

Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Facultatea: Inginerie Chimică și Biotehnologii

Departamentul: Chimie anorganică, Chimie-Fizică & Electrochimie

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A. Teza de doctorat

Teză de doctorat

D. Berger, *Sinteza și proprietățile unor oxizi ai lantanoidelor cu metale de tip d*, conducător științific Prof. Dr. Ioana Jitaru.

Teză de abilitare

D. Berger, *Contribuții la sinteza prin metode neconvenționale în soluție a unor nanomateriale anorganice* – sept 2013.

B. Cărți și capitole în cărți publicate în ultimii 10 ani

1. RA Mitran, M Deaconu, C Matei, D Berger, Mesoporous Silica as Carrier for Drug-Delivery Systems, *Nanocarriers for Drug Delivery*, 2019, pp. 351-374
2. R.A.Mitran, **D. Berger**, C. Matei, Azobenzene: Aspects, Applications and Research; Chapter 2. Recent Advances in Hybrid Azobenzene-Silica Materials; Editor Linda E. Watson, Nova Science Publisher Inc., (ISBN: 978-1-53610-684-8), New York, 2017.
3. A.C. Ianculescu, **D.C Berger**, C.A Vasilescu, M. Olariu, B.S Vasile, L.P Curecheriu, A. Gajovic, R. Trusca, Incorporation Mechanism and Functional Properties of Ce-Doped BaTiO₃ Ceramics Derived from Nanopowders Prepared by the Modified Pechini Method, *Nanoscale Ferroelectrics and Multiferroics: Key Processing and Characterization Issues and Nanoscale Effects*, vol 1 (2016) Edited by M. Alguero, J. Marty Gregg, L. Mitoseriu, John Wiley & Sons, pp.13-43.

C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

1. Lincu, D., Ioniță, S., Deaconu, M., Papa, F., Trică, B., Matei, C. Berger, D., Mitran, R.A., Optimizing nanocasting techniques for stable bismuth-mesoporous silica composites in thermal energy storage application, *Sustainable Materials and Technologies* 42 (2024) e01157.
2. Abduraman A., Brezoiu A.M., Tatia R., Iorgu A.I., Deaconu M., Mitran R.A., Matei C., Berger D.*, Mesoporous Titania Nanoparticles for a High-end Valorization of Vitis Vinifera Grape Marc Extracts, *Inorganics* 2024, 12, 263. <https://doi.org/10.3390/inorganics12100263>, IF = 3.1.
3. S. Ioniță, R.-C. Popescu, I. N. Irimescu, M. Deaconu, N. Tarbă, C. Matei, M. Mihailescu, D.-I. Savu, D. Berger*, Role of mesoporous silica functionalized with boronic acid derivative in targeted delivery of doxorubicin and co-delivery of doxorubicin and resveratrol, *Microporous and Mesoporous Materials*, volume 375, July 2024, 113176, doi.org/10.1016/j.micromeso.2024.113176

4. Deaconu, M.; Abduraman, A.; Brezoiu, A.-M.; Sedky, N.K.; Ioniță, S.; Matei, C.; Ziko, L.; Berger, D.* Anti-Inflammatory, Antidiabetic, and Antioxidant Properties of Extracts Prepared from Pinot Noir Grape Marc, Free and Incorporated in Porous Silica-Based Supports. *Molecules* 2024, 29, 3122. <https://doi.org/10.3390/molecules29133122>
5. M. Deaconu, A.-M. Prelipcean, A.-M. Brezoiu, R.-A. Mitran, A.-M. Seciu-Grama, C. Matei, D. Berger, Design of scaffolds based on zinc-modified marine collagen and bilberry leaves extract-loaded silica nanoparticles as wound dressings, *Int. J. Nanomedicine*, 2024:19 7673–7689.
6. Brezoiu, AM; Deaconu, M.; Mitran, RA.; Prelipcean, AM; Matei, C; Berger, D.* , Optimisation of Polyphenols Extraction from Wild Bilberry Leaves-Antimicrobial Properties and Stability Studies, *Molecules* 23 (2023) 5795, eISSN 1420-3049, DOI10.3390/molecules28155795, WOS:001046268200001
7. Dumbrava, A; Matei, C.; Diacon, A.; Moscalu, F; Berger, D. Novel ZnO-biochar nanocomposites obtained by hydrothermal method in extracts of *Ulva lactuca* collected from Black Sea, *Ceramics International* 49 (2023), 10003-10013, ISSN 0272-8842, DOI10.1016/j.ceramint.2022.11.178, WOS:000944615100001
8. Deaconu, M., Prelipcean, AM; Brezoiu, AM ; Mitran, RA ; Isopencu, G ; Matei, C ; Berger, D* , Novel Collagen-Polyphenols-Loaded Silica Composites for Topical Application, *Pharmaceutics* 15 (2023), 312, eISSN 1999-4923, DOI10.3390/pharmaceutics15020312, WOS:000940774300001
9. D. Lincu, S. Ioniță, B. Trică, D.C Culita, C. Matei, D. Berger*, R.-A. Mitran*, Bismuth-mesoporous silica-based phase change materials for thermal energy storage, *Applied Materials Today* 29 (2023) 101663, DOI10.1016/j.apmt.2022.101663, ISSN 2352-9407, WOS:000883883700004.
10. Miclea, LC, Mihailescu, M., Tarba, N., Brezoiu, AM, Sandu, AM, Mitran, RA, Berger, D., Matei, C., Moiescu, MG, Savopol, T. Evaluation of intracellular distribution of folate functionalized silica nanoparticles using fluorescence and hyperspectral enhanced dark field microscopy, *Nanoscale* 14 (2022), 12744-12756, DOI10.1039/d2nr01821g, WOS:000843636500001, IF=8.307.
11. A.M. Brezoiu, A.M. Prelipcean, D. Lincu, M. Deaconu; E. Vasile, R. Tatia, A.M. Seciu-Grama, C. Matei, D. Berger, Nanoplatforms for irinotecan delivery based on mesoporous silica modified with a natural polysaccharide, *Materials* 2022, 15(19), 7003; <https://doi.org/10.3390/ma15197003>, WOS:000719484000001.
12. R.A. Mitran, D. Lincu, D. Berger, C. Matei, FDU-12 cubic mesoporous silica as matrix for phase change materials using bismuth or stearic acid, *Journal of Thermal Analysis and Calorimetry* 2022, DOI10.1007/s10973-022-11588-x, WOS:000852366300001, IF= 4.755.
13. Lincu, D., Ionita, S., Mocioiu, O.C., Berger, D., Matei, C. Mitran, R.A,. Aluminum doping of mesoporous silica as a promising strategy for increasing the energy storage of shape stabilized phase change materials containing molten NaNO₃: KNO₃ eutectic mixture, *J. Energy Storage* 49 (2022) Article Number104188, 10.1016/j.est.2022.104188, WOS:000780267700001, IF=8.907
14. S. Ioniță, D. Lincu, R.-A. Mitran, L. Ziko, N.K Sedky, M. Deaconu, A.-M. Brezoiu, C. Matei, **D. Berger***, Resveratrol Encapsulation and Release from Pristine and Functionalized Mesoporous Silica Carriers, *Pharmaceutics* 14 (2022) 203.
15. C.-G. Chisega-Negrilă, A. Diacon, I. Călinescu, M. Vinătoru, D. Berger, C. Matei, G. Vasilievici, On the ultrasound-assisted preparation of Cu/SiO₂ system as a selective catalyst for the conversion of biobutanol to butanal, *Chemical Papers* 76(3) (2022),1443-1455, <https://doi.org/10.1007/s11696-021-01945-9>.
16. A. Gaspar-Pintiliescu, E. D. Anton, A. Iosageanu, D. Berger, C. Matei, R.-A. Mitran, T. Negreanu-Pirjol, O. Craciunescu, L. Moldovan, Enhanced Wound Healing Activity of Undenatured Type I Collagen Isolated from Discarded Skin of Black Sea Gilthead Bream

- (*Sparus aurata*) Conditioned as 3D Porous Dressing, *Chemistry & Biodiversity* 18(8) (2021), e2100293
17. A. Diacon, E. Rusen, F. Rizea, A. Ghebaur, D. Berger, R. Şomoghi, A. Matei, P. Palade, O. Tutunaru, One-pot strategy for obtaining magnetic PMMA particles through ATRP using Fe (CO) 5 as co-initiator, *European Polymer Journal* 152 (2021) 110446.
 18. L. M. Stefan, A. Iosageanu, D. Ilie, A.-M. Stanciuc, C. Matei, D. Berger, O. Craciunescu, Extracellular matrix biomimetic polymeric membranes enriched with silver nanoparticles for wound healing, *Biomedical Materials* 16 (3) (2021), 035010.
 19. G. Dobrescu, F. Papa, R. State, M. Raciulete, D. Berger, I. Balint, N.I. Ionescu, Modified Catalysts and Their Fractal Properties, *Catalysts* 11 (2021) 1518.
 20. M. Prundeanu, A.-M. Brezoiu, M. Deaconu, G. Gradisteanu Pircalabioru, D. Lincu, C. Matei, D. Berger, Mesoporous Silica and Titania-Based Materials for Stability Enhancement of Polyphenols, *Materials* 14 (2021) 6457.
 21. M. Prundeanu, A.M. Brezoiu, M. Deaconu, D. Berger, Chemical Profiling of Polyphenols from *Salvia officinalis* and *Thymus serpyllum* Extracts during a Three-Stage Extraction Process, *UPB Sci. Bull. Ser. B* 83, 1-16.
 22. RA Mitran, S Ioniță, D Lincu, D Berger, C Matei, A review of composite phase change materials based on porous silica nanomaterials for latent heat storage applications, *Molecules* 26 (2021) 241.
 23. R.-A. Mitran, D. Lincu, L. Buhălţeanu, D. Berger, C. Matei, Shape-stabilized phase change materials using molten NaNO₃–KNO₃ eutectic and mesoporous silica matrices, *Solar Energy Materials and Solar Cells* 215 (2020) 110644.
 24. R.-A. Mitran, D. Lincu, S. Ioniță, M. Deaconu, V.V. Jerca, O.C. Mocioiu, D. Berger, C. Matei, High temperature shape–stabilized phase change materials obtained using mesoporous silica and NaCl–NaBr–Na₂MoO₄ salt eutectic, *Solar Energy Materials and Solar Cells*, 218 (2020) 110760.
 25. V. Buda, A.-M. Brezoiu, **D. Berger***, I. Zinuca Pavel, D. Muntean, D. Minda, C.A. Dehelean, C. Soica, Z. Diaconeasa, R. Folescu, C. Danciu, Biological Evaluation of Black Chokeberry Extract Free and Embedded in Two Mesoporous Silica-Type Matrices, *Pharmaceutics* 2020, 12, 838; doi:10.3390/pharmaceutics12090838 (23 pages)
 26. A.-M. Brezoiu, L. Bajenaru, **D. Berger***, R.-A. Mitran, M. Deaconu, D. Lincu, A. Stoica Guzun, C. Matei, M. G. Moisescu, T. Negreanu-Pirjol, Effect of Nanoconfinement of Polyphenolic Extract from Grape Pomace into Functionalized Mesoporous Silica on Its Biocompatibility and Radical Scavenging Activity, *Antioxidants* 2020, 9, 696 (24 pages) doi:10.3390/antiox9080696.
 27. A.-M. Brezoiu, D. Lincu, M. Deaconu, R.-A. Mitran, **D. Berger**, C. Matei, Enhanced Stability of Polyphenolic Extracts from Grape Pomace Achieved by Embedding Into mesoporous Silica-Type Matrices, *U.P.B. Sci. Bull., Series B*, 82(3), 2020, 3-20.
 28. M. Deaconu, A.-M. Brezoiu, R.-A. Mitran, I. Nicu, B. Manolescu, C. Matei, **D. Berger***, Exploiting the zwitterionic properties of lomefloxacin to tailor its delivery from functionalized MCM-41 silica, *Microporous and Mesoporous Materials* 305 (2020) 110323, doi.org/10.1016/j.micromeso.2020.110323
 29. A.-M. Brezoiu, M. Prundeanu, D. Berger, M. Deaconu, C. Matei, O. Oprea, E. Vasile, T. Negreanu-Pirjol, D. Muntean, C. Danciu, Properties of *salvia officinalis* L. and *thymus serpyllum* L. extracts free and embedded into mesopores of silica and titania nanomaterials, *Nanomaterials* 2020, 10, 820 (21 pages); doi:10.3390/nano10050820.
 30. R.D. Pavaloiu, F. Sha'at, C. Bubueanu, M. Deaconu, G. Neagu, M. Sha'at, M. Anastasescu, M. Mihailescu, C. Matei, G. Nechifor, **D. Berger***, Polyphenolic Extract from *Sambucus ebulus* L. Leaves Free and Loaded into Lipid Vesicles, *Nanomaterials* 10(1) (2020) article number: 56, DOI: 10.3390/nano10010056 WOS:000516825600056.

31. P. Palade, C. Comanescu, A. Kuncser, D. Berger, C. Matei, N. Iacob, V. Kuncser, Mesoporous Cobalt Ferrite Nanosystems Obtained by Surfactant-Assisted Hydrothermal Method: Tuning Morpho-structural and Magnetic Properties via pH-Variation, *Nanomaterials* 10 (2020) 476; doi:10.3390/nano10030476.
32. Sha'at, F., Pavaloiu, R.-D., Hlevca, C., Sha'at, M., Berger, D., Nechifor, G., In vitro release kinetics of poorly water-soluble cardiovascular drugs from PEG-nanoparticles, *UPB Scientific Bulletin, Series B: Chemistry and Materials*, 82 (2020) 103-112
33. M. Deaconu, L. Pintilie, E. Vasile, R.A. Mitran, G. Gradisteanu Pircalabioru, C. Matei, M.C. Chifiriuc, **D. Berger***, Norfloxacin delivery systems based on MCM-type silica carriers designed for the treatment of severe infections, 238 (2019) Article Number: UNSP 121886, DOI: 10.1016/j.matchemphys.2019.121886, WOS:000490046000010.
34. C. Matei, L. Buhalteanu, D. Berger, R.A. Mitran, Functionalized mesoporous silica as matrix for shape-stabilized phase change materials, *Int. J. Heat and Mass Transfer* 144 (2019) Article no: 118699, DOI: 10.1016/j.ijheatmasstransfer.2019.118699, WOS:000494883300093.
35. R.A. Mitran, S. Petrescu, S. Somacescu, O.C. Mocioiu, L. Buhalteanu, D. Berger, C. Matei, Nanocomposite phase change materials based on NaCl-CaCl₂ and mesoporous silica, *J. Thermal Anal. Calorimetry* 138 (2019) 2555-2563, doi:10.1007/s10973-019-08489-x, WOS:000499703500018.
36. A.M. Brezoiu, C. Matei, M. Deaconu, A.M. Stanciuc, A. Trifan, A. Gaspar-Pintiliescu, **D. Berger***, Polyphenols extract from grape pomace. Characterization and valorisation through encapsulation into mesoporous silica-type matrices, *Food Chem. Toxicol.* 133 (2019) article number: 110787, DOI:10.1016/j.fct.2019.110787, WOS:000491684000050
37. A. Dumbrava, D. Berger, C. Matei, G. Prodan, F. Aonofriesei, MD Radu, F. Moscalu, New Composite Nanomaterials with Antimicrobial and Photocatalytic Properties Based on Silver and Zinc Oxide, *J. Inorg. Organometallic Polymers Mater.* 29 (2019) 2072-2082, doi:10.1007/s10904-019-01166-4, WOS:000490341000022.
38. C. Matei, D. Berger, A. Dumbrava, M.D. Radu, E. Gheorghe, Calcium carbonate as silver carrier in composite materials obtained in green seaweed extract with topical applications, *J. Sol-Gel Sci. Technol.* 93 (2020) 315-323 DOI:10.1007/s10971-019-05145-6, WOS:000496839400001.
39. A. Gaspar-Pintiliescu, L.M. Stefan, E.D. Anton, D. Berger, C. Matei, T. Negreanu-Pirjol, L. Moldovan, Physicochemical and Biological Properties of Gelatin Extracted from Marine Snail *Rapana venosa*, *Marine Drugs* 17 (2019) article Number: 589, doi: 10.3390/md17100589, WOS:000498064500049.
40. A-M. Brezoiu, M. Deaconu, Ioana Nicu, E. Vasile, R.-A. Mitran, C. Matei, **D. Berger***, Heteroatom modified MCM-41-silica carriers for Lomefloxacin delivery systems, *Micropor. Mesopor. Mater.* 275 (2019) 214-222.
41. M Deaconu, I Nicu, R Tincu, AM Brezoiu, RA Mitran, E Vasile, C Matei, **D. Berger***, Tailored doxycycline delivery from MCM-41-type silica carriers, *Chemical Papers*, <https://doi.org/10.1007/s11696-018-0457-z>, 72 (2018) 1869-1880.
42. M. Deaconu, L. Pintilie, R.-A. Mitran, C. Matei, **D. Berger***, Solubility enhancement of poorly water-soluble norfloxacin by encapsulation into SBA-15-type silica carriers, *U.P.B. Sci. Bull., Series B*, 80(4) (2018) 3-16.
43. R.-A. Mitran, C. Matei, **D. Berger***, L. Băjenaru, M.G Moisescu, Controlling drug release from mesoporous silica through an amorphous, nanoconfined 1-tetradecanol layer, *European Journal of Pharmaceutics and Biopharmaceutics* 127 (2018) 318-325, WOS:000433650400035
44. Dumbrava, A; Berger, D; Matei, C; Radu, MD ; Gheorghe, E, Characterization and applications of a new composite material obtained by green synthesis, through deposition of zinc oxide onto calcium carbonate precipitated in green seaweeds extract, *Ceramics International* 44 (2018) 4931-4936.

45. R.A. Mitran, D. Berger, C. Matei, Improving thermal properties of shape-stabilized phase change materials containing lauric acid and mesocellular foam silica by assessing thermodynamic properties of the non-melting layer, *Thermochimica Acta* 660 (2018) 70-76 ,WOS:000426226200009.
46. A. Dumbrava, D. Berger, G. Prodan, M. Badea, R. Olar, F. Moscalu, A. Diaconu, A study on thermal degradation of zinc oxide nanopowders functionalized with anthocyanins, in correlation with their properties and applications, *Applied Physics A* 124 (12) (2018) p. 819
47. F. Papa, D. Berger, G. Dobrescu, R. State, N. I Ionescu, Correlation of the Sr-dopant content in $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$ with catalytic activity for hydrogen peroxide decomposition, *Revue Roumaine de Chimie* 63(5-6) 447-453.
48. **D. Berger**, D. Georgescu, L. Bajenaru, A. Zanfır, N. Stănică, C. Matei, Properties of mesostructured silica coated CoFe_2O_4 versus Fe_3O_4 -silica composites, *J. Alloys Comp.* 708 (2017) 278–284.
49. D. Georgescu, A.-M. Brezoiu, R.-A. Mitran, D. Berger, C. Matei, B. Negreanu-Pirjol, Mesostructured silica–titania composites for improved oxytetracycline delivery systems, *Comptes Rendus Chimie* a. 20 (2017) p.1017-1025
50. R.-A. Mitran, D. Berger, J. Pandele-Cusu, C. Matei, Effect of Aluminum Incorporation into Mesoporous Aluminosilicate Framework on Drug Release Kinetics, *Journal of Nanomaterials* Volume 2017, Article ID 9864396, 9 pages, doi: 10.1155/2017/9864396.
51. A.Dumbrava, **D. Berger***, G. Prodan, C. Matei, F. Moscalu, A. Diaconu, The influence of Triton X-100 surfactant on the morphology and properties of zinc sulfide nanoparticles for applications in azo dyes degradation, *Materials Chemistry and Physics* 193 (2017) 316-328.)
52. A. Dumbrava, D. Berger, G. Prodan, F. Moscalu, A. Diaconu, Considerations about the Dependence of PEGylated ZnS Nanoparticles Properties on the Synthesis Method. *Zeitschrift für Physikalische Chemie*, 232(1), 2017, 61-77. doi:10.1515/zpch-2017-0005
53. T.I Sibianu, G. Dimitrakis, J. Katrib, C. Matei, D. Berger, C.Dodds, A.V Surdu, I. Calinescu, D.J Irvine, Utilization of Dielectric Properties Assessment to Evaluate the Catalytic Activity and Rate of Deactivation of Heterogeneous Catalysts, *Industrial & Engineering Chemistry Research* 56 (2017) 1940-1947
54. T.I. Sibianu, D. Berger, C. Matei, I. Calinescu, Microwave assisted Fischer-Tropsch synthesis at a atmospheric pressure, *Revista de Chimie* 68 (2017) 1040-1043
55. D. Georgescu, C. Matei, N. Stanica, **D. Berger***, Mesoporous ferrites obtained in the presence of pluronic copolymer for potential biomedical applications, *UPB Scientific Bulletin, Series B: Chemistry and Materials Science* 79 (2017) 13-22.
56. T.I. Sibianu, D. Berger, C. Matei, I. Calinescu, Fischer Tropsch synthesis using a Co-based catalyst deposited on ALSBA-15 under atmospheric pressure, *U.P.B. Sci. Bull., Series B*, 78 (2016) 39-46.
57. R.-A. Mitran, C. Matei, **D. Berger***, Correlation of Mesoporous Silica Structural and Morphological Features with Theoretical Three-Parameter Model for Drug Release Kinetics, *Journal of Physical Chemistry C* 120 (2016) 29202–29209.
58. **D. Berger.**, S. Nastase, R.-A. Mitran, M. Petrescu, E. Vasile, C. Matei, T. Negreanu-Pirjol, Mesostructured silica and aluminosilicate carriers for oxytetracycline delivery systems, *Int. J. Pharm.*, 510 (2016) 524-531.
59. A.Stoica-Guzun, M. Stroescu, S.I. Jinga, N. Mihalache, A. Botez, C. Matei, **D. Berger**, C.M. Damian, V. Ionita, Box-Behnken experimental design for chromium(VI) ions removal by bacterial cellulose-magnetite composites, *International Journal of Biological Macromolecules*, 91 (2016) 1062-1072
60. M. Petrescu, R.-A. Mitran, C. Matei, **D. Berger***, Mesoporous silica-ceria composites as carriers for drug delivery systems, *Revue Roumaine de Chimie* 61 (2016) 557-563. (FI=0.246)

61. R.A. Mitran, D. Georgescu, N. Stănică, C. Matei, **D. Berger***, Coating magnetite nanoparticles with mesostructured silica shell of different pore size and geometry, *Revista Română de Materiale / Romanian Journal of Materials* 2016, 46 (4) 437-443, WOS:000390552600006
62. C. Lete, D. Berger, C. Matei, S. Lupu, Electrochemical and microgravimetric studies of poly[3,4-ethylenedioxythiophene]-tyrosinase biocomposite material electrodeposited onto gold electrodes by a sinusoidal voltages method, *Journal of Solid State Electrochemistry* 20 (2016) 3043-3051.
63. A.Dumbravă, D. Berger, G. Prodan, F. Muscalu, Functionalized ZnO/CdS composites: synthesis, characterization and photocatalytic applications, *Chalcogenide Letters* 13(2016) 105-115
64. R.-A. Mitran, **D. Berger**, C. Munteanu, C. Matei, Evaluation of different mesoporous silica supports for energy storage in shape-stabilized phase change materials with dual thermal responses, *J. Phys. Chem. C* 119 (2015) 15177-15184.
65. M. Petrescu, R. A. Mitran, A.M. Luchian, C. Matei, **D. Berger**, Mesoporous ceria-silica composites as carriers for doxycycline, *U.P.B. Sci. Bull., Series B* 77 (2015) 13-24.
66. **D. Berger**, L. Bajenaru, S. Nastase, R.-A. Mitran, C. Munteanu, C. Matei, Influence of structural, textural and surface properties of mesostructured silica and aluminosilicate carriers on aminoglycoside uptake and in vitro delivery, *Micropor. Mesopor. Mater.* 206 (2015) 150-160.
67. A.I. Iorgu, F. Maxim, C. Matei, L.P. Ferreira, P. Ferreira, M.M. Cruz, **D. Berger***, Fast synthesis of rare-earth (Pr^{3+} , Sm^{3+} , Eu^{3+} and Gd^{3+}) doped bismuth ferrite powders with enhanced magnetic properties, *J. Alloys Comp.* 629 (2015) 62-68.
68. R.A. Mitran, S. Nastase, C. Matei, **D. Berger***, Tailoring the dissolution rate enhancement of aminoglutethimide by functionalization of MCM-41 silica: a hydrogen bonding propensity approach, *RSC Adv.* 5 (2015) 2592-2601, DOI: 10.1039/C4RA11224E.
69. A.Dumbravă, G. Prodan, **D. Berger**, M. Bica, Properties of PEG-capped CdS nanopowders synthesized under very mild conditions, *Powder Technology, Issue Part A, January 01* (2015) 197-204.

E. Brevete obținute în întreaga activitate

1. A.C. Ianculescu, G. Voicu, **D. Berger**, L. Mitoșeriu, F. Prihor, Procedeu de preparare a soluțiilor solide de tip $\text{BiFeO}_3\text{-BaTiO}_3$ de înaltă puritate și produs ceramic cu proprietăți dielectrice și feromagnetice optime obținut prin acesta, RO123236B1, 30.03.2011, BOPI nr. 3/2011.
2. C. Matei, **D. Berger**, S. Stoleriu, Procedeu de depunere a unor straturi oxidice ceramice, OSIM, RO 127660/30.09.2015, BOPI nr. 9/2015.
3. **D. Berger**, S. Nastase, C. Matei, Procedeu de preparare a aluminosilicaților mezostructurați în prezența n-butildietanolaminei, RO 130218/30.01.2017, BOPI nr. 1/2017
4. **D. Berger**, C. Matei, R.A. Mitran, Materiale compozite ce conțin silice mezoporoasă, substanță biologică activă și un agent de control al eliberării, procedeu de obținere și aplicații ale acestora ca sisteme cu eliberare controlată, brevet de invenție RO 131769 B1/ 30.10.2018, BOPI nr. 10/2018