity and adsorption kinetics onto hydroxyapatite-based materials*, Journal of the Iranian Chemical Society, 491-503, **2013**
10. **R. Barabás**, M. Czikó, I. Dékány, L. Bizo, E. S. Bogya, *Comparative study of particle size analysis for hydroxyapatite-based nanomaterials*, Chemical Papers 67 (11), 1414-142, **2013**
11. M. Czikó, E. S. Bogya, **R. Barabás**, L. Bizo, *In vitro biological activity comparison of some hydroxyapatite-based composite materials using simulated body fluid*, Central European Journal of Chemistry, 11 (10), 1583-1598, **2013**
12. E. S. Bogya, M. Czikó, **R. Barabás**, A. Csavdári, *Influence of synthesis method of nano-hydroxyapatite based materials on cadmium sorption processes*, Journal of the Iranian Chemical Society 11, 53–68, **2014**
13. B. Szilágyi, **R. Barabás**, *Continuous precipitation: a model based stability analysis*, Studia UBB Chemia, 3, 155-166, **2013**
14. B. Szilágyi, **R. Barabás**, B. G. Lakatos, *Modelling and simulation of particle size distribution of precipitates in continuous tubular crystallizers*, Periodica Polytechnica Chemical Engineering, **2015**
15. M. Szávuly, R. Csonka, G. Speier, **R. Barabás**, M. Giorgi, J. Kaizer, *Oxidation of 2-aminophenol by iron (III) isoindoline complexes*, Journal of Molecular Catalysis A: Chemical, 392, 120-126, **2014**
16. M. Czikó, E. S. Bogya, M. V. Diudea, **R. Barabás\***, *Research on hydroxyapatite based composite materials*, Revue Roumaine De Chimie, 59(5), 353-357, **2014**

17. E. Nagy, M. Guttmann, Zs. Molnár-Kovács, **R. Barabás\***, *Multi-method analysis of bronze age ceramics from Satu-Mare county, Romania*, *Studia UBB Chemia*, LX, 4, 21-34, **2015**
18. M. Czikó, E. S. Bogyá, Cs. Paizs, G. Katona, Z. Konya, Á. Kukovecz, **R. Barabás\***, *Albumin adsorption study onto hydroxyapatite-multiwall carbon nanotube-based composites*, *Materials Chemistry and Physics*, Vol. 12, 314-325, **2016**
19. **R. Barabás**, N. Muntean, G. Szabó, K. Maurer, L. Bizo, *Preparation and characterization of new biomaterials by anthocyanins adsorption on hydroxyapatite-based materials*, *Studia UBB Chemia*, LXII, 4, Tom II, 253-268, **2017**
20. **R. Barabás**, M. Rigó, M. Eniszné-Bódogh, C. Moisa, O. Cadar, *Preparation and characterization of hydroxyapatite based nano-composite biomorphic implants*, *Studia UBB Chemia*, LXIII, 3, 137-154, **2018**
21. **R. Barabás**, M. Rigó, M. Sárközi, M-A. Hoaghia, O. Cadar, *Hydroxyapatite - carbon nanotubes composites for drug delivery applications*, *Brazilian Journal of Chemical Engineering*, 36 (02) 913-922, **2018**
22. C.I. Fort, G.-L. Turdean, **R. Barabás**, D. Popa, A. Ispas, M. Constantiniuc, *Study of the hydrogen peroxide based whitening gel on the corrosion of dental metallic alloys*, *Studia Universitatis Babes-Bolyai Chemia*, LXIV, 1, 125 - 133, 2019.
23. L. Almásy, A-M. Putz, Q. Tian, G.P. Kopitsa, T. V. Khamova, **R. Barabás**, M. Rigó, A. Bóta, A. Wacha, M. Mirica, B. Taranu, C. Savii, *J. Serb. Chem. Soc.* 84 (0) 1-13, **2019**
24. A. Ilea, O. Vrabie, A. Băbțan, V. Miclăuș F. Ruxanda, M. Sárközi, Lucian Barbu-Tudoran, Voicu Mager, C. Berce, B. Boșca, N. Petrescu, O. Cadar, R. Câmpian, **R. Barabás**, *Osseointegration of titanium scaffolds manufactured by selective laser melting in rabbit femur defect model*, *Journal of Materials Science: Materials in Medicine*, 30:26, **2019**
25. **R. Barabás**, D. Deemter, G. Katona, G. Batin, L. Barabás, L. Bizo, O. Cadar, *Comparative study on physico-chemical and mechanical characterization of new nano-carbon based hydroxyapatite nanocomposites*, *Turkish Journal of Chemistry*, 43, 809- 824, **2019**
26. M. I. Szávuly, Á. Tóos, **R. Barabás\***, B. Szilágyi, *From modeling to virtual laboratory development of a continuous binary distillation column for engineering education using MATLAB and LabVIEW*, *Computer Applications in Engineering Education*, 27(5), 1019-1029, **2019**

27. C. Moisa, O. Cadar, R. Barabas, L.G. Vicas, M.-A. Hoaghia, E.A. Levei, C. Jurca, C. Berce, Influence of magnesium compounds on sodium, potassium and calcium levels in different mice organs, *FARMACIA*, 67, 2, 274 - 281, **2019**
28. A. Ilea, D. Timus, N. B. Petrescu, O. Soritau, B. A. Bosca, V. Mager, L. Barbu-Tudoran, A. M. Băbțan, R. Septimiu Campian, **R. Barabás**, *An in vitro Study on the Biocompatibility of Titanium Implants Made by Selective Laser Melting*, *Biotechnology and Bioprocess Engineering*, 24, 782–792, **2019**
29. L. Bizo, K. Sabo, **R. Barabás**, G. Katona, L. Barbu-Tudoran, A. Berar: *Structural, morphological and dissolution properties of ZrO<sub>2</sub>-based biocomposites for dental applications*, *Studia UBB Chemia LXV*, 1, **2020**
30. A. Berar, M. Mureșan-Pop, L. Barbu-Tudoran, **R. Barabás\***, L. Bizo: *High-temperature solid-state synthesis of Mg-doped ZrO<sub>2</sub>: structural, optical and morphological characterization*, *Studia UBB Chemia*, LXV, 2, **2020**
31. A.-M. Băbțan, D. Timus, O. Soritau, B. A. Bosca, **R. Barabás**, A. Ionel, N. B. Petrescu, C. N. Feurdean, I. R. Bordea, G. Saraci, S. C. Vesa, A. Ilea, *Tissue Integration and Biological Cellular Response of SLM-Manufactured Titanium Scaffolds*, *Metals*, 10(9), 1192, **2020**
32. **R. Barabás**, C. I. Fort, G. L. Turdean, L. Bizo: *Influence of HAP on the Morpho-Structural Properties and Corrosion Resistance of ZrO<sub>2</sub>-Based Composites for Biomedical Applications*, *Crystals*, 11(2), 202, **2021**
33. J.-H. Bartha-Vári, R. Elekes-Darabont, L.-E. Barabás, **R. Barabás\***, *Immobilization of phenylalanine ammonia-lyase on hydroxyapatite and hydroxyapatite composites*, *STUDIA UBB CHEMIA*, LXVI, 1, 165-178, **2021**
34. A. Moldovan, M.-A. Hoaghia, A. I. Török, M. Roman, I. C. Mirea, **R. Barabás**, V. Micle, O. Cadar, *Spatial Variation of Water Chemistry in Aries River Catchment Western Romania*, *Applied Sciences*, 11(14), 6592, **2021**
35. L. Marincas, G. L. Turdean, M. Tosa, Zs. Kovács, B. Kovács, **Réka Barabás\***, N.-I. Farkas\*, and L. Bizo, *Hydroxyapatite and Silicon-Modified Hydroxyapatite as Drug Carriers for 4-Aminopyridine*, *Crystals*, 11, 1124, **2021**
36. C. Moisa, O. Cadar, E. A. Levei, L. Mureșan, M. Ganea, S. Nemeth, S. Cavalu, L. Dobjanschi, M. Zdrinca, **R. Barabás**, F. Bănică, *Compatibility study between magnesium orotate and various excipients in their physical mixtures*, *Farmacia*, 70 (3), **2022**

37. V. Andrei, N. I. Fiț 2, I. Matei, **R. Barabás**, L. A. Bizo, O. Cadar, B. A. Boșca, N.-I. Farkas, L. Marincea, D.-M. Muntean, E. Dinte, A. Ilea, *In Vitro Antimicrobial Effect of Novel Electrospun Polylactic Acid/Hydroxyapatite Nanofibres Loaded with Doxycycline*, *Materials*, 15(18), **2022**
38. H. Petrut, A. Vészi, N. Muntean, O. Cadar, **R. Barabás\***, *Mathematical Modelling of the Electrospinning Process for Production of Polyvinyl Alcohol Nanofibers*, *Studia Chemia*, LXVII (3), **2022**
39. E. Dinte, D. M. Muntean, V. Andrei, B. A. Boșca, C. M. Dudescu, L. Barbu-Tudoran, G. Borodi, S. Andrei, A. F. Gal, V. Rus, L.-M. Gherman, O. Cadar, **R. Barabás**, M. Niculae, A. Ilea, *In vitro and in vivo characterisation of a mucoadhesive buccal film loaded with doxycycline hyclate for topical application in periodontiti*, *Pharmaceutics*, 15(580), **2023**
40. **R. Barabás**, O. Cadar, L. Bizo, *Comparative study of two commercial stoneware pastes for plastic shaping by pottery wheel*, *Studia UBB Chemia*, LXVIII, 1, 91-104, **2023**
41. L. Bizo, M. Mureșan-Pop, **R. Barabás**, L. Barbu-Tudoran, A. Berar, *In Vitro Degradation of Mg-Doped ZrO<sub>2</sub> Bioceramics at the Interface with Xerostom® Saliva Substitute Gel*, *Materials*, 16 (2680), **2023**
42. L. Marincea, N.-I. Farkas, L. Barbu-Tudoran, **R. Barabás**, M. I. Toșa, *Deep eutectic solvent PCL-based nanofibers as drug delivery system*, *Materials Chemistry and Physics*, in press, **2023**
43. N.-I. Farkas, G. L. Turdean, L. Bizo, L. Marincea, O. Cadar, L. Barbu-Tudoran, **R. Barabás**, *The effect of chemical composition and morphology on the drug delivery properties of hydroxyapatite-based biomaterials*, *Ceramics International*, in press, **2023**

#### **Publicații BDI:**

1. **R. Fábíán (Barabás)**, I. Kotsis: *Chemical characterization of fluorhydroxyapatites plasma spraying powders and plasma-sprayed coatings*, *Advances in Technology of Materials and Materials Processing Journal (ATM)*, 1, 18-23, **1998**.
2. K. Künstler, H.-J. Lang, **R. Fábíán (Barabás)**, G. Tomandl: *Synthesis, structure and electrochemical properties of In-doped BaTbO<sub>3</sub> in High Temperature Materials Chemistry*, K. Hilpert, F. W. Froben, L. Singheiser (Eds), *Proceedings I, II, Forschungszentrum Jülich GmbH*, 687-693, **2000**

3. **R. Barabás**, Al. Pop, E. Fazakas, V. Dejeu, Comparative analyses of fluorapatite and biomedical fluorhydroxyapatites prepared by precipitation and solid state reaction, *The 10th International Conference and Exhibition of the European Ceramic Society*, 17-21 June 2007, Berlin, 27, 73-78, Proc. 10th ECerS Conf., Göller Verlag, Baden-Baden, 925-930, ISBN: 3-87264-022-4, **2007**
4. V.R. Dejeu, **R. Barabás**, Al. Pop, E.S. Bogyá, I.L. Arpad., P.S. Agachi, Application of mathematical modeling in the technology of biomaterials, *18<sup>th</sup> European Symposium on Computer Aided Process Engineering – ESCAPE 18*, Elsevier, Editor: Bertrand Braunschweig and Xavier Joulia , 978-0-444-53227-5, books.elsevier.com, P. 1-5, **2008**
5. E.S. Bogyá, **R. Barabás**, L. Bizo, V.R. Dejeu, Preparation and characterization of silicate hydroxyapatites used for copper sorption, *11<sup>th</sup> International Conference and Exhibition of the European Ceramic Society*, Krakow, 21-25 June 2009, Polish Ceramic Society (supported by Polish Ministry of Science and Higher Education), ISBN 978-83-60958-54-4, **2009**
6. J. Fazakas, **R. Barabás**, I. Bartalis, Zs. Turoczy, E. Fazakas, Composite materials from red mud (wastes), *Termotehnica, Anul XV, 2S/2011*, ISSN-L 1222 – 4057, *Ingineria mediului aplicată la instalații termoelectrice*, pag. 13, **2011**

f) **Publicații la conferințe:**

1. **R. Barabás**, Al. Csavdari, I. Baldea, E.S. Bogyá, V.R. Dejeu, P.S. Agachi, Study of copper adsorption mechanism on hydroxyapatites, *14th International Conference of Chemistry*, 13-15 Nov. 2008, Cluj-Napoca, ISSN: 1843-6293, Societatea Maghiară Tehnico-Științifică din Transilvania, 131-134, **2008**
2. J. Fazakas, **R. Barabás**, I. Bartalis, E. Fazakas, Zs. Turoczy, Posibilități de utilizare a nămolului roșu, *INCD ECOIND – International symposium – SIMI 2011 "The environment and industry"*, Bucharest, Romania, 16-18 november 2011, ISSN 1843-5831, 236-241, **2011**
3. B. Szilágyi, P. Ș. Agachi, **R. Barabás**, B. G. Lakatos, Coupled Population Balance-CFD Modelling of a Continuous Precipitation Reactor, *Proceedings of the 24<sup>th</sup> European Symposium on Computer Aided Process Engineering-ESCAPE 24*, Budapest, Hungary, 15-18 June 2014, ISSN 1570-7946, 187-192, **2014**



### **Conferințe naționale și internaționale:**

1. **R. Fábíán (Barabás)**, I. Kotsis: Materials for Artificial Bone Substitute, *Conference of Oxide Materials*, Hungarian Academy, Veszprem, Hungary, 24.10.1995
2. **R. Fábíán (Barabás)**, I. Kotsis: Calcium Phosphate Ceramics, *XVIII. Chemical Conference*, Szeged, Hungary, 06-08.11.1995
3. **R. Fábíán (Barabás)**, I. Kotsis: Fluorapatite as additive material to artificial bone substitute, *Euroforum '96*, Veszprém, Hungary, 04.09-06.09.1996
4. **R. Fábíán (Barabás)**, I. Kotsis: Preparation and characterization of fluorapatite, *Conference of Young Scientists*, Hungarian Academy, Veszprem, Hungary, 12.05.1997
5. **R. Fábíán (Barabás)**, I. Kotsis: Chemical characterization of bioceramics, ELTE, *Conference of Microstructure and Mechanical Properties of Ceramics*, Budapest, Hungary, 02-03.06.1997
6. **R. Fábíán (Barabás)**, I. Kotsis: Chemical characterization of fluorhydroxyapatites plasma- spraying powders and plasma-sprayed coatings, *The 4th IUMRS International Conference in Asia, Makuhari*, Chiba, Japan, 16.09-18.09.1997.
7. **R. Barabás**, A. Pop, E. Fazakas, V. Dejeu, Comparative analyses of fluorapatite and biomedical fluorhydroxyapatites prepared by precipitation and solid state reaction, *The 10<sup>th</sup> International Conference and Exhibition of the European Ceramic Society*, 17-21 June, Berlin, 2007
8. V.R. Dejeu, **R. Barabás**, Al. Pop, E.S. Bogyá, A. Imre-Lucaci, P.S. Agachi, Application of mathematical modeling in the technology of biomaterials, *18<sup>th</sup> European Symposium on Computer Aided Process Engineering-ESCAPE 18*, June 1-4, Lyon-France, 2008
9. E.S. Bogyá, V.R. Dejeu, Al. Csavdari, **R. Barabás**, P.S. Agachi, Characterization of structurally modified hydroxyapatites through ionic exchange and adsorption processes, *International Conference of Physical Chemistry ROMPHYSICHEM 13* September 3 - 5, Bucharest – Romania, 2008
10. E.S. Bogyá, **R. Barabás**, Al. Csavdari, I. Baldea, V.R. Dejeu, P.S. Agachi, *Study of copper adsorption mechanism on hydroxyapatites*, *14<sup>th</sup> International Conference of Chemistry*, 13-15 Nov. 2008, Cluj-Napoca, ISSN: 1843-6293, Societatea Maghiara Tehnico-Stiintifica din Transilvania, P. 131-134

11. **R. Barabás**, E.S. Bogya, V.R. Dejeu, Al. Csavdari, Al. Pop, *Hydroxyapatite modified with SiO<sub>2</sub> used in retaining processes of Cu<sup>2+</sup> ions*, 8<sup>th</sup> Conference on Solid State Chemistry, Bratislava, 06.-11.07.2008, SSC 2008, Editor: Jana Valuchova, 978-80-224-1019-9, Chemical Abstract Service (CAS), P. 127-128, **2008**
12. E.S. Bogya, **R. Barabás**, L. Bizo, V.R. Dejeu, Preparation and characterization of silicate hydroxyapatite used for copper sorption, 11<sup>th</sup> international conference and exhibition of the European ceramic society, Krakow, 21-25 June 2009, Polish ceramic society, ISBN 978-83-60958-45-2, **2009**
13. **R. Barabás**, E.S. Bogya, L. Bizo, V. Dejeu, New silica containing hydroxyapatite coatings by flame spraying deposition, *Solid State Chemistry* **2010**, 10-15 September 2010, Prague, Editors J. Demel and T. Matys Grygar, ISBN 97-80-904678-0-4, P. 91.
14. **R. Barabás**, E.S. Bogya, V. Dejeu, Theoretical and applied perspectives in the research of apatites, 16<sup>th</sup> International Conference of Chemistry, 11-14 Nov **2010**, Cluj-Napoca, ISSN: 1843-6293, Societatea Maghiara Tehnico-Stiintifica din Transilvania, P. 48
15. J. Fazakas, **R. Barabás**, E. Fazakas, L'application de nano - poudres ceramique par "flamespraying" sur des differentes surfaces, *DEUXIEME COLLOQUE francophone PLUridisciplinaire sur les Matériaux, l'Environnement et l'Electronique*, PLUMEE 2011, 30 mai – 1er juin **2011**, Limoges, France
16. E.S. Bogya, **R. Barabás**, L. Bizo, M. Cziko, Preparation and application of nanosized hydroxyapatite compounds, *EuroNanoForum 2011*, Budapest, Hungary, 30 May – 1 June **2011**
17. L. Bizo, **R. Barabás**, M. Cziko, E.S. Bogya, A. M. Cormos, Preparation and structural characterization of nanosized chitosan/ hydroxyapatites, *European Conference on Solid State Chemistry, ECSSC 2011*, Lund/Suedia, 25-28 september **2011**
18. **R. Barabás**, New perspectives in apatite research, 11<sup>th</sup> International Symposium on "Metal Elements in Environment, Medicine and Biology" - MEEMB 2011, Cluj-Napoca, Romania, 5<sup>th</sup> December **2011**
19. M. Cziko, E.S. Bogya, **R. Barabás**, L. Bizo, Hydroxyapatite composites particle size changes with time, *XVII. International Conference on Chemistry*, 23. page, Cluj Napoca, 03.11.**2011**
20. B. Szilágyi, N. Muntean, **R. Barabás**, A. Borsos, B. Lakatos, Analysis of a semi-batch reactor crystallizer using the Quadrature Method of Moment, *Department of crystallization and pharmaceutical formulation, Roundtable Conference*, 26-27. 10. **2012.**, Balatonszemes, Hungary

21. M. I. Szávuly, B. Szilágyi, Á. Tóos, **R. Barabás**, Á. Imre, Experimental Validation of the Mathematical Model of the Rectification Process, *Computer Aided Process Engineering (CAPE) Forum*, **2012**, Veszprém, Hungary
22. M. Czíkó, **R. Barabás**, L. Bizo, E.S. Bogya, Testing of hydroxyapatite based materials behavior in water and in SBF, *XVIII. International Conference on Chemistry*, pag. 23, Băile Felix, Romania, 23.11.2012
23. R. Zoltán, M. Czíkó, E.S. Bogya, **R. Barabás**, Cadmium ions sorption studies on hydroxyapatite based materials, *XVIII International Conference on Chemistry*, pag. 129, Băile Felix, Romania, 23.11.2012
24. B. Szilágyi, N. Muntean, **R. Barabás**, B. Lakatos, Modeling and Optimization of the Hydroxyapatite Formation in a Semi-Batch Crystallizer with the Quadrature method of Moments, *International Conference for Chemistry*, Baile Felix, Romania, **2012**
25. M. Czíkó, E.S. Bogya, **R. Barabás**, G. Katona, A. Szentes, Testing of Carbon nanotubes/Hydroxyapatite/Ibuprophen behavior in simulated body fluid, *Conference of „Environment friendly materials and technologies”*, Veszprém, Hungary, 01-03. 06.2013
26. J. Bálint, D.K. Tímár, M. Czíkó, **R. Barabás**, G. Katona, Preparation and characterization of carbon nanotubes- hydroxyapatite based composites, *XIX. International Conference on Chemistry*, pag. 97, Baia Mare, Romania, 21-23. 11. **2013**
27. B. Csákány, E. Vizi, M. Czíkó, **R. Barabás**, L. Kékedy - Nagy, G. Katona, Behavioral study of hydroxyapatite – carbon nanotube composites in simulated body fluid, *XIX. International Conference on Chemistry*, pag. 101, Baia Mare, Romania, 21-23. 11. **2013**
28. M. Czíkó, **R. Barabás**, E.S. Bogya, G. Katona, Preparation and examination of hydroxyapatite based composites, *XIX. International Conference on Chemistry*, pag. 39, Baia Mare, Romania, 21-23. 11. **2013**
29. E.S. Bogya, Z. Károly, M. Czíkó, **R. Barabás**, Silica doped hydroxyapatite coating deposition by plasma spraying, *XIX. International Conference on Chemistry*, page 74, Baia Mare, Romania, 21-23. 11. **2013**
30. B. Szilágyi, **R. Barabás**, B. Lakatos, Modeling the Formation of Hydroxyapatite Precursor Amorphous Calcium Phosphate Formation with Population Balance Models, *Computer Aided Process Engineering (CAPE) Forum*, Graz, Austria, **2013**
31. B. Szilágyi, **R. Barabás**, B. Lakatos, Modeling and Simulation of the Particle Size Distribution of Precipitates in Continuous Tubular Crystallizer, *Conference for Chemical Engineering*, Veszprém, Hungary, **2013**

32. B. Szilágyi, P.S. Agachi, **R. Barabás**, B. Lakatos, Continuous precipitation of calcium phosphat: population balance modeling in ideal and real mixing conditions, *XIX. International Conference on Chemistry*, page 49, Baia Mare, Romania, 21-23.11.2013
33. M. Czíkó, **R. Barabás**, E.S. Bogya, G. Katona, Preparation and Characterization of Hydroxyapatite-carbon nanotubes biocomposites, PhD Conference, Szeged, Hungary, 01.03.2014
34. M. Czíkó, E.S. Bogya, **R. Barabás**, Nano-hydroxyapatite based materials synthesis method influence on Cd<sup>2+</sup> sorption mechanism, 4th International Conference Natura – Econ, Sfântu Gheorghe, 07.03.2014
35. M. Czíkó, **R. Barabás**, Preparation and characterization of hydroxyapatite based biomaterials, Jedlik Ányos Professional Days, Veszprém, Hungary, 11-13. 04. 2014
36. M. Sárközi, B. Csákány, **R. Barabás**, G. Katona, E.S. Bogya, Albumine adsorption study on hydroxyapatite based composites, *XX. International Conference on Chemistry*, page 39, Cluj Napoca, 6-9.11.2014
37. M. Sárközi, R. Zoltán, **R. Barabás**, L. Kékedy-Nagy, E.S. Bogya, Preparation of magnesium substituted hydroxyapatite, *XXI. International Conference on Chemistry*, page 46, Şumuleu Ciuc, 23-27.09.2015
38. A.-M. PUTZ, L. Almásy, **R. Barabas**, M. Rigo, G. P. Kopitsa, T. V. Khamova, M. Mirica, B. Țăranu, A. Bóta, A. Wacha, Q. Tian, C. Savii, Mesoporous Silica based drug delivery systems. The loading capacity and the release profile of the ketoprofen from the matrix, , The 10 Th Edition Of The Symposium With International Participation "*New Trends And Strategies In The Chemistry Of Advanced Materials With Relevance In Biological Systems, Technique And Environmental Protection*", June 08-09, 2017, Timișoara, România
39. H. Petruț, R. Szabó, Á. Zsebe, I. Kelemen, R. Mátyás, P. Váradi, D. Vincze, Z. Kovács, R. **Barabás**, L. Barabás, *The Preparation of Hydroxyapatite in Laboratory Using „IoT” for pH and Temperature Control*, XXIII. International Conference on Chemistry, Deva, Romania, 25-28.10.2017
40. M. Rigó, R. Barabás, M. Enisz-Bódogh , *Adsorption-desorption Investigation of Biomorphic Implants*, XXIII. International Conference on Chemistry, Deva, Romania, 25.10.2017
41. N.-I. Farkas, L. Marinceş, R. **Barabás**, *Investigation of the in vitro release mechanism of different active ingredients from nanohydroxyapatite-based nanocomposites*, XXIII. International Conference on Chemistry, Cluj Napoca, 30.10.2020

42. Oprita EI, Ciucan T, Seciu-Grama AM, **Barabás R.**, Fazakas-Raduly OC, Craciunescu O, *Biodegradable Cross-linked Composite Hydrogels based on Natural Components and Si-BTCP Enriched with Icaritin for Osteochondral Regeneration*, Malaysian Journal of Medicine and Health Sciences Vol.18 Supp 7, **May 2022** (eISSN 2636-9346)
43. EI. Oprita, T. Ciucan, A.M. Seciu-Grama, R. Tatia, **R. Barabás**, O.C. Raduly-Fazakas , A.M. Gheorghe, O Craciunescu, *Biodegradable Crosslinked Composite Hydrogels Based on Natural Components and Akermanite Enriched with Small Molecules for Osteochondral Regeneration*, eCM Periodical, 2022, Collection 2; eCM Conference Abstracts (P18)

16.05.2023