Прилог1

РЕПУБЛИКА СРБИЈА

УНИВЕРЗИТЕТ У БЕОГРАДУ
ФАКУЛТЕТ ЗА ФИЗИЧКУ ХЕМИЈУ

ДИПЛОМА

О СТЕЧЕНОМ НАУЧНОМ СТЕПЕНУ
ДОКТОРА НАУКА

ВЕСЕЛИНОВИЋ (Миладин) ЉИЉАНА

РОЂЕНА 23. ДЕЦЕМБРА 1975. ГОДИНЕ У СМЕДЕРЕВУ, РЕПУБЛИКА СРБИЈА, ДАНА 10. МАЈА 2010. ГОДИНЕ СТЕКЛА ЈЕ АКАДЕМСКИ НАЗИВ МАГИСТРА ТЕХНИЧКИХ НАУКА, А 27. СЕПТЕМБРА 2016. ГОДИНЕ ОДБРАНИЛА ЈЕ ДОКТОРСКУ ДИСЕРТАЦИЈУ НА ФАКУЛТЕТУ ЗА ФИЗИЧКУ ХЕМИЈУ ПОД НАЗИВОМ „КРИСТАЛНА СТРУКТУРА И ЕЛЕКТРИЧНЕ КАРАКТЕРИСТИКЕ $BaTi_{1-x}Sn_xO_3$ И $CaCu_3Ti_{4-x}Ru_xO_{12}$ ПЕРОВСКИТНИХ МАТЕРИЈАЛА".

НА ОСНОВУ ТОГА ИЗДАЈЕ ЈОЈ СЕ ОВА ДИПЛОМА О СТЕЧЕНОМ НАУЧНОМ СТЕПЕНУ

ДОКТОРА ФИЗИЧКОХЕМИЈСКИХ НАУКА

Редни број из евиденције о издатим дипломама 15949

У Београду, 10. априла 2018. године

(М. П.)

ДЕКАН

др Гордана Ћирић-Марјановић

РЕКТОР

др Владимир Бумбаширевић

Република Србија
МИНИСТАРСТВО ПРОСВЕТЕ,
НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА
Комисија за стицање научних звања

Прилог 2

Број: 660-01-00001/683
18.07.2017. године
Б е о г р а д

На основу члана 22. став 2. члана 70. став 4. Закона о научноистраживачкој делатности ("Службени гласник Републике Србије", број 110/05, 50/06 – исправка, 18/10 и 112/15), члана 3. ст. 1. и 3. и члана 40. Правилника о поступку, начину вредновања и квантитативном исказивању научноистраживачких резултата истраживача ("Службени гласник Републике Србије", број 24/16, 21/17 и 38/17) и захтева који је поднео

Инсшишуш шехничких наука САНУ у Беоīраду

Комисија за стицање научних звања на седници одржаној 18.07.2017. године, донела је

ОДЛУКУ
О СТИЦАЊУ НАУЧНОГ ЗВАЊА

Др Љиљана Веселиновић

стиче научно звање
Научни сарадник

у области природно-математичких наука - хемија

О Б Р А З Л О Ж Е Њ Е

Инсшишуш шехничких наука САНУ у Беоīраду

утврдио је предлог број 436/2 од 02.12.2016. године на седници Научног већа Института и поднео захтев Комисији за стицање научних звања број 469/1 од 16.12.2016. године за доношење одлуке о испуњености услова за стицање научног звања ***Научни сарадник***.

Комисија за стицање научних звања је по претходно прибављеном позитивном мишљењу Матичног научног одбора за хемију на седници одржаној 18.07.2017. године разматрала захтев и утврдила да именована испуњава услове из члана 70. став 4. Закона о научноистраживачкој делатности ("Службени гласник Републике Србије", број 110/05, 50/06 – исправка,18/10 и 112/15), члана 3. ст. 1. и 3. и члана 40. Правилника о поступку, начину вредновања и квантитативном исказивању научноистраживачких резултата истраживача ("Службени гласник Републике Србије", број 24/16, 21/17 и 38/17) за стицање научног звања ***Научни сарадник***, па је одлучила као у изреци ове одлуке.

Доношењем ове одлуке именована стиче сва права која јој на основу ње по закону припадају.

Одлуку доставити подносиоцу захтева, именованој и архиви Министарства просвете, науке и технолошког развоја у Београду.

ПРЕДСЕДНИК КОМИСИЈЕ

Др Станислава Стошић-Грујичић,
научни саветник

С. Стошић-Грујичић

МИНИСТАР

Младен Шарчевић

Прилог 3

ИЗВЕШТАЈ О ЦИТИРАНОСТИ ДР ЉИЉАНЕ ВЕСЕЛИНОВИЋ
(према индексним базама *Web of Science Core Collection* и *Scopus*, на дан 24. 12. 2021)

укупан број цитата: 528
хетероцитати: 443
h-индекс = 13

1. Markovic S, Veselinovic L, Lukic MJ, Karanovic L, Bracko I, Ignjatovic N, Uskokovic D. Synthetical bone-like and biological hydroxyapatites: a comparative study of crystal structure and morphology. *Biomedical Materials*. 2011;6(4):045005. https://doi.org/10.1088/1748-6041/6/4/045005

Хетероцитати

1. Akazawa H. Characterization of crystallographic orientation and lattice disorder in hydroxyapatite thin films by Raman scattering. *CERAMICS INTERNATIONAL*. 2022;48(1):624–631. https://doi.org/10.1016/j.ceramint.2021.09.141
2. Altundal S, Gross K, Laurenti M, Lopez-Cabarcos E, Rubio-Retama J. Transformation kinetics of potassium and magnesium modified high-performance brushite cement to carbonated apatite in blood-mimicked condition. *MATERIALS TODAY COMMUNICATIONS*. 2021;29. https://doi.org/10.1016/j.mtcomm.2021.102838
3. Berberi A, Samarani A, Nader N, Noujeim Z, Dagher M, Kanj W, Mearawi R, Salemeh Z, Badran B. Physicochemical Characteristics of Bone Substitutes Used in Oral Surgery in Comparison to Autogenous Bone. *BIOMED RESEARCH INTERNATIONAL*. 2014;2014. https://doi.org/10.1155/2014/320790
4. Bozkurt O, Bilgin M, Evis Z, Pleshko N, Severcan F. Early Alterations in Bone Characteristics of Type I Diabetic Rat Femur: A Fourier Transform Infrared (FT-IR) Imaging Study. *APPLIED SPECTROSCOPY*. 2016;70(12):2005–2015. https://doi.org/10.1177/0003702816671059
5. Brasinika D, Koumoulos E, Kyriakidou K, Gkartzou E, Kritikou M, Karoussis I, Charitidis C. Mechanical Enhancement of Cytocompatible 3D Scaffolds, Consisting of Hydroxyapatite Nanocrystals and Natural Biomolecules, Through Physical Cross-Linking. *BIOENGINEERING-BASEL*. 2020;7(3). https://doi.org/10.3390/bioengineering7030096
6. Buchilin N, Stroganova E, Mikhailenko N, Sarkisov P, Paleari A. Crystallization-controlled pore retention in calcium-phosphate glassceramics from powder sintering of CaO-P2O5-B2O3-Al2O3-TiO2-ZrO2 glass. *JOURNAL OF NON-CRYSTALLINE SOLIDS*. 2013;373:42–50. https://doi.org/10.1016/j.jnoncrysol.2013.04.037
7. Castro F, Ferreira A, Rocha F, Vicente A, Teixeira J. Characterization of intermediate stages in the precipitation of hydroxyapatite at 37 degrees C. *CHEMICAL ENGINEERING SCIENCE*. 2012;77:150–156. https://doi.org/10.1016/j.ces.2012.01.058
8. Clavijo-Mejia G, Hermann-Munoz J, Rincon-Lopez J, Ageorges H, Munoz-Saldana J. Bovine-derived hydroxyapatite coatings deposited by high-velocity oxygen-fuel and atmospheric plasma spray processes: A comparative study. *SURFACE & COATINGS TECHNOLOGY*. 2020;381. https://doi.org/10.1016/j.surfcoat.2019.125193
9. da Silva J, Machado T, Martins T, Assis M, Foggi C, Macedo N, Beltran-Mir H, Cordoncillo E, Andres J, Longo E. alpha-AgVO3 Decorated by Hydroxyapatite (Ca-10(PO4)(6)(OH)(2)): Tuning Its Photoluminescence Emissions and Bactericidal Activity. *INORGANIC CHEMISTRY*. 2019;58(9):5900–5913. https://doi.org/10.1021/acs.inorgchem.9b00249
10. Danilchenko S, Kuznetsov V, Stanislavov A, Kalinkevich A, Starikov V, Moskalenko R, Kalinichenko T, Kochenko A, Lu J, Shang J, Yang S. The mineral component of human cardiovascular deposits: morphological, structural and crystal-chemical characterization. *CRYSTAL RESEARCH AND TECHNOLOGY*. 2013;48(3):153–162. https://doi.org/10.1002/crat.201200443
11. de Oliveira I, Raniero L, Leite V, Castro-Raucci L, de Oliveira P, Pandolfelli V. In vitro apatite-forming ability of calcium aluminate blends. *CERAMICS INTERNATIONAL*. 2017;43(13):10071–10079. https://doi.org/10.1016/j.ceramint.2017.05.026

12. de Oliveira I, Vieira G, dos Santos K, Raniero L, Castro-Raucci L, de Oliveira P, Fornari C, Pandolfelli V. Improving the Radiopacity of Calcium Aluminate Cement Based Blends. *MATERIALS RESEARCH-IBERO-AMERICAN JOURNAL OF MATERIALS*. 2018;21(2). https://doi.org/10.1590/1980-5373-MR-2017-0599
13. Deymier A, Nair A, Depalle B, Qin Z, Arcot K, Drouet C, Yoder C, Buehler M, Thomopoulos S, Genin G, Pasteris J. Protein-free formation of bone-like apatite: New insights into the key role of carbonation. *BIOMATERIALS*. 2017;127:75–88. https://doi.org/10.1016/j.biomaterials.2017.02.029
14. 1.
15. Drouet C, Combes C. Apatitic and tricalcic calcium phosphate-based bioceramics: Overview and perspectives. *Encyclopedia of Materials: Technical Ceramics and Glasses*. Vols. 3–3. 2021 https://doi.org/10.1016/B978-0-12-803581-8.12090-9
16. Drouet C, Rey C. Nanostructured calcium phosphates for hard tissue engineering and nanomedicine. *Nanostructured Biomaterials for Regenerative Medicine*. 2019 https://doi.org/10.1016/B978-0-08-102594-9.00008-5
17. Drouet C, Leriche A, Hampshire S, Kashani M, Stamboulis A, Iafisco M, Tampieri A. Types of ceramics: Material class. *Advances in Ceramic Biomaterials: Materials, Devices and Challenges*. 2017 https://doi.org/10.1016/B978-0-08-100881-2.00002-6
18. Ezekiel I, Kasim S, Ismail Y, Noor A. Nanoemulsion synthesis of carbonated hydroxyapatite nanopowders: Effect of variant CO32-/PO43- molar ratios on phase, morphology, and bioactivity. *CERAMICS INTERNATIONAL*. 2018;44(11):13082–13089. https://doi.org/10.1016/j.ceramint.2018.04.128
19. Fathyunes L, Khalil-Allafi J, Sheykholeslami S, Moosavifar M. Biocompatibility assessment of graphene oxide-hydroxyapatite coating applied on TiO2 nanotubes by ultrasound-assisted pulse electrodeposition. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2018;87:10–21. https://doi.org/10.1016/j.msec.2018.02.012
20. Fathyunes L, Khalil-Allafi J. Effect of employing ultrasonic waves during pulse electrochemical deposition on the characteristics and biocompatibility of calcium phosphate coatings. *ULTRASONICS SONOCHEMISTRY*. 2018;42:293–302. https://doi.org/10.1016/j.ultsonch.2017.11.041
21. Fathyunes L, Khalil-Allafi J. The effect of graphene oxide on surface features, biological performance and bio-stability of calcium phosphate coating applied by pulse electrochemical deposition. *APPLIED SURFACE SCIENCE*. 2018;437:122–135. https://doi.org/10.1016/j.apsusc.2017.12.133
22. Gamelas J, Martins A. Surface properties of carbonated and non-carbonated hydroxyapatites obtained after bone calcination at different temperatures. *COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS*. 2015;478:62–70. https://doi.org/10.1016/j.colsurfa.2015.03.044
23. Hammami K, El Feki H, Marsan O, Drouet C. Adsorption of nucleotides on biomimetic apatite: The case of adenosine 5 ’ monophosphate (AMP). *APPLIED SURFACE SCIENCE*. 2015;353:165–172. https://doi.org/10.1016/j.apsusc.2015.06.068
24. Hossain M, Mahmud M, Sultana S, Bin Mobarak M, Islam M, Ahmed S. Coupled effect of particle size of the source materials and calcination temperature on the direct synthesis of hydroxyapatite. *ROYAL SOCIETY OPEN SCIENCE*. 2021;8(9). https://doi.org/10.1098/rsos.210684
25. Huang W, Restrepo D, Jung J, Su F, Liu Z, Ritchie R, McKittrick J, Zavattieri P, Kisailus D. Multiscale Toughening Mechanisms in Biological Materials and Bioinspired Designs. *ADVANCED MATERIALS*. 2019;31(43). https://doi.org/10.1002/adma.201901561
26. Kacarevic Z, Rider P, Alkildani S, Retnasingh S, Pejakic M, Schnettler R, Gosau M, Smeets R, Jung O, Barbeck M. An introduction to bone tissue engineering. *INTERNATIONAL JOURNAL OF ARTIFICIAL ORGANS*. 2020;43(2):69–86. https://doi.org/10.1177/0391398819876286
27. Kolmas J, Przadka R. Benign Odontogenic Tumors Versus Histochemically Related Tissues: Preliminary Results from Mid-Infrared and Solid-State Nuclear Magnetic Resonance Spectroscopy. *APPLIED SPECTROSCOPY*. 2014;68(6):663–671. https://doi.org/10.1366/13-07264
28. Konishi T, Horiguchi Y, Mizumoto M, Honda M, Oribe K, Morisue H, Ishii K, Toyama Y, Matsumoto M, Aizawa M. Novel chelate-setting calcium-phosphate cements fabricated with wet-synthesized hydroxyapatite powder. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE*. 2013;24(3):611–621. https://doi.org/10.1007/s10856-012-4834-9
29. Kuang Z, Dai G, Wan R, Zhang D, Zhao C, Chen C, Li J, Gu H, Huang W. Osteogenic and antibacterial dual functions of a novel levofloxacin loaded mesoporous silica microspheres/nano-hydroxyapatite/polyurethane composite scaffold. *GENES & DISEASES*. 2021;8(2):193–202. https://doi.org/10.1016/j.gendis.2019.09.014

30. Kumar C, Dhanaraj K, Vimalathithan R, Ilaiyaraja P, Suresh G. Structural, Morphological and Anti-Bacterial Analysis of Nanohydroxyapatite Derived from Biogenic (SHELL) and Chemical Source: Formation of Apatite. *IRANIAN JOURNAL OF MATERIALS SCIENCE AND ENGINEERING*. 2021;18(1):91–109. https://doi.org/10.22068/ijmse.18.1.10
31. Kumar G, Karunakaran G, Girija E, Kolesnikov E, Minh N, Gorshenkov M, Kuznetsov D. Size and morphology-controlled synthesis of mesoporous hydroxyapatite nanocrystals by microwave-assisted hydrothermal method. *CERAMICS INTERNATIONAL*. 2018;44(10):11257–11264. https://doi.org/10.1016/j.ceramint.2018.03.170
32. Kumar G, Thamizhavel A, Yokogawa Y, Kalkura S, Girija E. Synthesis, characterization and in vitro studies of zinc and carbonate co-substituted nano-hydroxyapatite for biomedical applications. *MATERIALS CHEMISTRY AND PHYSICS*. 2012;134(2–3):1127–1135. https://doi.org/10.1016/j.matchemphys.2012.04.005
33. Lakrat M, Jabri M, Alves M, Fernandes M, Ansari L, Santos C, Mejdoubi E. Three-dimensional nano-hydroxyapatite sodium silicate glass composite scaffold for bone tissue engineering-A new fabrication process at a near-room temperature. *MATERIALS CHEMISTRY AND PHYSICS*. 2021;260. https://doi.org/10.1016/j.matchemphys.2020.124185
34. Latocha J, Wojasinski M, Jurczak K, Gierlotka S, Sobieszuk P, Ciach T. Precipitation of hydroxyapatite nanoparticles in 3D-printed reactors. *CHEMICAL ENGINEERING AND PROCESSING-PROCESS INTENSIFICATION*. 2018;133:221–233. https://doi.org/10.1016/j.cep.2018.10.001
35. Li Z, Wu S, Ye C. Temperature-related changes of bioapatite based on hypermineralized dolphin's bulla. *JOURNAL OF RAMAN SPECTROSCOPY*. 2015;46(10):964–968. https://doi.org/10.1002/jrs.4653
36. Lim P, Tong S, Ho B, Wang W, Thian E. A functional apatite with antibacterial efficacy for bone tissue infections. *JOURNAL OF PHYSICS-MATERIALS*. 2019;2(3). https://doi.org/10.1088/2515-7639/ab1207
37. Machado T, Leite I, Inada N, Li M, da Silva J, Andres J, Beltran-Mir H, Cordoncillo E, Longo E. Designing biocompatible and multicolor fluorescent hydroxyapatite nanoparticles for cell-imaging applications. *MATERIALS TODAY CHEMISTRY*. 2019;14. https://doi.org/10.1016/j.mtchem.2019.100211
38. Machado T, Sczancoski J, Beltran-Mir H, Nogueira I, Li M, Andres J, Cordoncillo E, Longo E. A novel approach to obtain highly intense self-activated photoluminescence emissions in hydroxyapatite nanoparticles. *JOURNAL OF SOLID STATE CHEMISTRY*. 2017;249:64–69. https://doi.org/10.1016/j.jssc.2016.12.018
39. Mansour S, El-dek S, Ahmed M, Abd-Elwahab S, Ahmed M. Effect of preparation conditions on the nanostructure of hydroxyapatite and brushite phases. *APPLIED NANOSCIENCE*. 2016;6(7):991–1000. https://doi.org/10.1007/s13204-015-0509-4
40. McElderry J, Zhu P, Mroue K, Xu J, Pavan B, Fang M, Zhao G, McNerny E, Kohn D, Franceschi R, Holl M, Tecklenburg M, Ramamoorthy A, Morris M. Crystallinity and compositional changes in carbonated apatites: Evidence from P-31 solid-state NMR, Raman, and AFM analysis. *JOURNAL OF SOLID STATE CHEMISTRY*. 2013;206:192–198. https://doi.org/10.1016/j.jssc.2013.08.011
41. Mitić Z. Selected instrumental methods for physicochemical and spectroscopic characterization of different biomaterials. *Biomaterials in Clinical Practice: Advances in Clinical Research and Medical Devices*. 2017 https://doi.org/10.1007/978-3-319-68025-5_21
42. Nicoara A, Stoica A, Ene D, Vasile B, Holban A, Neacsu I. In Situ and Ex Situ Designed Hydroxyapatite: Bacterial Cellulose Materials with Biomedical Applications. *MATERIALS*. 2020;13(21). https://doi.org/10.3390/ma13214793
43. Prasad S, Jayakrishnan A, Kumar T. Hydroxyapatite-poly(vinyl alcohol) core-shell nanoparticles for dual delivery of methotrexate and gemcitabine for bone cancer treatment. *JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY*. 2019;51:629–638. https://doi.org/10.1016/j.jddst.2019.03.041
44. Rajendran M, Iraivan G, Ghayathri B, Mohan P, Chandran K, Nagaiah H, Selvaraj R. Antibiotic Loaded Nano Rod Bone Cement for the Treatment of Osteomyelitis. *RECENT PATENTS ON NANOTECHNOLOGY*. 2021;15(1):70–89. https://doi.org/10.2174/1872210514666200811103724
45. Rempel S, Eselevich D, Schroettner H, Valeeva A, Rempel A. Thermal behaviour of TiOy/HAp nanocomposites. *CERAMICS INTERNATIONAL*. 2021;47(7):9613–9619. https://doi.org/10.1016/j.ceramint.2020.12.098
46. Rincon-Lopez J, Hermann-Munoz J, Giraldo-Betancur A, De Vizcaya-Ruiz A, Alvarado-Orozco J, Munoz-Saldana J. Synthesis, Characterization and In Vitro Study of Synthetic and Bovine-Derived Hydroxyapatite Ceramics: A Comparison. *MATERIALS*. 2018;11(3). https://doi.org/10.3390/ma11030333

47. Severin A, Berezin I, Orlova M, Trofimova T, Lupatov A, Egorov A, Pleshakov V. Sorption of bismuth(iii) and its chloride complexes with 2-aminopyrimidine cation on hydroxyapatite of various textures. *RUSSIAN CHEMICAL BULLETIN*. 2020;69(4):665–670. https://doi.org/10.1007/s11172-020-2815-6
48. Siddiqi SA, Azhar U. Carbonate substituted hydroxyapatite. *Handbook of Ionic Substituted Hydroxyapatites*. 2019 https://doi.org/10.1016/B978-0-08-102834-6.00006-9
49. Syazwan M, Ahmad-Fauzi M, Balestri W, Reinwald Y, Marliana B. Effectiveness of various sintering aids on the densification and in vitro properties of carbonated hydroxyapatite porous scaffolds produced by foam replication technique. *MATERIALS TODAY COMMUNICATIONS*. 2021;27. https://doi.org/10.1016/j.mtcomm.2021.102395
50. Tanaka T, Yoshioka T, Ikoma T, Tanaka J. Preparation of porous b-type carbonate apatite with different carbonate contents for an artificial bone substitute. *Journal of Fluid Mechanics*. 2014;1621. https://doi.org/10.1557/opl.2014.120
51. Tanaka T, Yoshioka T, Ikoma T, Tanaka J. Preparation of porous b-type carbonate apatite with different carbonate contents for an artificial bone substitute. *Materials Research Society Symposium Proceedings*. Vol. 1621. 2014 https://doi.org/10.1557/opl.2014.120
52. Uskokovic V, Desai T. Phase composition control of calcium phosphate nanoparticles for tunable drug delivery kinetics and treatment of osteomyelitis. I. Preparation and drug release. *JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A*. 2013;101(5):1416–1426. https://doi.org/10.1002/jbm.a.34426
53. Uskokovic V, Desai T. Simultaneous bactericidal and osteogenic effect of nanoparticulate calcium phosphate powders loaded with clindamycin on osteoblasts infected with Staphylococcus aureus. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2014;37:210–222. https://doi.org/10.1016/j.msec.2014.01.008
54. Uskokovic V. The role of hydroxyl channel in defining selected physicochemical peculiarities exhibited by hydroxyapatite. *RSC ADVANCES*. 2015;5(46):36614–36633. https://doi.org/10.1039/c4ra17180b
55. Vasic M, Antic B, Boskovic M, Antic A, Blanusa J. Hydroxyapatite/iron oxide nanocomposite prepared by high energy ball milling. *PROCESSING AND APPLICATION OF CERAMICS*. 2019;13(2):210–217. https://doi.org/10.2298/PAC1902210V
56. Veiga A, Castro F, Oliveira A, Rocha F. High efficient strategy for the production of hydroxyapatite/silk sericin nanocomposites. *JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY*. 2021;96(1):241–248. https://doi.org/10.1002/jctb.6532
57. Veiga A, Castro F, Reis C, Sousa A, Oliveira A, Rocha F. Hydroxyapatite/sericin composites: A simple synthesis route under near-physiological conditions of temperature and pH and preliminary study of the effect of sericin on the biomineralization process. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2020;108. https://doi.org/10.1016/j.msec.2019.110400
58. Visan A, Grossin D, Stefan N, Duta L, Miroiu F, Stan G, Sopronyi M, Luculescu C, Freche M, Marsan O, Charvilat C, Ciuca S, Mihailescu I. Biomimetic nanocrystalline apatite coatings synthesized by Matrix Assisted Pulsed Laser Evaporation for medical applications. *MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS*. 2014;181:56–63. https://doi.org/10.1016/j.mseb.2013.11.007
59. Vokhidova N, Ergashev K, Rashidova S. Hydroxyapatite-ChitosanBombyx mori: Synthesis and Physicochemical Properties. *JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS*. 2020;30(9):3357–3368. https://doi.org/10.1007/s10904-020-01649-9
60. Wingender B, Azuma M, Krywka C, Zaslansky P, Boyle J, Deymier A. Carbonate substitution significantly affects the structure and mechanics of carbonated apatites. *ACTA BIOMATERIALIA*. 2021;122:377–386. https://doi.org/10.1016/j.actbio.2021.01.002
61. Wu V, Ahmed M, Mostafa M, Uskokovic V. Empirical and theoretical insights into the structural effects of selenite doping in hydroxyapatite and the ensuing inhibition of osteoclasts. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2020;117. https://doi.org/10.1016/j.msec.2020.111257
62. Yan L, Da H, Zhang S, Lopez V, Wang W. Bacterial magnetosome and its potential application. *MICROBIOLOGICAL RESEARCH*. 2017;203:19–28. https://doi.org/10.1016/j.micres.2017.06.005
63. Zou Z, Lin K, Chen L, Chang J. Ultrafast synthesis and characterization of carbonated hydroxyapatite nanopowders via sonochemistry-assisted microwave process. *ULTRASONICS SONOCHEMISTRY*. 2012;19(6):1174–1179. https://doi.org/10.1016/j.ultsonch.2012.04.002

Коцитати

64. Ignjatovic N, Djuric S, Mitic Z, Jankovic D, Uskokovic D. Investigating an organ-targeting platform based on hydroxyapatite nanoparticles using a novel in situ method of radioactive (125)Iodine labeling. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2014;43:439–446. https://doi.org/10.1016/j.msec.2014.07.046
65. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC1612070011I
66. Mitic Z, Stolic A, Stojanovic S, Najman S, Ignjatovic N, Nikolic G, Trajanovic M. Instrumental methods and techniques for structural and physicochemical characterization of biomaterials and bone tissue: A review. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2017;79:930–949. https://doi.org/10.1016/j.msec.2017.05.127

Аутоцитати

67. Uskokovic V, Hoover C, Vukomanovic M, Uskokovic D, Desai T. Osteogenic and antimicrobial nanoparticulate calcium phosphate and poly-(D,L-lactide-co-glycolide) powders for the treatment of osteomyelitis. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2013;33(6):3362–3373. https://doi.org/10.1016/j.msec.2013.04.023
68. Janicijevic Z, Lukic M, Veselinovic L. Alternating current electric field modified synthesis of hydroxyapatite bioceramics. *MATERIALS & DESIGN*. 2016;109:511–519. https://doi.org/10.1016/j.matdes.2016.07.061
69. Stojanovic Z, Ignjatovic N, Wu V, Zunic V, Veselinovic L, Skapin S, Miljkovic M, Uskokovic V, Uskokovic D. Hydrothermally processed 1D hydroxyapatite: Mechanism of formation and biocompatibility studies. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2016;68:746–757. https://doi.org/10.1016/j.msec.2016.06.047

2. Stojanovic Z, Veselinovic L, Markovic S, Ignjatovic N, Uskokovic D. Hydrothermal Synthesis of Nanosized Pure and Cobalt-Exchanged Hydroxyapatite. *Materials and Manufacturing Processes*. 2009;24(10–11):1096–1103. https://doi.org/10.1080/10426910903032113

Хетероцитати

1. Aggarwal A, Singh R, Saggu H. Novel Mesoporous Cationic Substituted Hydroxyapatite Particles for Multipurpose Applications. *JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS*. 2021. https://doi.org/10.1007/s10904-021-02175-y

2. Aggarwal A, Singh RP, Danewalia SS, Saggu HS. Novel mesoporous anionic substituted hydroxyapatite particles for multipurpose applications. *Ceramics International*. 2021. https://doi.org/10.1016/j.ceramint.2021.11.174

3. Ali A, Alrowaili Z, El-Giar E, Ahmed M, El-Kady A. Novel green synthesis of hydroxyapatite uniform nanorods via microwave-hydrothermal route using licorice root extract as template. *CERAMICS INTERNATIONAL*. 2021;47(3):3928–3937. https://doi.org/10.1016/j.ceramint.2020.09.256

4. Balu S, Andra S, Jeevanandam J, Vidyavathy S, Sampath V. Emerging marine derived nanohydroxyapatite and their composites for implant and biomedical applications. *JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS*. 2021;119. https://doi.org/10.1016/j.jmbbm.2021.104523

5. Basu S, Ghosh A, Barui A, Basu B. (Fe/Sr) Codoped Biphasic Calcium Phosphate with Tailored Osteoblast Cell Functionality. *ACS BIOMATERIALS SCIENCE & ENGINEERING*. 2018;4(3):857–871. https://doi.org/10.1021/acsbiomaterials.7b00813

6. Bhattacharjee A, Gupta A, Verma M, Anand M, Sengupta P, Saravanan M, Manna I, Balani K. Antibacterial and magnetic response of site-specific cobalt incorporated hydroxyapatite. *CERAMICS INTERNATIONAL*. 2020;46(1):513–522. https://doi.org/10.1016/j.ceramint.2019.08.291

7. Bhattacharjee A, Hassan R, Gupta A, Verma M, Murugan P, Sengupta P, Saravanan M, Manna I, Balani K. Effect of Zn and Co doping on antibacterial efficacy and cytocompatibility of spark plasma sintered

hydroxyapatite. *JOURNAL OF THE AMERICAN CERAMIC SOCIETY*. 2020;103(8):4090–4100. https://doi.org/10.1111/jace.17077

8. Chandra V, Baskar G, Suganthi R, Elayaraja K, Joshy M, Beaula W, Mythili R, Venkatraman G, Kalkura S. Blood Compatibility of Iron-Doped Nanosize Hydroxyapatite and Its Drug Release. *ACS APPLIED MATERIALS & INTERFACES*. 2012;4(3):1200–1210. https://doi.org/10.1021/am300140q
9. Chandra V, Elayaraja K, Arul K, Ferraris S, Spriano S, Ferraris M, Asokan K, Kalkura S. Synthesis of magnetic hydroxyapatite by hydrothermal-microwave technique: Dielectric, protein adsorption, blood compatibility and drug release studies. *CERAMICS INTERNATIONAL*. 2015;41(10):13153–13163. https://doi.org/10.1016/j.ceramint.2015.07.088
10. Chen Z, Liu Y, Mao L, Gong L, Sun W, Feng L. Effect of cation doping on the structure of hydroxyapatite and the mechanism of defluoridation. *CERAMICS INTERNATIONAL*. 2018;44(6):6002–6009. https://doi.org/10.1016/j.ceramint.2017.12.191
11. Dobosz J, Hull S, Zawadzki M. CALCIUM HYDROXYAPATITE SUPPORTED COBALT CATALYSTS FOR ETHANOL STEAM REFORMING: EFFECT OF THE INCORPORATION METHOD OF ACTIVE PHASE. *STUDIA UNIVERSITATIS BABES-BOLYAI CHEMIA*. 2018;63(1):215–237. https://doi.org/10.24193/SUBBCHEM.2018.1.16
12. Dobosz J, Malecka M, Zawadzki M. Hydrogen generation via ethanol steam reforming over Co/HAp catalysts. *JOURNAL OF THE ENERGY INSTITUTE*. 2018;91(3):411–423. https://doi.org/10.1016/j.joei.2017.02.001
13. Dorozhkin SV. Biological and Medical Significance of Nanodimensional and Nanocrystalline Calcium Orthophosphates. *Biomedical Materials and Diagnostic Devices*. 2012 https://doi.org/10.1002/9781118523025.ch2
14. Dorozhkin SV. Nano-dimensional calcium orthophosphates: Recent developments and future applications. *Calcium Phosphate: Structure, Synthesis, Properties, and Applications*. 2012
15. Dorozhkin SV. Nanodimensional and nanocrystalline hydroxyapatite and other calcium orthophosphates. *Hydroxyapatite: Synthesis, Properties and Applications*. 2013
16. Drevet R, Zhukova Y, Dubinskiy S, Kazakbiev A, Naumenko V, Abakumov M, Faure J, Benhayoune H, Prokoshkin S. Electrodeposition of cobalt-substituted calcium phosphate coatings on Ti22Nb6Zr alloy for bone implant applications. *JOURNAL OF ALLOYS AND COMPOUNDS*. 2019;793:576–582. https://doi.org/10.1016/j.jallcom.2019.04.180
17. Goloshchapov D, Buylov N, Emelyanova A, Ippolitov I, Ippolitov Y, Kashkarov V, Khudyakov Y, Nikitkov K, Seredin P. Raman and XANES Spectroscopic Study of the Influence of Coordination Atomic and Molecular Environments in Biomimetic Composite Materials Integrated with Dental Tissue. *NANOMATERIALS*. 2021;11(11). https://doi.org/10.3390/nano11113099
18. Gomes S, Kaur A, Greneche J, Nedelec J, Renaudin G. Atomic scale modeling of iron-doped biphasic calcium phosphate bioceramics. *ACTA BIOMATERIALIA*. 2017;50:78–88. https://doi.org/10.1016/j.actbio.2016.12.011
19. Hribar G, Žnidaršič A, Maver U. Calcium phosphate as a biomaterial and its use in biomedical applications. *Phosphates: Sources, Properties and Applications*. 2012, 43-81.
20. Ijaz K, Khalid H, Chaudhry AA. Zinc-substituted hydroxyapatite. *Handbook of Ionic Substituted Hydroxyapatites*. 2019 https://doi.org/10.1016/B978-0-08-102834-6.00009-4
21. Jirimali H, Chaudhari B, Khanderay J, Joshi S, Singh V, Patil A, Gite V. Waste Eggshell-Derived Calcium Oxide and Nanohydroxyapatite Biomaterials for the Preparation of LLDPE Polymer Nanocomposite and Their Thermomechanical Study. *POLYMER-PLASTICS TECHNOLOGY AND ENGINEERING*. 2018;57(8):804–811. https://doi.org/10.1080/03602559.2017.1354221
22. Kailasanathan C, Gangadharan T. Influence of bio inert Silica on Mechanical Properties and their dependence on Porosity of Nanocrystalline based Hydroxyapatite/Gelatin Composites synthesized by co-precipitation Method. *JOURNAL OF THE AUSTRALIAN CERAMIC SOCIETY*. 2016;52(2):52–61.

23. Kailasanathan C, Selvakumar N, Naidu V. Structure and properties of titania reinforced nano-hydroxyapatite/gelatin bio-composites for bone graft materials. *CERAMICS INTERNATIONAL*. 2012;38(1):571–579. https://doi.org/10.1016/j.ceramint.2011.07.045

24. Kailasanathan C, Selvakumar N. Comparative study of hydroxyapatite/gelatin composites reinforced with bio-inert ceramic particles. *CERAMICS INTERNATIONAL*. 2012;38(5):3569–3582. https://doi.org/10.1016/j.ceramint.2011.12.073

25. Kanchana P, Lavanya N, Sekar C. Development of amperometric L-tyrosine sensor based on Fe-doped hydroxyapatite nanoparticles. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2014;35:85–91. https://doi.org/10.1016/j.msec.2013.10.013

26. Kaygili O, Dorozhkin S, Keser S, Yakuphanoglu F. Investigation of the Crystal Structure, Dielectric, Electrical and Microstructural Properties of Cobalt-containing Calcium Orthophosphates. *MATERIALS SCIENCE-MEDZIAGOTYRA*. 2015;21(2):282–287. https://doi.org/10.5755/j01.mm.21.2.6251

27. Kramer E, Itzkowitz E, Wei M. Synthesis and characterization of cobalt-substituted hydroxyapatite powders. *CERAMICS INTERNATIONAL*. 2014;40(8):13471–13480. https://doi.org/10.1016/j.ceramint.2014.05.072

28. Kulanthaivel S, Agarwal T, Rathnam V, Pal K, Banerjee I. Cobalt doped nano-hydroxyapatite incorporated gum tragacanth-alginate beads as angiogenic-osteogenic cell encapsulation system for mesenchymal stem cell based bone tissue engineering. *INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES*. 2021;179:101–115. https://doi.org/10.1016/j.ijbiomac.2021.02.136

29. Kulanthaivel S, Mishra U, Agarwal T, Giri S, Pal K, Pramanik K, Banerjee I. Improving the osteogenic and angiogenic properties of synthetic hydroxyapatite by dual doping of bivalent cobalt and magnesium ion. *CERAMICS INTERNATIONAL*. 2015;41(9):11323–11333. https://doi.org/10.1016/j.ceramint.2015.05.090

30. Kulanthaivel S, Roy B, Agarwal T, Giri S, Pramanik K, Pal K, Ray S, Maiti T, Banerjee I. Cobalt doped proangiogenic hydroxyapatite for bone tissue engineering application. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2016;58:648–658. https://doi.org/10.1016/j.msec.2015.08.052

31. Kurinjinathan P, Arul K, Ramya J, Manikandan E, Hegazy H, Umar A, Algarni H, Ahmad N. Effect of Nickel Doping on the Properties of Hydroxyapatite Nanoparticles. *JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY*. 2020;20(4):2482–2487. https://doi.org/10.1166/jnn.2020.17182

32. Lara-Ochoa S, Ortega-Lara W, Guerrero-Beltran C. Hydroxyapatite Nanoparticles in Drug Delivery: Physicochemistry and Applications. *PHARMACEUTICS*. 2021;13(10). https://doi.org/10.3390/pharmaceutics13101642

33. Lee D, Upadhye K, Kumta P. Nano-sized calcium phosphate (CaP) carriers for non-viral gene delivery. *MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS*. 2012;177(3):289–302. https://doi.org/10.1016/j.mseb.2011.11.001

34. Lee D, Ahn G, Kumta PN. Nano-Sized Calcium Phosphate (CaP) Carriers for Non-Viral Gene/Drug Delivery. *Nanomaterials in Drug Delivery, Imaging, and Tissue Engineering*. 2013 https://doi.org/10.1002/9781118644591.ch6

35. Lin W, Chuang C, Chang C, Chiu Y, Yan M, Tang C. The Effect of Electrode Topography on the Magnetic Properties and MRI Application of Electrochemically-Deposited, Synthesized, Cobalt-Substituted Hydroxyapatite. *NANOMATERIALS*. 2019;9(2). https://doi.org/10.3390/nano9020200

36. Lin W, Chuang C, Wang P, Tang C. A Comparative Study on the Direct and Pulsed Current Electrodeposition of Cobalt-Substituted Hydroxyapatite for Magnetic Resonance Imaging Application. *MATERIALS*. 2019;12(1). https://doi.org/10.3390/ma12010116

37. Lin W, Tang C. Evaluation of Polyvinyl Alcohol/Cobalt Substituted Hydroxyapatite Nanocomposite as a Potential Wound Dressing for Diabetic Foot Ulcers. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2020;21(22). https://doi.org/10.3390/ijms21228831

38. Marins N, Lee B, Silva R, Raghavan A, Carreno N, Grandfield K. Niobium pentoxide and hydroxyapatite particle loaded electrospun polycaprolactone/gelatin membranes for bone tissue engineering. *COLLOIDS AND SURFACES B-BIOINTERFACES*. 2019;182. https://doi.org/10.1016/j.colsurfb.2019.110386

39. Mushtaq A, Zhao R, Luo D, Dempsey E, Wang X, Iqbal M, Kong X. Magnetic hydroxyapatite nanocomposites: The advances from synthesis to biomedical applications. *MATERIALS & DESIGN*. 2021;197. https://doi.org/10.1016/j.matdes.2020.109269

40. Omari E, Makhloufi S, Omari M. Preparation by Sol-Gel Method and Characterization of Co-doped LaNiO3 Perovskite. *JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS*. 2017;27(5):1466–1472. https://doi.org/10.1007/s10904-017-0604-y

41. Ouyang M, Hu B, Bai R, Lv X, Zhang C, Ma C, Chen H. Fabrication of various ZnO nanostructures and their photoelectric properties. *Advanced Materials Research*. 2011;148–149:1364–1368. https://doi.org/10.4028/www.scientific.net/AMR.148-149.1364

42. Padmanabhan V, Narayanan T, Sagadevan S, Hoque M, Kulandaivelu R. Advanced lithium substituted hydroxyapatite nanoparticles for antimicrobial and hemolytic studies. *NEW JOURNAL OF CHEMISTRY*. 2019;43(47):18484–18494. https://doi.org/10.1039/c9nj03735g

43. Panneerselvam K, Arul K, Warrier A, Asokan K, Dong C. Rapid Adsorption of Industrial Pollutants Using Metal Ion Doped Hydroxyapatite. In: Lakshmanan S, ed. Vol. 2117. 2019 https://doi.org/10.1063/1.5114584

44. Panneerselvam R, Anandhan N, Gopu G, Roselin A, Ganesan K, Marimuthu T. Impact of different transition metal ions in the structural, mechanical, optical, chemico-physical and biological properties of nanohydroxyapatite. *APPLIED SURFACE SCIENCE*. 2020;506. https://doi.org/10.1016/j.apsusc.2019.144802

45. Pasandideh Z, Tajabadi M, Javadpour J, Mirkazemi S. The effects of Fe3+ and Co2+ substitution in Ca10-x-yFexCoy(PO4)(6)(OH)(2) hydroxyapatite nanoparticles: Magnetic, antibacterial, and improved drug release behavior. *CERAMICS INTERNATIONAL*. 2020;46(10):16104–16118. https://doi.org/10.1016/j.ceramint.2020.03.163

46. Prasad S, Vyas V, Harijan P, Ershad M, Pyare R. Investigating in vitro bioactivity, magnetic and mechanical properties of iron and cobalt oxide reinforced (45S5-HA) biocomposite. *JOURNAL OF THE AUSTRALIAN CERAMIC SOCIETY*. 2018;54(3):411–421. https://doi.org/10.1007/s41779-017-0167-y

47. Rajendran A, Balakrishnan S, Kulandaivelu R, Nellaiappan S. Multi-element substituted hydroxyapatites: synthesis, structural characteristics and evaluation of their bioactivity, cell viability, and antibacterial activity. *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 2018;86(2):441–458. https://doi.org/10.1007/s10971-018-4634-x

48. Renaudin G, Gomes S, Nedelec J. First-Row Transition Metal Doping in Calcium Phosphate Bioceramics: A Detailed Crystallographic Study. *MATERIALS*. 2017;10(1). https://doi.org/10.3390/ma10010092

49. Sadetskaya A, Bobrysheva N, Osmolowsky M, Osmolovskaya O, Voznesenskiy M. Correlative experimental and theoretical characterization of transition metal doped hydroxyapatite nanoparticles fabricated by hydrothermal method. *MATERIALS CHARACTERIZATION*. 2021;173. https://doi.org/10.1016/j.matchar.2021.110911

50. Sarath Chandra V, Elayaraja K, Suganthi RV, Ahymah Joshy MI, Sulania I, Kulriya PK, Asokan K, Kanjilal D, Narayana Kalkura S. Effect of irradiation of Si5+ ion on fe doped hydroxyapatite. *Advanced Materials Letters*. 2013;4(6):438–443. https://doi.org/10.5185/amlett.2012.ib.110

51. Singh R, Singh D, Singh J. Biomagnetic mesoporous nanorods for hyperthermia, drug delivery, and tissue regeneration applications. *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 2021;97(1):155–166. https://doi.org/10.1007/s10971-020-05421-w

52. Sofronov D, Sofronova E, Starikov V, Baymer V, Kudin K, Matejchenko P, Mamalis A, Lavrynenko S. Microwave Synthesis of Tetragonal Phase CdWO4. *MATERIALS AND MANUFACTURING PROCESSES*. 2012;27(5):490–493. https://doi.org/10.1080/10426914.2011.593229

53. Sopyan I, Rahim T. Porous Magnesium-Doped Biphasic Calcium Phosphate Ceramics Prepared via Polymeric Sponge Method. *MATERIALS AND MANUFACTURING PROCESSES*. 2012;27(6):702–706. https://doi.org/10.1080/10426914.2011.602787

54. Srinivasan B, Kolanthai E, Kumaraswamy N, Jayapalan R, Vavilapalli D, Catalani L, Ningombam G, Khundrakpam N, Singh N, Kalkura S. Thermally Modified Iron-Inserted Calcium Phosphate for Magnetic Hyperthermia in an Acceptable Alternating Magnetic Field. *JOURNAL OF PHYSICAL CHEMISTRY B*. 2019;123(26):5506–5513. https://doi.org/10.1021/acs.jpcb.9b03015

55. Tank K, Chudasama K, Thaker V, Joshi M. Cobalt-doped nanohydroxyapatite: synthesis, characterization, antimicrobial and hemolytic studies. *JOURNAL OF NANOPARTICLE RESEARCH*. 2013;15(5). https://doi.org/10.1007/s11051-013-1644-z

56. Wang L, Wang X, Ding X, Jiang H. Preparation of HA-Bioglass-Al2O3 Biological Composite. *MATERIALS AND MANUFACTURING PROCESSES*. 2013;28(9):980–983. https://doi.org/10.1080/10426914.2012.709339

57. Wang L, Wang X, Yu C, Zhao Y. Effect of Titanium Addition on Thermal Stability of Hydroxyapatite/zirconia Nanocomposite. *SCIENCE OF SINTERING*. 2015;47(1):107–112. https://doi.org/10.2298/SOS1501115W

58. Wu H, Li Z, Tang J, Yang X, Zhou Y, Guo B, Wang L, Zhu X, Tu C, Zhang X. The in vitro and in vivo anti-melanoma effects of hydroxyapatite nanoparticles: influences of material factors. *INTERNATIONAL JOURNAL OF NANOMEDICINE*. 2019;14:1177–1191. https://doi.org/10.2147/IJN.S184792

59. Xiao Y, Karttunen M, Jalkanen J, Mussi M, Liao Y, Grohe B, Lagugne-Labarthet F, Siqueira W. Hydroxyapatite Growth Inhibition Effect of Pellicle Statherin Peptides. *JOURNAL OF DENTAL RESEARCH*. 2015;94(8):1106–1112. https://doi.org/10.1177/0022034515586769

60. Yazdani N, Javadpour J, Yekta B, Hamrang M. Hydrothermal Synthesis of Cobalt- Doped Hydroxyapatite Nanopartieles: Structure, Magnetic Behaviour, Bioaetivity and Antibacterial Activity. *IRANIAN JOURNAL OF MATERIALS SCIENCE AND ENGINEERING*. 2019;16(1):39–48. https://doi.org/10.22068/ijmse.16.1.39

Коцитати

61. Ajdukovic Z, Mihajilov-Krstev T, Ignjatovic N, Stojanovic Z, Mladenovic-Antic S, Kocic B, Najman S, Petrovic N, Uskokovic D. In Vitro Evaluation of Nanoscale Hydroxyapatite-Based Bone Reconstructive Materials with Antimicrobial Properties. *JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY*. 2016;16(2):1420–1428. https://doi.org/10.1166/jnn.2016.10699

62. Ignjatovic N, Ajdukovic Z, Rajkovic J, Najman S, Mihailovic D, Uskokovic D. Enhanced Osteogenesis of Nanosized Cobalt-substituted Hydroxyapatite. *JOURNAL OF BIONIC ENGINEERING*. 2015;12(4):604–612. https://doi.org/10.1016/S1672-6529(14)60150-5

63. Ignjatovic N, Ajdukovic Z, Savic V, Najman S, Mihailovic D, Vasiljevic P, Stojanovic Z, Uskokovic V, Uskokovic D. Nanoparticles of cobalt-substituted hydroxyapatite in regeneration of mandibular osteoporotic bones. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE*. 2013;24(2):343–354. https://doi.org/10.1007/s10856-012-4793-1

64. Ignjatovic N, Mancic L, Vukovic M, Stojanovic Z, Nikolic M, Skapin S, Jovanovic S, Veselinovic L, Uskokovic V, Lazic S, Markovic S, Lazarevic M, Uskokovic D. Rare-earth (Gd^{3+},Yb^{3+}/Tm^{3+},Eu^{3+}) co-doped hydroxyapatite as magnetic, up-conversion and down-conversion materials for multimodal imaging. *SCIENTIFIC REPORTS*. 2019;9. https://doi.org/10.1038/s41598-019-52885-0

65. Lukic M, Stojanovic Z, Skapin S, Macek-Krzmanc M, Mitric M, Markovic S, Uskokovic D. Dense fine-grained biphasic calcium phosphate (BCP) bioceramics designed by two-step sintering. *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*. 2011;31(1–2):19–27. https://doi.org/10.1016/j.jeurceramsoc.2010.09.006

66. Mitic Z, Stolic A, Stojanovic S, Najman S, Ignjatovic N, Nikolic G, Trajanovic M. Instrumental methods and techniques for structural and physicochemical characterization of biomaterials and bone tissue: A

review. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2017;79:930–949. https://doi.org/10.1016/j.msec.2017.05.127

67. Uskokovic V, Uskokovic D. Nanosized hydroxyapatite and other calcium phosphates: Chemistry of formation and application as drug and gene delivery agents. *JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B-APPLIED BIOMATERIALS*. 2011;96B(1):152–191. https://doi.org/10.1002/jbm.b.31746

Аутоцитати

68. Veselinovic L, Karanovic L, Stojanovic Z, Bracko I, Markovic S, Ignjatovic N, Uskokovic D. Crystal structure of cobalt-substituted calcium hydroxyapatite nanopowders prepared by hydrothermal processing. *JOURNAL OF APPLIED CRYSTALLOGRAPHY*. 2010;43:320–327. https://doi.org/10.1107/S0021889809051395

3. Veselinovic L, Karanovic L, Stojanovic Z, Bracko I, Markovic S, Ignjatovic N, Uskokovic D. Crystal structure of cobalt-substituted calcium hydroxyapatite nanopowders prepared by hydrothermal processing. *Journal of Applied Crystallography*. 2010;43:320–327. https://doi.org/10.1107/S0021889809051395

Хетероцитати

1. Ali I, Khalil M, Madbouly H, Soliman A. Efficient lanthanides adsorption using magnetic hydroxyapatite incorporated cobalt. *INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY*. n.d. https://doi.org/10.1080/03067319.2021.1912332

2. Ayinde W, Gitari W, Munkombwe M, Amidou S. Green synthesis of Ag/MgO nanoparticle modified nanohydroxyapatite and its potential for defluoridation and pathogen removal in groundwater. *PHYSICS AND CHEMISTRY OF THE EARTH*. 2018;107:25–37. https://doi.org/10.1016/j.pce.2018.08.007

3. Bazin T, Magnaudeix A, Mayet R, Carles P, Julien I, Demourgues A, Gaudon M, Champion E. Sintering and biocompatibility of copper-doped hydroxyapatite bioceramics. *CERAMICS INTERNATIONAL*. 2021;47(10):13644–13654. https://doi.org/10.1016/j.ceramint.2021.01.225

4. Bhattacharjee A, Hassan R, Gupta A, Verma M, Murugan P, Sengupta P, Saravanan M, Manna I, Balani K. Effect of Zn and Co doping on antibacterial efficacy and cytocompatibility of spark plasma sintered hydroxyapatite. *JOURNAL OF THE AMERICAN CERAMIC SOCIETY*. 2020;103(8):4090–4100. https://doi.org/10.1111/jace.17077

5. Bakheet MA, Saeed MA, Isa ARBM, Sahnoun R. First principles study of the physical properties of pure and doped calcium phosphate biomaterial for tissue engineering. *Nanobiomaterials in Hard Tissue Engineering: Applications of Nanobiomaterials*. 2016 https://doi.org/10.1016/B978-0-323-42862-0.00007-9

6. Birkbak M, Nielsen I, Frolich S, Stock S, Kenesei P, Almer J, Birkedal H. Concurrent determination of nanocrystal shape and amorphous phases in complex materials by diffraction scattering computed tomography. *JOURNAL OF APPLIED CRYSTALLOGRAPHY*. 2017;50:192–197. https://doi.org/10.1107/S1600576716019543

7. Chakraborty R, Mukhopadhyay P, Kumar B. Optimal biodiesel-additive synthesis under infrared excitation using pork bone supported-Sb catalyst: Engine performance and emission analyses. *ENERGY CONVERSION AND MANAGEMENT*. 2016;126:32–41. https://doi.org/10.1016/j.enconman.2016.07.069

8. Chandran L, Ballamurugan AM. Study on the effect of Yb3+ substitution in apatite matrices: Physico-chemical and biocompatibility evaluation. *Trends in Biomaterials and Artificial Organs*. 2020;34(1):13–19.

9. Chandra V, Elayaraja K, Arul K, Ferraris S, Spriano S, Ferraris M, Asokan K, Kalkura S. Synthesis of magnetic hydroxyapatite by hydrothermal-microwave technique: Dielectric, protein adsorption, blood compatibility and drug release studies. *CERAMICS INTERNATIONAL*. 2015;41(10):13153–13163. https://doi.org/10.1016/j.ceramint.2015.07.088

10. Chen M, Hanagata N, Ikoma T, Huang J, Li K, Lin C, Lin F. Hafnium-doped hydroxyapatite nanoparticles with ionizing radiation for lung cancer treatment. *ACTA BIOMATERIALIA*. 2016;37:165–173. https://doi.org/10.1016/j.actbio.2016.04.004

11. DileepKumar V, Sridhar M, Aramwit P, Krut'ko V, Musskaya O, Glazov I, Reddy N. A review on the synthesis and properties of hydroxyapatite for biomedical applications. *JOURNAL OF BIOMATERIALS SCIENCE-POLYMER EDITION*. n.d. https://doi.org/10.1080/09205063.2021.1980985

12. Dobosz J, Cichy M, Zawadzki M, Borowiecki T. Glycerol steam reforming over calcium hydroxyapatite supported cobalt and cobalt-cerium catalysts. *JOURNAL OF ENERGY CHEMISTRY*. 2018;27(2):404–412. https://doi.org/10.1016/j.jechem.2017.12.004

13. Dobosz J, Malecka M, Zawadzki M. Hydrogen generation via ethanol steam reforming over Co/HAp catalysts. *JOURNAL OF THE ENERGY INSTITUTE*. 2018;91(3):411–423. https://doi.org/10.1016/j.joei.2017.02.001

14. Dorozhkin SV. Biological and Medical Significance of Nanodimensional and Nanocrystalline Calcium Orthophosphates. *Biomedical Materials and Diagnostic Devices*. 2012 https://doi.org/10.1002/9781118523025.ch2

15. Dorozhkin SV. Nano-dimensional calcium orthophosphates: Recent developments and future applications. *Calcium Phosphate: Structure, Synthesis, Properties, and Applications*. 2012

16. Dorozhkin SV. Nanodimensional and nanocrystalline hydroxyapatite and other calcium orthophosphates. *Hydroxyapatite: Synthesis, Properties and Applications*. 2013

17. Drevet R, Zhukova Y, Dubinskiy S, Kazakbiev A, Naumenko V, Abakumov M, Faure J, Benhayoune H, Prokoshkin S. Electrodeposition of cobalt-substituted calcium phosphate coatings on Ti22Nb6Zr alloy for bone implant applications. *JOURNAL OF ALLOYS AND COMPOUNDS*. 2019;793:576–582. https://doi.org/10.1016/j.jallcom.2019.04.180

18. Drouet C. Applied predictive thermodynamics (ThermAP). Part 2. Apatites containing Ni-2+, Co2+, Mn2+, or Fe2+ ions. *JOURNAL OF CHEMICAL THERMODYNAMICS*. 2019;136:182–189. https://doi.org/10.1016/j.jct.2015.06.016

19. Geng Z, Cui Z, Li Z, Zhu S, Liang Y, Lu W, Yang X. Synthesis, characterization and the formation mechanism of magnesium- and strontium-substituted hydroxyapatite. *JOURNAL OF MATERIALS CHEMISTRY B*. 2015;3(18):3738–3746. https://doi.org/10.1039/c4tb02148g

20. Geng Z, Wang R, Li Z, Cui Z, Zhu S, Liang Y, Liu Y, Bao H, Li X, Huo Q, Liu Z, Yang X. Synthesis, characterization and biological evaluation of strontium/magnesium-co-substituted hydroxyapatite. *JOURNAL OF BIOMATERIALS APPLICATIONS*. 2016;31(1):140–151. https://doi.org/10.1177/0885328216633892

21. Gomez-Morales J, Verdugo-Escamilla C, Fernandez-Penas R, Parra-Milla C, Drouet C, Iafisco M, Oltolina F, Prat M, Fernandez-Sanchez J. Bioinspired crystallization, sensitized luminescence and cytocompatibility of citrate-functionalized Ca-substituted europium phosphate monohydrate nanophosphors. *JOURNAL OF COLLOID AND INTERFACE SCIENCE*. 2019;538:174–186. https://doi.org/10.1016/j.jcis.2018.11.083

22. Heimann R. Functional plasma-sprayed hydroxylapatite coatings for medical application: Clinical performance requirements and key property enhancement. *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*. 2021;39(5). https://doi.org/10.1116/6.0001132

23. Heimann R. Structural Changes of Hydroxylapatite during Plasma Spraying: Raman and NMR Spectroscopy Results. *COATINGS*. 2021;11(8). https://doi.org/10.3390/coatings11080987

24. Hribar G, Žnidaršič A, Maver U. Calcium phosphate as a biomaterial and its use in biomedical applications. *Publication Title: Phosphates: Sources, Properties and Applications*. 2012

25. Ibrahim M, Labaki M, Giraudon J, Lamonier J. Hydroxyapatite, a multifunctional material for air, water and soil pollution control: A review. *JOURNAL OF HAZARDOUS MATERIALS*. 2020;383. https://doi.org/10.1016/j.jhazmat.2019.121139

26. Karunakaran G, Cho E, Kumar G, Kolesnikov E, Dmitry A, Ali S. Microwave-assisted synthesis of superparamagnetic mesoporous Co-doped hydroxyapatite nanorods for various biomedical applications. *CERAMICS INTERNATIONAL*. 2021;47(6):8642–8652. https://doi.org/10.1016/j.ceramint.2020.11.234

27. Kaygili O, Dorozhkin S, Keser S, Yakuphanoglu F. Investigation of the Crystal Structure, Dielectric, Electrical and Microstructural Properties of Cobalt-containing Calcium Orthophosphates. *MATERIALS SCIENCE-MEDZIAGOTYRA*. 2015;21(2):282–287. https://doi.org/10.5755/j01.mm.21.2.6251

28. Kramer E, Itzkowitz E, Wei M. Synthesis and characterization of cobalt-substituted hydroxyapatite powders. *CERAMICS INTERNATIONAL*. 2014;40(8):13471–13480. https://doi.org/10.1016/j.ceramint.2014.05.072

29. Lee D, Upadhye K, Kumta P. Nano-sized calcium phosphate (CaP) carriers for non-viral gene delivery. *MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS*. 2012;177(3):289–302. https://doi.org/10.1016/j.mseb.2011.11.001

30. Lee D, Ahn G, Kumta PN. Nano-Sized Calcium Phosphate (CaP) Carriers for Non-Viral Gene/Drug Delivery. *Nanomaterials in Drug Delivery, Imaging, and Tissue Engineering*. 2013 https://doi.org/10.1002/9781118644591.ch6

31. Lin W, Chuang C, Wang P, Tang C. A Comparative Study on the Direct and Pulsed Current Electrodeposition of Cobalt-Substituted Hydroxyapatite for Magnetic Resonance Imaging Application. *MATERIALS*. 2019;12(1). https://doi.org/10.3390/ma12010116

32. Lin W, Tang C. Evaluation of Polyvinyl Alcohol/Cobalt Substituted Hydroxyapatite Nanocomposite as a Potential Wound Dressing for Diabetic Foot Ulcers. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2020;21(22). https://doi.org/10.3390/ijms21228831

33. Mancardi G, Tamargo C, Di Tommaso D, de Leeuw N. Detection of Posner's clusters during calcium phosphate nucleation: a molecular dynamics study. *JOURNAL OF MATERIALS CHEMISTRY B*. 2017;5(35):7274–7284. https://doi.org/10.1039/c7tb01199g

34. Martinez-Casado F, Iafisco M, Delgado-Lopez J, Martinez-Benito C, Ruiz-Perez C, Colangelo D, Oltolina F, Prat M, Gomez-Morales J. Bioinspired Citrate-Apatite Nanocrystals Doped with Divalent Transition Metal Ions. *CRYSTAL GROWTH & DESIGN*. 2016;16(1):145–153. https://doi.org/10.1021/acs.cgd.5b01045

35. More R, Lavande N, More P. Copper supported on Co substituted hydroxyapatite for complete oxidation of diesel engine exhaust and VOC. *MOLECULAR CATALYSIS*. 2019;474. https://doi.org/10.1016/j.mcat.2019.110414

36. Paduraru A, Musuc A, Oprea O, Trusca R, Iordache F, Vasile B, Andronescu E. Synthesis and Characterization of Photoluminescent Ce(III) and Ce(IV) Substituted Hydroxyapatite Nanomaterials by Co-Precipitation Method: Cytotoxicity and Biocompatibility Evaluation. *NANOMATERIALS*. 2021;11(8). https://doi.org/10.3390/nano11081911

37. Paduraru A, Oprea O, Musuc A, Vasile B, Ficai A, Andronescu E. PHOTOLUMINESCENT NANOMATERIALS BASED ON EUROPIUM DOPED HYDROXYAPATITE. *REVISTA ROMANA DE MATERIALE-ROMANIAN JOURNAL OF MATERIALS*. 2021;51(3):353–360.

38. Paduraru A, Oprea O, Musuc A, Vasile B, Iordache F, Andronescu E. Influence of Terbium Ions and Their Concentration on the Photoluminescence Properties of Hydroxyapatite for Biomedical Applications. *NANOMATERIALS*. 2021;11(9). https://doi.org/10.3390/nano11092442

39. Prasad S, Vyas V, Harijan P, Ershad M, Pyare R. Investigating in vitro bioactivity, magnetic and mechanical properties of iron and cobalt oxide reinforced (45S5-HA) biocomposite. *JOURNAL OF THE AUSTRALIAN CERAMIC SOCIETY*. 2018;54(3):411–421. https://doi.org/10.1007/s41779-017-0167-y

40. Ressler A, Antunovic M, Cvetnic M, Ivankovic M, Ivankovic H. Selenite Substituted Calcium Phosphates: Preparation, Characterization, and Cytotoxic Activity. *MATERIALS*. 2021;14(12). https://doi.org/10.3390/ma14123436

41. Ressler A, Cvetnic M, Antunovic M, Marijanovic I, Ivankovic M, Ivankovic H. Strontium substituted biomimetic calcium phosphate system derived from cuttlefish bone. *JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B-APPLIED BIOMATERIALS*. 2020;108(4):1697–1709. https://doi.org/10.1002/jbm.b.34515

42. Ressler A, Gudelj A, Zadro K, Antunovic M, Cvetnic M, Ivankovic M, Ivankovic H. From Bio-waste to Bone Substitute: Synthesis of Biomimetic Hydroxyapatite and Its Use in Chitosan-based Composite Scaffold Preparation. *CHEMICAL AND BIOCHEMICAL ENGINEERING QUARTERLY*. 2020;34(2):59–71. https://doi.org/10.15255/CABEQ.2020.1783

43. Roopalakshmi S, Ravishankar R, Belaldavar S, Prasad R, Phani A. Investigation of Structural and Morphological Characteristic of Hydroxyapatite Synthesized by Sol-Gel Process. Vol. 4. 2017:12026–12031. https://doi.org/10.1016/j.matpr.2017.09.126

44. Saitoh A, Goto H, Tamada Y, Ogawa Y, Takebe H. Immobilization of Fluorine in Reduced Slag by Addition of Crystalline Hydroxyapatite and Glassy Calcium Phosphate Using a Calcining Process. *MATERIALS TRANSACTIONS*. 2020;61(8):1679–1683. https://doi.org/10.2320/matertrans.MT-M2020098

45. Sheikh L, Sinha S, Singhababu Y, Verma V, Tripathy S, Nayar S. Traversing the profile of biomimetically nanoengineered iron substituted hydroxyapatite: synthesis, characterization, property evaluation, and drug release modeling. *RSC ADVANCES*. 2018;8(35):19389–19401. https://doi.org/10.1039/c8ra01539b

46. Singh R, Singh D, Singh J. Biomagnetic mesoporous nanorods for hyperthermia, drug delivery, and tissue regeneration applications. *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 2021;97(1):155–166. https://doi.org/10.1007/s10971-020-05421-w

47. Tank K, Chudasama K, Thaker V, Joshi M. Cobalt-doped nanohydroxyapatite: synthesis, characterization, antimicrobial and hemolytic studies. *JOURNAL OF NANOPARTICLE RESEARCH*. 2013;15(5). https://doi.org/10.1007/s11051-013-1644-z

48. Uskokovic V. The role of hydroxyl channel in defining selected physicochemical peculiarities exhibited by hydroxyapatite. *RSC ADVANCES*. 2015;5(46):36614–36633. https://doi.org/10.1039/c4ra17180b

49. Wijayanti I, Sookchoo P, Prodpran T, Mohan C, Aluko R, Benjakul S. Physical and chemical characteristics of Asian sea bass bio-calcium powders as affected by ultrasonication treatment and drying method. *JOURNAL OF FOOD BIOCHEMISTRY*. 2021;45(4). https://doi.org/10.1111/jfbc.13652

50. Yazdani N, Javadpour J, Yekta B, Hamrang M. Hydrothermal Synthesis of Cobalt- Doped Hydroxyapatite Nanopartieles: Structure, Magnetic Behaviour, Bioaetivity and Antibacterial Activity. *IRANIAN JOURNAL OF MATERIALS SCIENCE AND ENGINEERING*. 2019;16(1):39–48. https://doi.org/10.22068/ijmse.16.1.39

51. Zilm M, Chen L, Sharma V, McDannald A, Jain M, Ramprasad R, Wei M. Hydroxyapatite substituted by transition metals: experiment and theory. *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*. 2016;18(24):16457–16465. https://doi.org/10.1039/c6cp00474a

52. Zykin M, Babeshkin K, Magdysyuk O, Anokhin E, Schnelle W, Felser C, Jansen M, Kazin P. Slow Spin Relaxation in Dioxocobaltate(II) Anions Embedded in the Lattice of Calcium Hydroxyapatite. *INORGANIC CHEMISTRY*. 2017;56(22):14077–14083. https://doi.org/10.1021/acs.inorgchem.7b02237

Коцитати

53. Ajdukovic Z, Mihajilov-Krstev T, Ignjatovic N, Stojanovic Z, Mladenovic-Antic S, Kocic B, Najman S, Petrovic N, Uskokovic D. In Vitro Evaluation of Nanoscale Hydroxyapatite-Based Bone Reconstructive Materials with Antimicrobial Properties. *JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY*. 2016;16(2):1420–1428. https://doi.org/10.1166/jnn.2016.10699

54. Ignjatovic N, Ajdukovic Z, Rajkovic J, Najman S, Mihailovic D, Uskokovic D. Enhanced Osteogenesis of Nanosized Cobalt-substituted Hydroxyapatite. *JOURNAL OF BIONIC ENGINEERING*. 2015;12(4):604–612. https://doi.org/10.1016/S1672-6529(14)60150-5

55. Ignjatovic N, Ajdukovic Z, Savic V, Najman S, Mihailovic D, Vasiljevic P, Stojanovic Z, Uskokovic V, Uskokovic D. Nanoparticles of cobalt-substituted hydroxyapatite in regeneration of mandibular osteoporotic

bones. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE*. 2013;24(2):343–354. https://doi.org/10.1007/s10856-012-4793-1

56. Lukic M, Skapin S, Markovic S, Uskokovic D. Processing Route to Fully Dense Nanostructured HAp Bioceramics: From Powder Synthesis to Sintering. *JOURNAL OF THE AMERICAN CERAMIC SOCIETY*. 2012;95(11). https://doi.org/10.1111/j.1551-2916.2012.05376.x
57. Lukic M, Stojanovic Z, Skapin S, Macek-Krzmanc M, Mitric M, Markovic S, Uskokovic D. Dense fine-grained biphasic calcium phosphate (BCP) bioceramics designed by two-step sintering. *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*. 2011;31(1–2):19–27. https://doi.org/10.1016/j.jeurceramsoc.2010.09.006
58. Mitic Z, Stolic A, Stojanovic S, Najman S, Ignjatovic N, Nikolic G, Trajanovic M. Instrumental methods and techniques for structural and physicochemical characterization of biomaterials and bone tissue: A review. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2017;79:930–949. https://doi.org/10.1016/j.msec.2017.05.127
59. Uskokovic V, Uskokovic D. Nanosized hydroxyapatite and other calcium phosphates: Chemistry of formation and application as drug and gene delivery agents. *JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B-APPLIED BIOMATERIALS*. 2011;96B(1):152–191. https://doi.org/10.1002/jbm.b.31746

Аутоцитати

60. Ignjatovic N, Mancic L, Vukovic M, Stojanovic Z, Nikolic M, Skapin S, Jovanovic S, Veselinovic L, Uskokovic V, Lazic S, Markovic S, Lazarevic M, Uskokovic D. Rare-earth (Gd3+,Yb3+/Tm3+,Eu3+) co-doped hydroxyapatite as magnetic, up-conversion and down-conversion materials for multimodal imaging. *SCIENTIFIC REPORTS*. 2019;9. https://doi.org/10.1038/s41598-019-52885-0
61. Markovic S, Veselinovic L, Lukic M, Karanovic L, Bracko I, Ignjatovic N, Uskokovic D. Synthetical bone-like and biological hydroxyapatites: a comparative study of crystal structure and morphology. *BIOMEDICAL MATERIALS*. 2011;6(4). https://doi.org/10.1088/1748-6041/6/4/045005

4. Uskokovic V, Markovic S, Veselinovic L, Skapin S, Ignjatovic N, Uskokovic DP. Insights into the kinetics of thermally induced crystallization of amorphous calcium phosphate. *Physical Chemistry Chemical Physics*. 2018;20(46):29221–29235. https://doi.org/10.1039/c8cp06460a

Хетероцитати

1. Biswas P, Liang B, Turner-Walker G, Rathod J, Lee Y, Wang C, Chang C. Systematic changes of bone hydroxyapatite along a charring temperature gradient: An integrative study with dissolution behavior. *SCIENCE OF THE TOTAL ENVIRONMENT*. 2021;766. https://doi.org/10.1016/j.scitotenv.2020.142601
2. Cao X, Wang G, Wang K, Guo L, Cao Y, Cao X, Yang Y. Organic Phosphorous and Calcium Source Induce the Synthesis of Yolk-Shell Structured Microspheres of Calcium Phosphate with High-Specific Surface Area: Application in HEL Adsorption. *NANOSCALE RESEARCH LETTERS*. 2020;15(1). https://doi.org/10.1186/s11671-020-03298-w
3. Cordova-Udaeta M, Kim Y, Yasukawa K, Kato Y, Fujita T, Dodbiba G. Study on the Synthesis of Hydroxyapatite under Highly Alkaline Conditions. *INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH*. 2021;60(11):4385–4396. https://doi.org/10.1021/acs.iecr.0c05969
4. Dorozhkin S. Synthetic amorphous calcium phosphates (ACPs): preparation, structure, properties, and biomedical applications. *BIOMATERIALS SCIENCE*. 2021;9(23):7748–7798. https://doi.org/10.1039/d1bm01239h
5. Eden M. Structure and formation of amorphous calcium phosphate and its role as surface layer of nanocrystalline apatite: Implications for bone mineralization. *MATERIALIA*. 2021;17. https://doi.org/10.1016/j.mtla.2021.101107

6. Gelli R, Briccolani-Bandini L, Pagliai M, Cardini G, Ridi F, Baglioni P. Exploring the effect of Mg2+ substitution on amorphous calcium phosphate nanoparticles. *JOURNAL OF COLLOID AND INTERFACE SCIENCE*. 2022;606:444–453. https://doi.org/10.1016/j.jcis.2021.08.033
7. Gelli R, Di Pompo G, Graziani G, Avnet S, Baldini N, Baglioni P, Ridi F. Unravelling the Effect of Citrate on the Features and Biocompatibility of Magnesium Phosphate-Based Bone Cements. *ACS BIOMATERIALS SCIENCE & ENGINEERING*. 2020;6(10):5538–5548. https://doi.org/10.1021/acsbiomaterials.0c00983
8. Gelli R, Tonelli M, Ridi F, Bonini M, Kwaambwa H, Rennie A, Baglioni P. Modifying the crystallization of amorphous magnesium-calcium phosphate nanoparticles with proteins from Moringa oleifera seeds. *JOURNAL OF COLLOID AND INTERFACE SCIENCE*. 2021;589:367–377. https://doi.org/10.1016/j.jcis.2021.01.008
9. Griesiute D, Sinusaite L, Kizalaite A, Antuzevics A, Mazeika K, Baltrunas D, Goto T, Sekino T, Kareiva A, Zarkov A. The influence of Fe3+ doping on thermally induced crystallization and phase evolution of amorphous calcium phosphate. *CRYSTENGCOMM*. 2021;23(26):4627–4637. https://doi.org/10.1039/d1ce00371b
10. Jia C, Wu L, Chen Q, Ke P, De Yoreo J, Guan B. Structural evolution of amorphous calcium sulfate nanoparticles into crystalline gypsum phase. *CRYSTENGCOMM*. 2020;22(41):6805–6810. https://doi.org/10.1039/d0ce01173h
11. Jin B, Liu Z, Shao C, Chen J, Liu L, Tang R, De Yoreo J. Phase Transformation Mechanism of Amorphous Calcium Phosphate to Hydroxyapatite Investigated by Liquid-Cell Transmission Electron Microscopy. *CRYSTAL GROWTH & DESIGN*. 2021;21(9):5126–5134. https://doi.org/10.1021/acs.cgd.1c00503
12. Le Grill S, Soulie J, Coppel Y, Roblin P, Lecante P, Marsan O, Charvillat C, Bertrand G, Rey C, Brouillet F. Spray-drying-derived amorphous calcium phosphate: a multi-scale characterization. *JOURNAL OF MATERIALS SCIENCE*. 2021;56(2):1189–1202. https://doi.org/10.1007/s10853-020-05396-7
13. Rubenis K, Zemjane S, Vecstaudza J, Bitenieks J, Locs J. Densification of amorphous calcium phosphate using principles of the cold sintering process. *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*. 2021;41(1):912–919. https://doi.org/10.1016/j.jeurceramsoc.2020.08.074
14. Sinusaite L, Kareiva A, Zarkov A. Thermally Induced Crystallization and Phase Evolution of Amorphous Calcium Phosphate Substituted with Divalent Cations Having Different Sizes. *CRYSTAL GROWTH & DESIGN*. 2021;21(2):1242–1248. https://doi.org/10.1021/acs.cgd.0c01534
15. Sinusaite L, Popov A, Raudonyte-Svirbutaviciene E, Yang J, Kareiva A, Zarkov A. Effect of Mn doping on hydrolysis of low-temperature synthesized metastable alpha-tricalcium phosphate. *CERAMICS INTERNATIONAL*. 2021;47(9):12078–12083. https://doi.org/10.1016/j.ceramint.2021.01.052
16. Sun R, Ahlen M, Tai C, Bajnoczi E, de Kleijne F, Ferraz N, Persson I, Stromme M, Cheung O. Highly Porous Amorphous Calcium Phosphate for Drug Delivery and Bio-Medical Applications. *NANOMATERIALS*. 2020;10(1). https://doi.org/10.3390/nano10010020
17. Zhang L, He L, Yang Y, Hong H, Tang L, Sun L. Probing the beam-induced heating effect inside a transmission electron microscope by nanoparticle labels. *MICRO & NANO LETTERS*. 2021;16(6):344–349. https://doi.org/10.1049/mna2.12049

Коцитати

18. Degli Esposti L, Markovic S, Ignjatovic N, Panseri S, Montesi M, Adamiano A, Fosca M, Rau J, Uskokovic V, Iafisco M. Thermal crystallization of amorphous calcium phosphate combined with citrate and fluoride doping: a novel route to produce hydroxyapatite bioceramics. *JOURNAL OF MATERIALS CHEMISTRY B*. 2021;9(24):4832–4845. https://doi.org/10.1039/d1tb00601k
19. Ignjatovic N, Markovic S, Jugovic D, Uskokovic V, Uskokovic D. From molecules to nanoparticles to functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2020;85(11):1383–1403. https://doi.org/10.2298/JSC200426035I

20. Pavlovic M, Pavlovic M, Erakovic S, Stevanovic J, Panic V, Ignjatovic N. Simultaneous anodization/anaphoretic electrodeposition synthesis of nano calcium phosphate/titanium oxide composite coatings assisted with chitosan oligosaccharide lactate. *MATERIALS LETTERS*. 2020;261. https://doi.org/10.1016/j.matlet.2019.127121
21. Uskokovic T, Uskokovic E, Wu V, Uskokovic V. Calcium Phosphate and Senescence of Orange Jubilees in the Summertime. *ACS APPLIED BIO MATERIALS*. 2020;3(6):3770–3784. https://doi.org/10.1021/acsabm.0c00357
22. Uskokovic V, Huynh E, Wu V. Mimicking the transit of nanoparticles through the body: when the path determines properties at the destination. *JOURNAL OF NANOPARTICLE RESEARCH*. 2020;22(7). https://doi.org/10.1007/s11051-020-04892-w
23. Uskokovic V, Jankovic-Castvan I, Wu V. Bone Mineral Crystallinity Governs the Orchestration of Ossification and Resorption during Bone Remodeling. *ACS BIOMATERIALS SCIENCE & ENGINEERING*. 2019;5(7):3483–3498. https://doi.org/10.1021/acsbiomaterials.9b00255
24. Uskokovic V, Tang S, Nikolic M, Markovic S, Wu V. Calcium phosphate nanoparticles as intrinsic inorganic antimicrobials: In search of the key particle property. *BIOINTERPHASES*. 2019;14(3). https://doi.org/10.1116/1.5090396
25. Uskokovic V. Disordering the Disorder as the Route to a Higher Order: Incoherent Crystallization of Calcium Phosphate through Amorphous Precursors. *CRYSTAL GROWTH & DESIGN*. 2019;19(8):4340–4357. https://doi.org/10.1021/acs.cgd.9b00061
26. Uskokovic V. Ion-doped hydroxyapatite: An impasse or the road to follow? *CERAMICS INTERNATIONAL*. 2020;46(8):11443–11465. https://doi.org/10.1016/j.ceramint.2020.02.001
27. Uskokovic V. Mechanism of formation governs the mechanism of release of antibiotics from calcium phosphate nanopowders and cements in a drug-dependent manner. *JOURNAL OF MATERIALS CHEMISTRY B*. 2019;7(25):3982–3992. https://doi.org/10.1039/c9tb00444k
28. Uskokovic V. Visualizing different crystalline states during the infrared imaging of calcium phosphates. *VIBRATIONAL SPECTROSCOPY*. 2020;108. https://doi.org/10.1016/j.vibspec.2020.103045
29. Uskokovic V. X-ray photoelectron and ion scattering spectroscopic surface analyses of amorphous and crystalline calcium phosphate nanoparticles with different chemical histories. *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*. 2020;22(10):5531–5547. https://doi.org/10.1039/c9cp06529f
30. Wu V, Ahmed M, Mostafa M, Uskokovic V. Empirical and theoretical insights into the structural effects of selenite doping in hydroxyapatite and the ensuing inhibition of osteoclasts. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2020;117. https://doi.org/10.1016/j.msec.2020.111257
31. Wu V, Huynh E, Tang S, Uskokovic V. Calcium phosphate nanoparticles as intrinsic inorganic antimicrobials: mechanism of action. *BIOMEDICAL MATERIALS*. 2021;16(1). https://doi.org/10.1088/1748-605X/aba281

5. Ignjatovic NL, Mancic L, Vukovic M, Stojanovic Z, Nikolic MG, Skapin S, Jovanovic S, Veselinovic L, Uskokovic V, Lazic S, Markovic S, Lazarevic MM, Uskokovic DP. Rare-earth (Gd3+,Yb3+/Tm3+,Eu3+) co-doped hydroxyapatite as magnetic, up-conversion and down-conversion materials for multimodal imaging. *Scientific Reports*. 2019;9:16305. https://doi.org/10.1038/s41598-019-52885-0

Хетероцитати

1. Acar S, Kaygili O, Ates T, Dorozhkin SV, Bulut N, Ates B, Koytepe S, Ercan F, Kebiroglu H, Hssain AH. Experimental characterization and theoretical investigation of Ce/Yb co-doped hydroxyapatites. *Materials Chemistry and Physics*. 2022;276. https://doi.org/10.1016/j.matchemphys.2021.125444

2. Afifi M, Ahmed MK, Ibrahium HA, Awwad NS, Abdel-Fattah E, Alshahrani MY. Improvement of physicochemical properties of ternary nanocomposites based on hydroxyapatite/CuO/graphene oxide for biomedical usages. *Ceramics International*. 2021. https://doi.org/10.1016/j.ceramint.2021.10.186
3. Agid RS, Kaygili O, Bulut N, Dorozhkin SV, Ates T, Koytepe S, Ates B, Ercan I, İnce T, Mahmood BK. Investigation of the effects of Pr doping on the structural properties of hydroxyapatite: an experimental and theoretical study. *Journal of the Australian Ceramic Society*. 2020;56(4):1501–1513. https://doi.org/10.1007/s41779-020-00495-9
4. Baldassarre F, Altomare A, Corriero N, Mesto E, Lacalamita M, Bruno G, Sacchetti A, Dida B, Karaj D, Ventura G, Capitelli F, Siliqi D. Crystal Chemistry and Luminescence Properties of Eu-Doped Polycrystalline Hydroxyapatite Synthesized by Chemical Precipitation at Room Temperature. *CRYSTALS*. 2020;10(4). https://doi.org/10.3390/cryst10040250
5. Chen P, Wang F, Qiao Y, Zhang Z. Luminescence of samarium doped hydroxyapatite containing strontium: Effects of doping concentration. *Journal of Rare Earths*. 2021. https://doi.org/10.1016/j.jre.2021.02.006
6. Demir B, Derince D, Dayioglu T, Koroglu L, Karacaoglu E, Uz V, Ayas E. Effects of doping content and crystallite size on luminescence properties of Eu3+doped fluorapatites obtained from natural waste. *CERAMICS INTERNATIONAL*. 2021;47(24):34657–34666. https://doi.org/10.1016/j.ceramint.2021.09.004
7. Demirel B, Saban E, Yaras A, Akkurt F. Synthesis of Gd+3 doped hydroxyapatite ceramics: optical, thermal and electrical properties. *JOURNAL OF ASIAN CERAMIC SOCIETIES*. 2021;9(3):865–873. https://doi.org/10.1080/21870764.2021.1920160
8. dos Apostolos R, Cipreste M, de Sousa R, de Sousa E. Multifunctional hybrid nanosystems based on mesoporous silica and hydroxyapatite nanoparticles applied as potential nanocarriers for theranostic applications. *JOURNAL OF NANOPARTICLE RESEARCH*. 2020;22(12). https://doi.org/10.1007/s11051-020-05105-0
9. Dwivedi A, Srivastava M, Srivastava A, Srivastava S. Synthesis of high luminescent Eu3+ doped nanoparticle and its application as highly sensitive and selective detection of Fe3+ in real water and human blood serum. *SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY*. 2021;260. https://doi.org/10.1016/j.saa.2021.119942
10. Ghiasi B, Sefidbakht Y, Mozaffari-Jovin S, Gharehcheloo B, Mehrarya M, Khodadadi A, Rezaei M, Siadat S, Uskokovic V. Hydroxyapatite as a biomaterial - a gift that keeps on giving. *DRUG DEVELOPMENT AND INDUSTRIAL PHARMACY*. 2020;46(7):1035–1062. https://doi.org/10.1080/03639045.2020.1776321
11. Gupta SK, Sudarshan K, Kadam RM. Optical nanomaterials with focus on rare earth doped oxide: A Review. *Materials Today Communications*. 2021;27. https://doi.org/10.1016/j.mtcomm.2021.102277
12. Ibrahimzade L, Kaygili O, Dundar S, Ates T, Dorozhkin S, Bulut N, Koytepe S, Ercan F, Gurses C, Hssain A. Theoretical and experimental characterization of Pr/Ce co-doped hydroxyapatites. *JOURNAL OF MOLECULAR STRUCTURE*. 2021;1240. https://doi.org/10.1016/j.molstruc.2021.130557
13. Janulevicius M, Klimkevicius V, Mikoliunaite L, Vengalis B, Vargalis R, Sakirzanovas S, Plausinaitiene V, Zilinskas A, Katelnikovas A. Ultralight Magnetic Nanofibrous GdPO4 Aerogel. *ACS OMEGA*. 2020;5(23):14180–14185. https://doi.org/10.1021/acsomega.0c01980
14. Kermani F, Mollazadeh S, Kargozar S, Vahdati Khakhi J. Improved osteogenesis and angiogenesis of theranostic ions doped calcium phosphates (CaPs) by a simple surface treatment process: A state-of-the-art study. *Materials Science and Engineering C*. 2021;124. https://doi.org/10.1016/j.msec.2021.112082
15. Krishnapriya T, Deepti A, Chakrapani P, Asha A, Jayaraj M. Eggshell Derived Europium Doped Hydroxyapatite Nanoparticles for Cell Imaging Application. *JOURNAL OF FLUORESCENCE*. 2021;31(6):1927–1936. https://doi.org/10.1007/s10895-021-02814-0
16. Kuz'micheva GM, Timaeva OI, Novikova NN, Yakunin SN, Rogachev AV, Svetogorov RD, Pashkin II, Terekhova RP. Antimicrobial Activity of Composite Hydrogels in the Poly(N-vinylpyrrolidone)–RE(NO3)3 · xH2O (RE Are Rare-Earth Ions) System. *Crystallography Reports*. 2020;65(6):922–932. https://doi.org/10.1134/S1063774520060218

17. Liu P, Li Z, Yuan L, Sun X, Zhou Y. Pourbaix-Guided Mineralization and Site-Selective Photoluminescence Properties of Rare Earth Substituted B-Type Carbonated Hydroxyapatite Nanocrystals. *MOLECULES*. 2021;26(3). https://doi.org/10.3390/molecules26030540

18. Milojkov D, Sokic M, Radosavljevic-Mihajlovic A, Stanic V, Manojlovic V, Mutavdzic D, Milanovic M. Influence of Pr3+ and CO32- Ions Coupled Substitution on Structural, Optical and Antibacterial Properties of Fluorapatite Nanopowders Obtained by Precipitation. *METALS*. 2021;11(9). https://doi.org/10.3390/met11091384

19. Mondal S, Nguyen VT, Park S, Choi J, Thien Vo TM, Shin JH, Kang Y-H, Oh J. Rare earth element doped hydroxyapatite luminescent bioceramics contrast agent for enhanced biomedical imaging and therapeutic applications. *Ceramics International*. 2020;46(18):29249–29260. https://doi.org/10.1016/j.ceramint.2020.08.099

20. Nasiri S, Hosseinnezhad M, Rabiei M, Palevicius A, Janusas G. The effect of calcination temperature on the photophysical and mechanical properties of copper iodide (5 mol%)-doped hydroxyapatite. *OPTICAL MATERIALS*. 2021;121. https://doi.org/10.1016/j.optmat.2021.111559

21. Park S, Park J, Kim B, Lee H, Walsh A, Zhu K, Kim D, Jung H. Sustainable lead management in halide perovskite solar cells. *NATURE SUSTAINABILITY*. 2020;3(12). https://doi.org/10.1038/s41893-020-0586-6

22. Paterlini V, Bettinelli M, Rizzi R, El Khouri A, Rossi M, Della Ventura G, Capitelli F. Characterization and Luminescence of Eu3+- and Gd3+-Doped Hydroxyapatite Ca-10(PO4)(6)(OH)(2). *CRYSTALS*. 2020;10(9). https://doi.org/10.3390/cryst10090806

23. Rizzi R, Capitelli F, Lazoryak B, Morozov V, Piccinelli F, Altomare A. A Comprehensive Study of Ca9Tb(PO4)(7) and Ca9Ho(PO4)(7) Doped beta-Tricalcium Phosphates: Ab initio Crystal Structure Solution, Rietveld Analysis, and Dielectric Properties. *CRYSTAL GROWTH & DESIGN*. 2021;21(4):2263–2276. https://doi.org/10.1021/acs.cgd.0c01683

24. Sahu P, Agrawal S. Structural and photoluminescence behavior of a blue-green-emitting Y6Ba4(SiO4)(6)F-2:xTb(3+) fluorapatite phosphor. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*. 2020;31(21):18692–18705. https://doi.org/10.1007/s10854-020-04411-6

25. Singh V, Devi C, Rao B, Rao A, Singh N, Mistry B. Narrow-band ultraviolet B (UVB) emitting CaZr4(PO4)(6) doped with Gd3+ phosphor. *OPTIK*. 2021;226. https://doi.org/10.1016/j.ijleo.2020.165932

26. Sirajunisha H, Sakthivel P, Balakrishnan T. Structural, photoluminescence, antibacterial and biocompatibility features of zinc incorporated hydroxyapatite nanocomposites. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*. 2021;32(4):5050–5064. https://doi.org/10.1007/s10854-021-05239-4

27. Thuy DDT, Minh VTN, Xuan TN, Huan PV, Hung V-P, Nguyen D-H, Hoan BT, Manh TL, Van HN. Dual-mode green emission and temperature sensing properties of rare-earth-element-doped biphasic calcium phosphate composites. *Journal of Alloys and Compounds*. 2021;871. https://doi.org/10.1016/j.jallcom.2021.159483

Коцитати

28. Ignjatovic N, Markovic S, Jugovic D, Uskokovic V, Uskokovic D. From molecules to nanoparticles to functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2020;85(11):1383–1403. https://doi.org/10.2298/JSC200426035I

29. Uskokovic V. Ion-doped hydroxyapatite: An impasse or the road to follow? *CERAMICS INTERNATIONAL*. 2020;46(8):11443–11465. https://doi.org/10.1016/j.ceramint.2020.02.001

30. Wu V, Ahmed M, Mostafa M, Uskokovic V. Empirical and theoretical insights into the structural effects of selenite doping in hydroxyapatite and the ensuing inhibition of osteoclasts. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2020;117. https://doi.org/10.1016/j.msec.2020.111257

6. Stankovic A, Veselinovic L, Skapin SD, Markovic S, Uskokovic D. Controlled mechanochemically assisted synthesis of ZnO nanopowders in the presence of oxalic acid. *Journal of Materials Science*. 2011;46(11):3716–3724. https://doi.org/10.1007/s10853-011-5273-6

Хетероцитати

1. Azeez H, Barzinjy A, Hamad S. Structure, Synthesis and Applications of ZnO Nanoparticles: A Review. *JORDAN JOURNAL OF PHYSICS*. 2020;13(2):123–135. https://doi.org/10.47011/13.2.4
2. Ba-Abbad M, Kadhum A, Mohamad A, Takriff M, Sopian K. Optimization of process parameters using D-optimal design for synthesis of ZnO nanoparticles via sol-gel technique. *JOURNAL OF INDUSTRIAL AND ENGINEERING CHEMISTRY*. 2013;19(1):99–105. https://doi.org/10.1016/j.jiec.2012.07.010
3. Ba-Abbad M, Kadhum A, Mohamad A, Takriff M, Sopian K. The effect of process parameters on the size of ZnO nanoparticles synthesized via the sol-gel technique. *JOURNAL OF ALLOYS AND COMPOUNDS*. 2013;550:63–70. https://doi.org/10.1016/j.jallcom.2012.09.076
4. Chidhambaram N. Augmented antibacterial efficacies of the aluminium doped ZnO nanoparticles against four pathogenic bacteria. *Materials Research Express*. 2019;6(7). https://doi.org/10.1088/2053-1591/ab1804
5. Choi M, Na H, Shim G, Cho J, Kim M, Kim S, Baek S, Jin C, Lee K. Simple and scalable synthesis of urchin-like ZnO nanoparticles via a microwave-assisted drying process. *CERAMICS INTERNATIONAL*. 2021;47(10):14621–14629. https://doi.org/10.1016/j.ceramint.2021.02.045
6. Dutta G, Sugumaran A. Bioengineered zinc oxide nanoparticles: Chemical, green, biological fabrication methods and its potential biomedical applications. *JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY*. 2021;66. https://doi.org/10.1016/j.jddst.2021.102853
7. El Saeed A, Abd El-Fattah M, Azzam A. Synthesis of ZnO nanoparticles and studying its influence on the antimicrobial, anticorrosion and mechanical behavior of polyurethane composite for surface coating. *DYES AND PIGMENTS*. 2015;121:282–289. https://doi.org/10.1016/j.dyepig.2015.05.037
8. Gancheva M, Naydenov A, Iordanova R, Nihtianova D, Stefanov P. Mechanochemically assisted solid state synthesis, characterization, and catalytic properties of MgWO4. *JOURNAL OF MATERIALS SCIENCE*. 2015;50(9):3447–3456. https://doi.org/10.1007/s10853-015-8904-5
9. Huerta-Aguilar C, Ramirez-Alejandre A, Thangarasu P, Arenas-Alatorre J, Reyes-Dominguez I, Corea M. Crystal phase induced band gap energy enhancing the photo-catalytic properties of Zn-Fe2O4/Au NPs: experimental and theoretical studies. *CATALYSIS SCIENCE & TECHNOLOGY*. 2019;9(12):3066–3080. https://doi.org/10.1039/c9cy00678h
10. Ivanenko I, Hutsul K, Krymets G. The precipitation synthesis of zinc (II) oxide for photocatalytic degradation of anionic and cationic dyes. *APPLIED NANOSCIENCE*. n.d. https://doi.org/10.1007/s13204-021-01694-x
11. Karimi S, Ataie A. Characterization of mechanothermally processed nanostructured ZnO. *INTERNATIONAL JOURNAL OF MINERALS METALLURGY AND MATERIALS*. 2016;23(5):588–594. https://doi.org/10.1007/s12613-016-1270-8
12. Khan S, Abid S, Jamil S, Aqib A, Faisal M, Janjua M. Layer by Layer Assembly of Zinc Oxide Nanotubes and Nanoflowers as Catalyst for Separate and Simultaneous Catalytic Degradation of Dyes and Fuel Additive. *CHEMISTRYSELECT*. 2019;4(19):5548–5559. https://doi.org/10.1002/slct.201900645
13. Kolodziejczak-Radzimska A, Jesionowski T. Zinc Oxide-From Synthesis to Application: A Review. *MATERIALS*. 2014;7(4):2833–2881. https://doi.org/10.3390/ma7042833
14. Kumar S, Varma RS, Zboril R, Gawande MB. Chapter 3: Support Morphology-dependent Activity of Nanocatalysts. *RSC Catalysis Series*. 2019;2019-January(38):84–114. https://doi.org/10.1039/9781788016292-00084

15. Morsi S, Mohsen R, Selim M, El-Sherif H. Sol-gel, Hydrothermal, and Combustion Synthetic Methods of Zinc Oxide Nanoparticles and Their Modification with Polyanifine for Antimicrobial Nanocomposites Application. *EGYPTIAN JOURNAL OF CHEMISTRY*. 2019;62(6):1531–1544. https://doi.org/10.21608/ejchem.2019.6952.1578
16. Neto M, Britt D, Jackson K, Coneglian C, Inoue T, Batista M. Early growth of corn seedlings after seed priming with magnetite nanoparticles synthetised in easy way. *ACTA AGRICULTURAE SCANDINAVICA SECTION B-SOIL AND PLANT SCIENCE*. 2021;71(2):91–97. https://doi.org/10.1080/09064710.2020.1852304
17. Panigrahi U, Sahu B, Behuria H, Sahu S, Dhal S, Hussain S, Mallick P. Synthesis, characterization and bioactivity of thio-acetamide modified ZnO nanoparticles embedded in zinc acetate matrix. *NANO EXPRESS*. 2021;2(1). https://doi.org/10.1088/2632-959X/abdad8
18. Parihar V, Raja M, Paulose R. A BRIEF REVIEW OF STRUCTURAL, ELECTRICAL AND ELECTROCHEMICAL PROPERTIES OF ZINC OXIDE NANOPARTICLES. *REVIEWS ON ADVANCED MATERIALS SCIENCE*. 2018;53(2):119–130. https://doi.org/10.1515/rams-2018-0009
19. Ponnamma D, Cabibihan J, Rajan M, Pethaiah S, Deshmukh K, Gogoi J, Pasha S, Ahamed M, Krishnegowda J, Chandrashekar B, Polu A, Cheng C. Synthesis, optimization and applications of ZnO/polymer nanocomposites. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2019;98:1210–1240. https://doi.org/10.1016/j.msec.2019.01.081
20. Popa M, Mesaros A, Mereu R, Suciu R, Vasile B, Gabor M, Ciontea L, Petrisor T. Optical properties correlated with morphology and structure of TEAH modified ZnO nanoparticles via precipitation method. *JOURNAL OF ALLOYS AND COMPOUNDS*. 2013;574:255–259. https://doi.org/10.1016/j.jallcom.2013.04.078
21. Rad M, Dehghanpour S. ZnO as an efficient nucleating agent and morphology template for rapid, facile and scalable synthesis of MOF-46 and ZnO@MOF-46 with selective sensing properties and enhanced photocatalytic ability. *RSC ADVANCES*. 2016;6(66):61784–61793. https://doi.org/10.1039/c6ra12410k
22. Satpathy S, Panigrahi U, Panda S, Biswal R, Luyten W, Mallick P. Structural, optical, antimicrobial and ferromagnetic properties of Zn1-xLaxO nanorods synthesized by chemical route. *JOURNAL OF ALLOYS AND COMPOUNDS*. 2021;865. https://doi.org/10.1016/j.jallcom.2021.158937
23. Sheikh M, Pazirofteh M, Dehghani M, Asghari M, Rezakazemi M, Valderrama C, Cortina J. Application of ZnO nanostructures in ceramic and polymeric membranes for water and wastewater technologies: A review. *CHEMICAL ENGINEERING JOURNAL*. 2020;391. https://doi.org/10.1016/j.cej.2019.123475
24. Tadjarodi A, Imani M, Izadi M, Shokrayian J. Solvent free synthesis of ZnO nanostructures and evaluation of their capability for water treatment. *MATERIALS RESEARCH BULLETIN*. 2015;70:468–477. https://doi.org/10.1016/j.materresbull.2015.04.059
25. Tadjarodi A, Izadi M, Imani M. Synthesis and characterization of the special ZnO nanostructure by mechanochemical process. *MATERIALS LETTERS*. 2013;92:108–110. https://doi.org/10.1016/j.matlet.2012.10.045
26. Wagener P, Lau M, Breitung-Faes S, Kwade A, Barcikowski S. Physical fabrication of colloidal ZnO nanoparticles combining wet-grinding and laser fragmentation. *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. 2012;108(4):793–799. https://doi.org/10.1007/s00339-012-6971-x
27. Zhuravlev M, Sazonov R, Kholodnaya G, Pyatkov I, Ponomarev D, Konusov F, Lapteva O, Gadirov R. Synthesis and characterization of zinc oxide nanopowder. *INORGANIC AND NANO-METAL CHEMISTRY*. 2021;51(6):798–804. https://doi.org/10.1080/24701556.2020.1809460

Коцитати

28. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC161207011I

29. Stevanović M, Lukić MJ, Stanković A, Filipović N, Kuzmanović M, Janićijević Z. Biomedical inorganic nanoparticles: Preparation, properties, and perspectives. *Materials for Biomedical Engineering: Inorganic Micro- and Nanostructures*. 2019 https://doi.org/10.1016/B978-0-08-102814-8.00001-9

7. Stojanovic ZS, Ignjatovic N, Wu V, Zunic V, Veselinovic L, Skapin S, Miljkovic M, Uskokovic V, Uskokovic D. Hydrothermally processed 1D hydroxyapatite: Mechanism of formation and biocompatibility studies. *Materials Science & Engineering C-Materials for Biological Applications*. 2016;68:746–757. https://doi.org/10.1016/j.msec.2016.06.047

Хетероцитати

1. Balu S, Andra S, Jeevanandam J, Vidyavathy S, Sampath V. Emerging marine derived nanohydroxyapatite and their composites for implant and biomedical applications. *JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS*. 2021;119. https://doi.org/10.1016/j.jmbbm.2021.104523
2. Carvalho E, de Paula D, Neto D, Costa L, Dias D, Feitosa V, Fechine P. Radiopacity and mechanical properties of dental adhesives with strontium hydroxyapatite nanofillers. *JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS*. 2020;101. https://doi.org/10.1016/j.jmbbm.2019.103447
3. da Rocha D, da Silva M, de Campos J, Marcal R, Mijares D, Coelho P, Cruz L. Kinetics of conversion of brushite coatings to hydroxyapatite in alkaline solution. *JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY-JMR&T*. 2018;7(4):479–486. https://doi.org/10.1016/j.jmrt.2018.02.002
4. El-Fiqi A, Buitrago J, Yang S, Kim H. Biomimetically grown apatite spheres from aggregated bioglass nanoparticles with ultrahigh porosity and surface area imply potential drug delivery and cell engineering applications. *ACTA BIOMATERIALIA*. 2017;60:38–49. https://doi.org/10.1016/j.actbio.2017.07.036
5. Elrayah A, Zhi W, Feng S, Al-Ezzi S, Lei H, Weng J. Preparation of Micro/Nano-Structure Copper-Substituted Hydroxyapatite Scaffolds with Improved Angiogenesis Capacity for Bone Regeneration. *MATERIALS*. 2018;11(9). https://doi.org/10.3390/ma11091516
6. Elrayah A, Weng J, Suliman E. Development surface morphologies of porous hydroxyapatite scaffold hydrothermally for bone regeneration. *Proceedings of the International Conference on Computer, Control, Electrical, and Electronics Engineering 2019, ICCCEEE 2019*. 2019 https://doi.org/10.1109/ICCCEEE46830.2019.9071410
7. Heng C, Zhou X, Zheng X, Liu M, Wen Y, Huang H, Fan D, Hui J, Zhang X, Wei Y. Surface grafting of rare-earth ions doped hydroxyapatite nanorods (HAp:Ln (Eu/Tb)) with hydrophilic copolymers based on ligand exchange reaction: Biological imaging and cancer treatment. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2018;91:556–563. https://doi.org/10.1016/j.msec.2018.05.079
8. Jiao H, Zhou K, Shi R, Ma L, Bian T, Tang Y. Hydrothermal synthesis and crystal growth mechanism of hydroxyapatite nanorods. *CAILIAO GONGCHENG-JOURNAL OF MATERIALS ENGINEERING*. 2020;48(1):136–143. https://doi.org/10.11868/j.issn.1001-4381.2018.001206
9. Li Y, Hao H, Zhong Z, Li M, Li J, Du Y, Wu X, Wang J, Zhang S. Assembly Mechanism of Highly Crystalline Selenium-Doped Hydroxyapatite Nanorods via Particle Attachment and Their Effect on the Fate of Stem Cells. *ACS BIOMATERIALS SCIENCE & ENGINEERING*. 2019;5(12):6703–6714. https://doi.org/10.1021/acsbiomaterials.9b01029
10. Liu P, Li Z, Yuan L, Sun X, Zhou Y. Pourbaix-Guided Mineralization and Site-Selective Photoluminescence Properties of Rare Earth Substituted B-Type Carbonated Hydroxyapatite Nanocrystals. *MOLECULES*. 2021;26(3). https://doi.org/10.3390/molecules26030540
11. Maman P, Nagpal M, Aggarwal G. Resorbable polymer fiber reinforced composites in biomedical application. *Materials for Biomedical Engineering: Nanobiomaterials in Tissue Engineering*. 2019 https://doi.org/10.1016/B978-0-12-816909-4.00006-3

12. Nosrati H, Mamoory R, Dabir F, Perez M, Rodriguez M, Le D, Bunger C. In situ synthesis of three dimensional graphene-hydroxyapatite nano powders via hydrothermal process. *MATERIALS CHEMISTRY AND PHYSICS*. 2019;222:251–255. https://doi.org/10.1016/j.matchemphys.2018.10.023

13. Nosrati H, Mamoory R, Le D, Bunger C, Emameh R, Dabir F. Gas injection approach for synthesis of hydroxyapatite nanorods via hydrothermal method. *MATERIALS CHARACTERIZATION*. 2020;159. https://doi.org/10.1016/j.matchar.2019.110071

14. Rodriguez-Gonzalez C, Salas P, Lopez-Marin L, Millan-Chiu B, De la Rosa E. Hydrothermal synthesis of graphene oxide/multiform hydroxyapatite nanocomposite: its influence on cell cytotoxicity. *MATERIALS RESEARCH EXPRESS*. 2018;5(12). https://doi.org/10.1088/2053-1591/aae29c

15. Sabet M, Salmeh F. Green Synthesis of Highly Fluorescent Graphene Oxide/Carbon Quantum Dot Colloid from Rice. *JOURNAL OF ELECTRONIC MATERIALS*. 2020;49(6):3947–3955. https://doi.org/10.1007/s11664-020-08121-x

16. Su Y, Wang J, Li S, Zhu J, Liu W, Zhang Z. Self-templated microwave-assisted hydrothermal synthesis of two-dimensional holey hydroxyapatite nanosheets for efficient heavy metal removal. *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH*. 2019;26(29):30076–30086. https://doi.org/10.1007/s11356-019-06160-4

17. Suchankova P, Kukleva E, Nykl E, Nykl P, Sakmar M, Vlk M, Kozempel J. Hydroxyapatite and Titanium Dioxide Nanoparticles: Radiolabelling and In Vitro Stability of Prospective Theranostic Nanocarriers for(223)Ra and(99m)Tc. *NANOMATERIALS*. 2020;10(9). https://doi.org/10.3390/nano10091632

18. Vuong B, Linh T. EXTRACTION OF PURE HYDROXYAPATITE FROM PORCINE BONE BY THERMAL PROCESS. *METALLURGICAL & MATERIALS ENGINEERING*. 2019;25(1):47–58. https://doi.org/10.30544/410

19. Yigit O, Dikici B, Ozdemir N. Hydrothermal synthesis of nanocrystalline hydroxyapatite-graphene nanosheet on Ti-6Al-7Nb: mechanical and in vitro corrosion performance. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE*. 2021;32(4). https://doi.org/10.1007/s10856-021-06514-w

20. Yigit O, Dikici B, Senocak T, Ozdemir N. One-step synthesis of nano-hydroxyapatite/graphene nanosheet hybrid coatings on Ti6Al4V alloys by hydrothermal method and their in-vitro corrosion responses. *SURFACE & COATINGS TECHNOLOGY*. 2020;394. https://doi.org/10.1016/j.surfcoat.2020.125858

21. Yigit O, Ozdemir N, Dikici B, Kaseem M. Surface Properties of Graphene Functionalized TiO2/nHA Hybrid Coatings Made on Ti6Al7Nb Alloys via Plasma Electrolytic Oxidation (PEO). *MOLECULES*. 2021;26(13). https://doi.org/10.3390/molecules26133903

22. Ying R, Sun R, Li Q, Fu C, Chen K. Synthesis of ultralong hydroxyapatite micro/nanoribbons and their application as reinforcement in collagen scaffolds for bone regeneration. *CERAMICS INTERNATIONAL*. 2019;45(5):5914–5921. https://doi.org/10.1016/j.ceramint.2018.12.059

23. Yu H, Zhu Y, Lu B. Highly efficient and environmentally friendly microwave-assisted hydrothermal rapid synthesis of ultralong hydroxyapatite nanowires. *CERAMICS INTERNATIONAL*. 2018;44(11):12352–12356. https://doi.org/10.1016/j.ceramint.2018.04.022

24. Zhang C, Xu H, Geng X, Wang J, Xiao J, Zhu P. Effect of Spray Distance on Microstructure and Tribological Performance of Suspension Plasma-Sprayed Hydroxyapatite-Titania Composite Coatings. *JOURNAL OF THERMAL SPRAY TECHNOLOGY*. 2016;25(7):1255–1263. https://doi.org/10.1007/s11666-016-0453-1

25. Zheng N, Yin L, Su M, Liu Z, Tsang D, Chen D. Synthesis of shape and structure-dependent hydroxyapatite nanostructures as a superior adsorbent for removal of U(VI). *CHEMICAL ENGINEERING JOURNAL*. 2020;384. https://doi.org/10.1016/j.cej.2019.123262

Коцитати

26. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC161207011I

8. Todorovic ZB, Troter DZ, Dokic-Stojanovic DR, Velickovic AV, Avramovic JM, Stamenkovic OS, Veselinovic LM, Veljkovic VB. Optimization of CaO-catalyzed sunflower oil methanolysis with crude biodiesel as a cosolvent. *Fuel*. 2019;237:903–910. https://doi.org/10.1016/j.fuel.2018.10.056

Хетероцитати

1. Alaei S, Haghighi M, Rahmanivahid B, Shokrani R, Naghavi H. Conventional vs. hybrid methods for dispersion of MgO over magnetic Mg-Fe mixed oxides nanocatalyst in biofuel production from vegetable oil. *RENEWABLE ENERGY*. 2020;154:1188–1203. https://doi.org/10.1016/j.renene.2020.03.039

2. Andrade M, Silva C, Costa T, Neto E, Lavoie J. An experimental investigation on the effect of surfactant for the transesterification of soybean oil over eggshell-derived CaO catalysts. *ENERGY CONVERSION AND MANAGEMENT-X*. 2021;11. https://doi.org/10.1016/j.ecmx.2021.100094

3. Bano S, Ganie A, Sultana S, Sabir S, Khan M. Fabrication and Optimization of Nanocatalyst for Biodiesel Production: An Overview. *FRONTIERS IN ENERGY RESEARCH*. 2020;8. https://doi.org/10.3389/fenrg.2020.579014

4. Bharti P, Singh B, Dey R. Process optimization of biodiesel production catalyzed by CaO nanocatalyst using response surface methodology. *JOURNAL OF NANOSTRUCTURE IN CHEMISTRY*. 2019;9(4):269–280. https://doi.org/10.1007/s40097-019-00317-w

5. Cabrera-Penna M, Rodriguez-Paez J. Calcium oxyhydroxide (CaO/Ca(OH)(2)) nanoparticles: Synthesis, characterization and evaluation of their capacity to degrade glyphosate-based herbicides (GBH). *ADVANCED POWDER TECHNOLOGY*. 2021;32(1):237–253. https://doi.org/10.1016/j.apt.2020.12.007

6. Chang C, Wei H, Chen B, Tan C. In situ catalyst-free biodiesel production from partially wet microalgae treated with mixed methanol and castor oil containing pressurized CO2. *JOURNAL OF SUPERCRITICAL FLUIDS*. 2020;157. https://doi.org/10.1016/j.supflu.2019.104702

7. Dias A, Ramos M, Catarino M, Puna J, Gomes J. Solvent Assisted Biodiesel Production by Co-processing Beef Tallow and Soybean Oil Over Calcium Catalysts. *WASTE AND BIOMASS VALORIZATION*. 2020;11(11):6249–6259. https://doi.org/10.1007/s12649-019-00903-7

8. Faria D, Cipriano D, Schettino M, Neto A, Cunha A, Freitas J. Na,Ca-based catalysts supported on activated carbon for synthesis of biodiesel from soybean oil. *MATERIALS CHEMISTRY AND PHYSICS*. 2020;249. https://doi.org/10.1016/j.matchemphys.2020.123173

9. Ganesan R, Manigandan S, Shanmugam S, Chandramohan V, Sindhu R, Kim S, Brindhadevi K, Pugazhendhi A. A detailed scrutinize on panorama of catalysts in biodiesel synthesis. *SCIENCE OF THE TOTAL ENVIRONMENT*. 2021;777. https://doi.org/10.1016/j.scitotenv.2021.145683

10. Hajek M, Vavra A, Mach P, Strakova A. The use of cosolvents in heterogeneously and homogeneously catalysed methanolysis of oil. *JOURNAL OF ENVIRONMENTAL MANAGEMENT*. 2020;262. https://doi.org/10.1016/j.jenvman.2020.110295

11. Khatibi M, Khorasheh F, Larimi A. Biodiesel production via transesteri fi cation of canola oil in the presence of Na-K doped CaO derived from calcined eggshell. *RENEWABLE ENERGY*. 2021;163:1626–1636. https://doi.org/10.1016/j.renene.2020.10.039

12. Mahmood A, Awan M, Sadaf S, Mukhtar A, Wang X, Fiaz S, Khan S, Ali H, Muhammad F, Hayat Z, Gul F, Fahad S. Bio-diesel production of sunflower through sulphur management in a semi-arid subtropical environment. *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH*. n.d. https://doi.org/10.1007/s11356-021-16688-z

13. Mandari V, Devarai S. Biodiesel Production Using Homogeneous, Heterogeneous, and Enzyme Catalysts via Transesterification and Esterification Reactions: a Critical Review. *BIOENERGY RESEARCH*. n.d. https://doi.org/10.1007/s12155-021-10333-w

14. Mijangos GE, Cuautli C, Romero-Ibarra IC, Vazquez-Arenas J, Santolalla-Vargas CE, Santes V, Castañeda-Galván AA, Pfeiffer H. Experimental and theoretical analysis revealing the underlying chemistry accounting for the heterogeneous transesterification reaction in Na2SiO3 and Li2SiO3 catalysts. *Renewable Energy*. 2022;184:845–856. https://doi.org/10.1016/j.renene.2021.11.090

15. Muhammad R, Umar A, Budiawan B, Bakri R, Sihombing R. Utilization of Duck Eggshell and Chicken Eggshell as Catalyst for Biodiesel Synthesis from Waste Cooking Oil. In: Mart T, Triyono D, Anggraningrum I, eds. Vol. 2168. 2019 https://doi.org/10.1063/1.5132498

16. Ning Y, Niu S, Zhao S, Zhang X, Zhang Y, Han K, Lu C, Zhang X. Characterization of Dolomite Promoted by NaAlO2 and Application as Catalyst in Transesterification by Response Surface Methodology. *CHEMISTRYSELECT*. 2019;4(33):9849–9856. https://doi.org/10.1002/slct.201902061

17. Nyepetsi M, Mbaiwa F, Oyetunji O, Dzade N, de Leeuw N. The Carbonate-catalyzed Transesterification of Sunflower Oil for Biodiesel Production: in situ Monitoring and Density Functional Theory Calculations. *SOUTH AFRICAN JOURNAL OF CHEMISTRY-SUID-AFRIKAANSE TYDSKRIF VIR CHEMIE*. 2021;74:42–49. https://doi.org/10.17159/0379-4350/1Y21/v74a8

18. Parida S. Improving heterogeneously catalyzed transesterification reaction for biodiesel production using ultrasound energy and petro-diesel as cosolvent. *ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS*. n.d. https://doi.org/10.1080/15567036.2021.1889723

19. Sisca V, Tanjung DA, Syukri, Zilfa, Jamarun N. Catalytic activity of precipitated calcium carbonate for biodiesel production. *Rasayan Journal of Chemistry*. 2021;14(3):1587–1593. https://doi.org/10.31788/RJC.2021.1436167

20. Takeno M, Mendonca I, Barros S, Maia P, Pessoa W, Souza M, Soares E, Binda R, Calderaro F, Sa I, Silva C, Manzato L, Iglauer S, de Freitas F. A novel CaO-based catalyst obtained from silver croaker (Plagioscion squamosissimus) stone for biodiesel synthesis: Waste valorization and process optimization. *RENEWABLE ENERGY*. 2021;172:1035–1045. https://doi.org/10.1016/j.renene.2021.03.093

21. Widiarti N, Bahruji H, Holilah H, Ni'mah YL, Ediati R, Santoso E, Jalil AA, Hamid A, Prasetyoko D. Upgrading catalytic activity of NiO/CaO/MgO from natural limestone as catalysts for transesterification of coconut oil to biodiesel. *BIOMASS CONVERSION AND BIOREFINERY*. n.d. https://doi.org/10.1007/s13399-021-01373-5

22. Wong K, Jo-Han N, Chong C, Lam S, Chong W. Biodiesel process intensification through catalytic enhancement and emerging reactor designs: A critical review. *RENEWABLE & SUSTAINABLE ENERGY REVIEWS*. 2019;116. https://doi.org/10.1016/j.rser.2019.109399

23. Wong K, Ng J, Chong C, Lam S, Chong W. Pareto-hierarchical clustering framework for biodiesel transesterification. *SUSTAINABLE ENERGY TECHNOLOGIES AND ASSESSMENTS*. 2021;45. https://doi.org/10.1016/j.seta.2021.101160

24. Zhang P, Chen X, Yue C, Fan M, Jiang P, Dong Y. Lithium Doping Y2O3: A Highly Efficient Solid Base Catalyst for Biodiesel Synthesis with Excellent Water Resistance and Acid Resistance. *CATALYSIS LETTERS*. 2019;149(9):2433–2443. https://doi.org/10.1007/s10562-019-02846-z

Аутоцитати

25. Dokic-Stojanovic D, Todorovic Z, Troter D, Stamenkovic O, Veselinovic L, Zdujic M, Manojlovic D, Veljkovic V. Influence of various cosolvents on the calcium oxide-catalyzed ethanolysis of sunflower oil. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2019;84(3):253–265. https://doi.org/10.2298/JSC180827007D

26. Dokic-Stojanovic D, Todorovic Z, Troter D, Stamenkovic O, Veselinovic L, Zdujic M, Manojlovic D, Veljkovic V. Triethanolamine as an efficient cosolvent for biodiesel production by CaO-catalyzed sunflower oil ethanolysis: An optimization study. *HEMIJSKA INDUSTRIJA*. 2019;73(6):351–362. https://doi.org/10.2298/HEMIND190822033D

9. Stankovic A, Stojanovic Z, Veselinovic L, Skapin SD, Bracko I, Markovic S, Uskokovic D. ZnO micro and nanocrystals with enhanced visible light absorption. *Materials Science and Engineering B-Advanced Functional Solid-State Materials*. 2012;177(13):1038–1045. https://doi.org/10.1016/j.mseb.2012.05.013

Хетероцитати

1. Al-Naser Q, Zhou J, Wang H, Liu G, Wang L. Synthesis, growth and characterization of ZnO microtubes using a traveling-wave mode microwave system. *MATERIALS RESEARCH BULLETIN*. 2015;66:65–70. https://doi.org/10.1016/j.materresbull.2015.01.037
2. Araujo E, Nobre F, Sousa G, Cavalcante L, Santos M, Souza F, de Matos J. Synthesis, growth mechanism, optical properties and catalytic activity of ZnO microcrystals obtained via hydrothermal processing. *RSC ADVANCES*. 2017;7(39):24263–24281. https://doi.org/10.1039/c7ra03277c
3. Duo S, Li Y, Liu Z, Zhong R, Liu T. Novel hybrid self-assembly of an ultralarge ZnO macroflower and defect intensity-induced photocurrent and photocatalytic properties by facile hydrothermal synthesis using CO(NH2)(2)-N2H4 as alkali sources. *MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING*. 2016;56:196–212. https://doi.org/10.1016/j.mssp.2016.08.018
4. Duo S, Zhong R, Liu Z, Liu T, Zou Z, Li X, Ran Q. Fabrication, mechanism, formic acid-tuned degradation and photocatalytic hydrogen production of novel modified ZnO spheres by L - TA - DMF assisted hydrothermal method. *MATERIALS RESEARCH BULLETIN*. 2018;106:307–331. https://doi.org/10.1016/j.materresbull.2018.06.012
5. Duo S, Zhong R, Liu Z, Wang J, Liu T, Huang C, Wu H. One-step hydrothermal synthesis of ZnO microflowers and their composition-/hollow nanorod-dependent wettability and photocatalytic property. *JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS*. 2018;120:20–33. https://doi.org/10.1016/j.jpcs.2018.04.019
6. Jo W, Kang H. (Ratios: 5, 10, 50, 100, and 200) Polyaniline-TiO2 composites under visible- or UV-light irradiation for decomposition of organic vapors. *MATERIALS CHEMISTRY AND PHYSICS*. 2013;143(1):247–255. https://doi.org/10.1016/j.matchemphys.2013.08.060
7. Kim I, Viswanathan K, Kasi G, Sadeghi K, Thanakkasaranee S, Seo J. Preparation and characterization of positively surface charged zinc oxide nanoparticles against bacterial pathogens. *MICROBIAL PATHOGENESIS*. 2020;149. https://doi.org/10.1016/j.micpath.2020.104290
8. Ledesma A, Chemes D, Frias M, Torres M. Spectroscopic characterization and docking studies of ZnO nanoparticle modified with BSA. *APPLIED SURFACE SCIENCE*. 2017;412:177–188. https://doi.org/10.1016/j.apsusc.2017.03.202
9. Liu T, Li Y, Zhang H, Wang M, Fei X, Duo S, Chen Y, Pan J, Wang W. Tartaric acid assisted hydrothermal synthesis of different flower-like ZnO hierarchical architectures with tunable optical and oxygen vacancy-induced photocatalytic properties. *APPLIED SURFACE SCIENCE*. 2015;357:516–529. https://doi.org/10.1016/j.apsusc.2015.09.031
10. Lu J, Li Q, Song W, Liu Z, Wang C. The influence of crystal modifiers on the crystallinity, particle morphology and brightness of precipitated calcite powders hydrothermally prepared from black marble waste. *POWDER TECHNOLOGY*. 2020;373:535–542. https://doi.org/10.1016/j.powtec.2020.07.002
11. Peles A, Pavlovic V, Filipovic S, Obradovic N, Mancic L, Krstic J, Mitric M, Vlahovic B, Rasic G, Kosanovic D, Pavlovic V. Structural investigation of mechanically activated ZnO powder. *JOURNAL OF ALLOYS AND COMPOUNDS*. 2015;648:971–979. https://doi.org/10.1016/j.jallcom.2015.06.247
12. Primo J, Bittencourt C, Acosta S, Sierra-Castillo A, Colomer J, Jaerger S, Teixeira V, Anaissi F. Synthesis of Zinc Oxide Nanoparticles by Ecofriendly Routes: Adsorbent for Copper Removal From Wastewater. *FRONTIERS IN CHEMISTRY*. 2020;8. https://doi.org/10.3389/fchem.2020.571790
13. Ristic M, Marcius M, Petrovic Z, Ivanda M, Music S. The Influence of Experimental Conditions on the Formation of ZnO Fibers by Electrospinning. *CROATICA CHEMICA ACTA*. 2014;87(4):315–320. https://doi.org/10.5562/cca2409

14. Rocha L, Deus R, Foschini C, Moura F, Garcia F, Simoes A. Photoluminescence emission at room temperature in zinc oxide nano-columns. *MATERIALS RESEARCH BULLETIN*. 2014;50:12–17. https://doi.org/10.1016/j.materresbull.2013.09.049
15. Silambarasan M, Saravanan S, Soga T. Raman and photoluminescence studies of Ag and Fe-doped ZnO nanoparticles. *International Journal of ChemTech Research*. 2015;7(3):1644–1650.
16. Tadjarodi A, Imani M, Izadi M, Shokrayian J. Solvent free synthesis of ZnO nanostructures and evaluation of their capability for water treatment. *MATERIALS RESEARCH BULLETIN*. 2015;70:468–477. https://doi.org/10.1016/j.materresbull.2015.04.059
17. Wu G, Zhao X, Li M, Li Z, Li C, Lou X. Controllable Synthesis of Hierarchical Structure ZnO Photocatalysts with Different Morphologies via Sol-Gel Assisted Hydrothermal Method. *CHINESE JOURNAL OF INORGANIC CHEMISTRY*. 2015;31(1):61–68.
18. Xie H, Gu Y, Mu H. Photocatalytic Performance of 3D Ni/Graphene/ZnO Composites Fabricated by Hydrothermal Processing. *JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY*. 2018;18(7):4822–4833. https://doi.org/10.1166/jnn.2018.15341

Коцитати

19. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC161207011I
20. Stevanović M, Lukić MJ, Stanković A, Filipović N, Kuzmanović M, Janićijević Z. Biomedical inorganic nanoparticles: Preparation, properties, and perspectives. *Materials for Biomedical Engineering: Inorganic Micro- and Nanostructures*. 2019 https://doi.org/10.1016/B978-0-08-102814-8.00001-9

Аутоцитати

21. Markovic S, Stankovic A, Dostanic J, Veselinovic L, Mancic L, Skapin S, Drazic G, Jankovic-Castvan I, Uskokovic D. Simultaneous enhancement of natural sunlightand artificial UV-driven photocatalytic activity of a mechanically activated ZnO/SnO2 composite. *RSC ADVANCES*. 2017;7(68):42725–42737. https://doi.org/10.1039/c7ra06895f
22. Markovic S, Simatovic I, Ahmetovic S, Veselinovic L, Stojadinovic S, Rac V, Skapin S, Bogdanovic D, Castvan I, Uskokovic D. Surfactant-assisted microwave processing of ZnO particles: a simple way for designing the surface-to-bulk defect ratio and improving photo(electro)catalytic properties. *RSC ADVANCES*. 2019;9(30):17165–17178. https://doi.org/10.1039/c9ra02553g

10. Markovic S, Stankovic A, Dostanic J, Veselinovic L, Mancic L, Skapin SD, Drazic G, Jankovic-Castvan I, Uskokovic D. Simultaneous enhancement of natural sunlight and artificial UV-driven photocatalytic activity of a mechanically activated ZnO/SnO2 composite. *RSCc Advances*. 2017;7(68):42725–42737. https://doi.org/10.1039/c7ra06895f

Хетероцитати

1. Ali W, Ullah H, Zada A, Alamgir M, Muhammad W, Ahmad M, Nadhman A. Effect of calcination temperature on the photoactivities of ZnO/SnO2 nanocomposites for the degradation of methyl orange. *MATERIALS CHEMISTRY AND PHYSICS*. 2018;213:259–266. https://doi.org/10.1016/j.matchemphys.2018.04.015
2. Ali W, Ullah H, Zada A, Muhammad W, Ali S, Shaheen S, Alamgir M, Ansar M, Khan Z, Bilal H, Yap P. Synthesis of TiO2 modified self-assembled honeycomb ZnO/SnO2 nanocomposites for exceptional photocatalytic degradation of 2,4-dichlorophenol and bisphenol A. *SCIENCE OF THE TOTAL ENVIRONMENT*. 2020;746. https://doi.org/10.1016/j.scitotenv.2020.141291
3. Baca M, Wenelska K, Mijowska E, Kalenczuk R, Zielinska B. Physicochemical and photocatalytic characterization of mesoporous carbon/titanium dioxide spheres. *DIAMOND AND RELATED MATERIALS*. 2020;101. https://doi.org/10.1016/j.diamond.2019.107551

4. Dojcinovic M, Vasiljevic Z, Pavlovic V, Barisic D, Pajic D, Tadic N, Nikolic M. Mixed Mg-Co spinel ferrites: Structure, morphology, magnetic and photocatalytic properties. *JOURNAL OF ALLOYS AND COMPOUNDS*. 2021;855. https://doi.org/10.1016/j.jallcom.2020.157429
5. Ganeshbabu M, Kannan N, Venkatesh P, Paulraj G, Jeganathan K, MubarakAli D. Synthesis and characterization of BiVO4 nanoparticles for environmental applications. *RSC ADVANCES*. 2020;10(31):18315–18322. https://doi.org/10.1039/d0ra01065k
6. Hanh N, Thuan D, Khai N, Thuy P, Hang T, Vy N, Noi N, Tran D, Pham T, Truc N, Tri N. Synthesis of Co3O4 coated on N,S doped TiO2 for novel photocatalytic degradation of toxic organic pollutant in aqueous environment. *CERAMICS INTERNATIONAL*. 2020;46(13):21610–21616. https://doi.org/10.1016/j.ceramint.2020.05.266
7. Karmakar S, Ghosh S, Kumbhakar P. Enhanced Sunlight-Driven Photocatalytic and Antibacterial Activities of Flower-Like ZnO@MoS2 Nanocomposite. *JOURNAL OF NANOPARTICLE RESEARCH*. 2020;22(1). https://doi.org/10.1007/s11051-019-4710-3
8. Liang Y, Wang Y. Optimizing crystal characterization of WO3-ZnO composites for boosting photoactive performance via manipulating crystal formation conditions. *CRYSTENGCOMM*. 2021;23(19):3498–3509. https://doi.org/10.1039/d1ce00308a
9. Qian G, Zhu X, Yu H, Shi C, Yao D. The oil pollution and nitric oxide photocatalytic degradation evaluation of composite nanomaterials for asphalt pavement. *CONSTRUCTION AND BUILDING MATERIALS*. 2022;314. https://doi.org/10.1016/j.conbuildmat.2021.125497
10. Sabeen M, Aziz L, Nazir T, Mehmood S, Bhopal M, Ali A, Saeed F, Nasim F, Cepek C, Bhardwaj S, Ul-Hamid A, Bhatti A. Defect states in ZnO/SnO2 composite nanostructures (CNs) for possible facilitating role in carrier transport across the junction. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*. 2021;32(2):1818–1828. https://doi.org/10.1007/s10854-020-04950-y
11. Slusna M, Smrzova D, Ecorchard P, Tolasz J, Motlochova M, Jakubec I, Marikova M, Kormunda M, Stengl V. Y Photocatalytic activity of Sn-doped ZnO synthesized via peroxide route. *JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS*. 2022;160. https://doi.org/10.1016/j.jpcs.2021.110340
12. Song S, Wu K, Wu H, Guo J, Zhang L. Effect of Fe/Sn doping on the photocatalytic performance of multi-shelled ZnO microspheres: experimental and theoretical investigations. *DALTON TRANSACTIONS*. 2019;48(35):13260–13272. https://doi.org/10.1039/c9dt02582k
13. Xu M, Jia S, Chen C, Zhang Z, Yan J, Guo Y, Zhang Y, Zhao W, Yun J, Wang Y. Microwave-assistant hydrothermal synthesis of SnO2@ZnO hierarchical nanostructures enhanced photocatalytic performance under visible light irradiation. *MATERIALS RESEARCH BULLETIN*. 2018;106:74–80. https://doi.org/10.1016/j.materresbull.2018.05.033
14. Yakout S. Engineering of visible light photocatalytic activity in SnO2 nanoparticles: Cu2+-integrated Li+, Y3+ or Zr4+ dopants. *OPTICAL MATERIALS*. 2021;116. https://doi.org/10.1016/j.optmat.2021.111077
15. Zhang M, Xia X, Cao C, Xue H, Yang Y, Li W, Chen Q, Xiao L, Qian Q. A ZnO@ABS/TPU/CaSiO3 3D skeleton and its adsorption/photocatalysis properties for dye contaminant removal. *RSC ADVANCES*. 2020;10(68):41272–41282. https://doi.org/10.1039/d0ra06661c

Коцитати

16. Ignjatovic N, Markovic S, Jugovic D, Uskokovic V, Uskokovic D. From molecules to nanoparticles to functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2020;85(11):1383–1403. https://doi.org/10.2298/JSC200426035I

Аутоцитати

17. Markovic S, Simatovic I, Ahmetovic S, Veselinovic L, Stojadinovic S, Rac V, Skapin S, Bogdanovic D, Castvan I, Uskokovic D. Surfactant-assisted microwave processing of ZnO particles: a simple way for designing the surface-to-bulk defect ratio and improving photo(electro)catalytic properties. *RSC ADVANCES*. 2019;9(30):17165–17178. https://doi.org/10.1039/c9ra02553g

18. Rajic V, Simatovic I, Veselinovic L, Cavor J, Novakovic M, Popovic M, Skapin S, Mojovic M, Stojadinovic S, Rac V, Castvan I, Markovic S. Bifunctional catalytic activity of Zn1-xFexO toward the OER/ORR: seeking an optimal stoichiometry. *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*. 2020;22(38):22078–22095. https://doi.org/10.1039/d0cp03377d

11. Markovic S, Jovalekic C, Veselinovic L, Mentus S, Uskokovic D. Electrical properties of barium titanate stannate functionally graded materials. *Journal of the European Ceramic Society*. 2010;30(6):1427–1435. https://doi.org/10.1016/j.jeurceramsoc.2009.10.020

Хетероцитати

1. Arantes V, Neto A, Silveira S. Two-Step Sintering of Alumina/Zirconia Functionally Graded Materials. *PRAKTISCHE METALLOGRAPHIE-PRACTICAL METALLOGRAPHY*. 2018;55(5):303–318. https://doi.org/10.3139/147.110520
2. Das S, Gautam S, Gautam C. Electrical Study of Lead Calcium Titanate Borosilicate Glass Ceramics. In: Kumar A, Dirgantara T, Krishna P, eds. Vol. 8. 2020:361–370. https://doi.org/10.1007/978-981-15-7827-4_36
3. Gingter P, Watjen A, Kramer M, Telle R. Functionally Graded Ceramic Structures by Direct Thermal Inkjet Printing. *JOURNAL OF CERAMIC SCIENCE AND TECHNOLOGY*. 2015;6(2):119–124. https://doi.org/10.4416/JCST2014-00033
4. Luo Q, Li X, Yao Z, Zhang L, Xie J, Hao H, Cao M, Manan A, Liu H. The role of dielectric permittivity in the energy storage performances of ultrahigh-permittivity (SrxBa1-x)(Ti0.85Sn0.15)O-3 ceramics. *CERAMICS INTERNATIONAL*. 2018;44(5):5304–5310. https://doi.org/10.1016/j.ceramint.2017.12.146
5. Rhouma F, Dhahri A, Dhahri J, Belmabrouk H, Valente M. Structural and dielectric properties of Ba-0.8 La-0.133 Ti-0.90 Sn-0.1 O-3. *SOLID STATE COMMUNICATIONS*. 2012;152(20):1874–1879. https://doi.org/10.1016/j.ssc.2012.07.014
6. Salehizadeh S, Chenari H, Shabani M, Ahangar H, Zamiri R, Rebelo A, Kumar J, Graca M, Ferreira J. Structural and impedance spectroscopy characteristics of BaCO3/BaSnO3/SnO2 nanocomposite: observation of a non-monotonic relaxation behavior. *RSC ADVANCES*. 2018;8(4):2100–2108. https://doi.org/10.1039/c7ra12442b
7. Shukla A, Bajpai P. Effect of Process Parameter on Barium Titanate Stannate (BTS) Materials Sintered at Low Sintering. In: Bajpai P, Ojha K, Singh K, eds. Vol. 1372. 2011 https://doi.org/10.1063/1.3644435
8. Singh A, Dubey D, Singh G, Tripathi S. Tuning ferroelectricity by manipulating the global and local structure in a lead-free Sr-doped Ba(Ti1-xSnx)O-3 ceramics. *EPL*. 2020;130(3). https://doi.org/10.1209/0295-5075/130/36002
9. Spitsin A, Bush A, Kozlov V, Stepanov A, Kamentsev K, Tishchenko E. Effect of Composition on the Dielectric Properties of (1-x)Ba(Ti0.75Sn0.25)O-3 center dot xPbTiO(3) Solid Solutions. *INORGANIC MATERIALS*. 2020;56(3):297–303. https://doi.org/10.1134/S0020168520020168
10. Tawichai N, Sutjarittangtham K, Tunkasiri T, Pengpat K, Rujijanagul G, Wang J. Dielectric dispersion and impedance spectroscopy of B3+-doped Ba(Ti0.9Sn0.1)O-3 ceramics. *CERAMICS INTERNATIONAL*. 2013;39:S145–S148. https://doi.org/10.1016/j.ceramint.2012.10.051
11. Trzepiecinski T, Ryzinska G, Biglar M, Gromada M. Modelling of multilayer actuator layers by homogenisation technique using Digimat software. *CERAMICS INTERNATIONAL*. 2017;43(3):3259–3266. https://doi.org/10.1016/j.ceramint.2016.11.157
12. Veselinović L, Mitrić M, Mančić L, Vukomanović M, Hadžić B, Marković S, Uskoković D. The effect of Sn for Ti substitution on the average and local crystal structure of BaTi1-xSnxO3 (0 ≤ x ≤ 0.20). *Journal of Applied Crystallography*. 2014;47(3):999–1007. https://doi.org/10.1107/S1600576714007584

Коцитати

13. Lukic M, Jovalekic C, Markovic S, Uskokovic D. Enhanced high-temperature electrical response of hydroxyapatite upon grain size refinement. *MATERIALS RESEARCH BULLETIN*. 2015;61:534–538. https://doi.org/10.1016/j.materresbull.2014.10.072
14. Markovic S, Lukic M, Jovalekic C, Skapin S, Suvorov D, Uskokovic D. SINTERING EFFECTS ON MICROSTRUCTURE AND ELECTRICAL PROPERTIES OF CaCu3Ti4O12 CERAMICS. In: Bansal N, Singh J, Ko S, Castro R, Pickrell G, Manjooran N, Nair K, Singh G, eds. Vol. 240. 2013:337–348.
15. Markovic S, Lukic M, Skapin S, Stojanovic B, Uskokovic D. Designing, fabrication and characterization of nanostructured functionally graded HAp/BCP ceramics. *CERAMICS INTERNATIONAL*. 2015;41(2):2654–2667. https://doi.org/10.1016/j.ceramint.2014.10.079
16. Markovic S, Uskokovic D. BARIUM TITANATE STANNATE FUNCTIONALLY GRADED MATERIALS: CHOOSING OF THE Ti/Sn CONCENTRATION GRADIENT AND THE INFLUENCE OF THE GRADIENT ON ELECTRICAL PROPERTIES. In: Nair K, Priya S, eds. Vol. 221. 2010:3–17.
17. Marković S, Uskoković D. Sintering of Defect-Free BaTi 0.975Sn0.025O3/BaTi0.85Sn0.15O3 Functionally Graded Materials. *Advances and Applications in Electroceramics*. Vol. 226. 2011 https://doi.org/10.1002/9781118144480.ch11

Аутоцитати

18. Veselinovic L, Mitric M, Avdeev M, Markovic S, Uskokovic D. New insights into BaTi1-xSnxO3 (0 <= x <= 0.20) phase diagram from neutron diffraction data. *JOURNAL OF APPLIED CRYSTALLOGRAPHY*. 2016;49:1726–1733. https://doi.org/10.1107/S1600576716013157

12. Veselinovic L, Mitric M, Mancic L, Vukomanovic M, Hadzic B, Markovic S, Uskokovic D. The effect of Sn for Ti substitution on the average and local crystal structure of BaTi1-xSnxO3 (0 <= x <= 0.20). *Journal of Applied Crystallography*. 2014;47:999–1007. https://doi.org/10.1107/S1600576714007584

Хетероцитати

1. Ahmadu U, Olarinoye O, Agida M, Muhammad A, Usman A. Crystal structure refinement of co-doped Ba0.88Ca0.12Ti0.975Sn0.025O3 ceramic. *MATERIALS CHEMISTRY AND PHYSICS*. 2017;196:256–261. https://doi.org/10.1016/j.matchemphys.2017.04.063
2. Ansari M, Sreenivas K. Effects of disorder activated scattering and defect-induced phase on the ferroelectric properties of BaSnxTi1-xO3 (0 <= x <= 0.28) ceramics. *CERAMICS INTERNATIONAL*. 2019;45(16):20738–20749. https://doi.org/10.1016/j.ceramint.2019.07.058
3. Dubey D, Singh G, Tripathi S. Relaxor ferroelectricity driven by “A” and “B” site off-centered displacements in cubic phase with Pm(3)over-barm space group. *JOURNAL OF PHYSICS D-APPLIED PHYSICS*. 2021;54(36). https://doi.org/10.1088/1361-6463/ac0bda
4. Gou Q, Zhu J, Wu J, Li F, Jiang L, Xiao D. Microstructure and electrical properties of (1-x) K0.5Na0.5NbO3-xBi(0.5)Na(0.5)Zr(0.85)Sn(0.15)O(3) lead-free ceramics. *JOURNAL OF ALLOYS AND COMPOUNDS*. 2018;730:311–317. https://doi.org/10.1016/j.jallcom.2017.09.331
5. Kumar R, Singh I, Meena R, Asokan K, Birajdar B, Patnaik S. Effect of La-doping on dielectric properties and energy storage density of lead-free Ba(Ti0.95Sn0.05)O-3 ceramics. *MATERIALS RESEARCH BULLETIN*. 2020;123. https://doi.org/10.1016/j.materresbull.2019.110694
6. Li F, Zeng M, Yu H, Xu H, Li J. Dielectric characteristics of B-site-modified hexagonal-barium titanate. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*. 2016;27(3):2836–2840. https://doi.org/10.1007/s10854-015-4098-5
7. Mesquita W, de Jesus S, Oliveira M, Ribeiro R, Santos M, Godinho M, Longo E, Gurgel M. Barium strontium titanate-based perovskite materials from DFT perspective: assessing the structural, electronic,

vibrational, dielectric and energetic properties. *THEORETICAL CHEMISTRY ACCOUNTS*. 2021;140(3). https://doi.org/10.1007/s00214-021-02723-2

8. Singh A, Dubey D, Singh G, Tripathi S. Tuning ferroelectricity by manipulating the global and local structure in a lead-free Sr-doped Ba(Ti1-xSnx)O-3 ceramics. *EPL*. 2020;130(3). https://doi.org/10.1209/0295-5075/130/36002
9. Singh S, Singh P, Parkash O, Kumar D. Studies on diffuse phase transition in Co- and La-doped BaTi0.85Sn0.15O3. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*. 2021;32(12):16494–16504. https://doi.org/10.1007/s10854-021-06206-9
10. Wu M, Li X, Dong H, Yu S, Li L. High-performance flexible dielectric tunable BTS thin films prepared on copper foils. *CERAMICS INTERNATIONAL*. 2019;45(13):16270–16274. https://doi.org/10.1016/j.ceramint.2019.05.150
11. Zaitouni H, Hajji L, Mezzane D, Choukri E, Gagou Y, Hoummada K, Charai A, Alimoussa A, Rozic B, El Marssi M, Kutnjak Z. Structural, dielectric, ferroelectric and tuning properties of Pb-free ferroelectric Ba0.9Sr0.1Ti1-xSnxO3. *CERAMICS INTERNATIONAL*. 2020;46(17):27275–27282. https://doi.org/10.1016/j.ceramint.2020.07.212
12. Zheng T, Wu J, Xiao D, Zhu J, Wang X, Xin L, Lou X. Strong Piezoelectricity in (1-x)(K0.4Na0.6)(Nb0.9Sb0.04)O-3-xBi(0.5)K(0.5)Zr(1-y)Sn(y)O(3) Lead-Free Binary System: Identification and Role of Multiphase Coexistence. *ACS APPLIED MATERIALS & INTERFACES*. 2015;7(10):5927–5937. https://doi.org/10.1021/acsami.5b00151
13. Zhu G, Yan D, Xu H, Yu A. Structural and electric properties of BaSn0.15Ti0.85O3 films on ITO/glass substrate by RF sputtering from powder target. *MATERIALS LETTERS*. 2015;140:155–157. https://doi.org/10.1016/j.matlet.2014.11.030

Коцитати

14. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC161207011I

Аутоцитати

15. Veselinovic L, Mitric M, Avdeev M, Markovic S, Uskokovic D. New insights into BaTi1-xSnxO3 (0 <= x <= 0.20) phase diagram from neutron diffraction data. *JOURNAL OF APPLIED CRYSTALLOGRAPHY*. 2016;49:1726–1733. https://doi.org/10.1107/S1600576716013157

13. Lukic MJ, Veselinovic L, Stevanovic M, Nunic J, Drazic G, Markovic S, Uskokovic D. Hydroxyapatite nanopowders prepared in the presence of zirconium ions. *Materials Letters*. 2014;122:296–300. https://doi.org/10.1016/j.matlet.2014.02.072

Хетероцитати

1. Afifi M, Ahmed MK, Ibrahium HA, Awwad NS, Abdel-Fattah E, Alshahrani MY. Improvement of physicochemical properties of ternary nanocomposites based on hydroxyapatite/CuO/graphene oxide for biomedical usages. *Ceramics International*. 2021. https://doi.org/10.1016/j.ceramint.2021.10.186
2. Al-Ahmed Z, Al-Radadi N, Ahmed M, Shoueir K, El-Kemary M. Dye removal, antibacterial properties, and morphological behavior of hydroxyapatite doped with Pd ions. *ARABIAN JOURNAL OF CHEMISTRY*. 2020;13(12):8626–8637. https://doi.org/10.1016/j.arabjc.2020.09.049
3. Barabas R, Fort C, Turdean G, Bizo L. Influence of HAP on the Morpho-Structural Properties and Corrosion Resistance of ZrO2-Based Composites for Biomedical Applications. *CRYSTALS*. 2021;11(2). https://doi.org/10.3390/cryst11020202
4. El-Naggar M, Abu Ali O, Abu-Saied M, Ahmed M, Abdel-Fattah E, Saleh D. Tailoring combinations of hydroxyapatite/cadmium selenite/graphene oxide based on their structure, morphology, and antibacterial

activity. *JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS*. n.d. https://doi.org/10.1007/s10904-021-02115-w

5. El-Naggar M, Alharthi S, Saleh D, El-Sayed W, Abu-Saied M, Ahmed M. Thallium/vanadate co-substitutions through hydroxyapatite/polycaprolactone nanofibrous scaffolds for biomedical domains. *MATERIALS CHEMISTRY AND PHYSICS*. 2021;271. https://doi.org/10.1016/j.matchemphys.2021.124879
6. Kaygili O, Keser S. Zr/Mg, Zr/Sr and Zr/Zn co-doped hydroxyapatites: Synthesis and characterization. *CERAMICS INTERNATIONAL*. 2016;42(7):9270–9273. https://doi.org/10.1016/j.ceramint.2016.02.027
7. Mansour S, El-Dek S, Ahmed M. Physico-mechanical and morphological features of zirconia substituted hydroxyapatite nano crystals. *SCIENTIFIC REPORTS*. 2017;7:1–21. https://doi.org/10.1038/srep43202
8. Mansour S, El-Dek S, Ismail M, Ahmed M. Structure and cell viability of Pd substituted hydroxyapatite nano particles. *BIOMEDICAL PHYSICS & ENGINEERING EXPRESS*. 2018;4(4). https://doi.org/10.1088/2057-1976/aac07c
9. Sanyal V, Kesavamoorthi R, Raja C. Investigation on Mechanical Behavior and Bioactivity of Fluorohydroxyapatite Toughened by Zirconium-Cerium ions Additions. Vol. 3. 2016:1923–1932. https://doi.org/10.1016/j.matpr.2016.04.093
10. Sanyal V, Raja C. Structural and antibacterial activity of hydroxyapatite and fluorohydroxyapatite co-substituted with zirconium-cerium ions. *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. 2016;122(2). https://doi.org/10.1007/s00339-016-9621-x

Коцитати

11. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC161207011I
12. Stevanović M, Lukić MJ, Stanković A, Filipović N, Kuzmanović M, Janićijević Z. Biomedical inorganic nanoparticles: Preparation, properties, and perspectives. *Materials for Biomedical Engineering: Inorganic Micro- and Nanostructures*. 2019 https://doi.org/10.1016/B978-0-08-102814-8.00001-9

Аутоцитати

13. Janicijevic Z, Lukic M, Veselinovic L. Alternating current electric field modified synthesis of hydroxyapatite bioceramics. *MATERIALS & DESIGN*. 2016;109:511–519. https://doi.org/10.1016/j.matdes.2016.07.061
14. Lukic M, Kuzmanovic M, Sezen M, Bakan F, Egelja A, Veselinovic L. Inert atmosphere processing of hydroxyapatite in the presence of lithium iron phosphate. *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*. 2018;38(4):2120–2133. https://doi.org/10.1016/j.jeurceramsoc.2017.12.023

***h*-индекс = 13**

14. Filipovic N, Veselinovic L, Razic S, Jeremic S, Filipic M, Zegura B, Tomic S, Colic M, Stevanovic M. Poly (epsilon-caprolactone) microspheres for prolonged release of selenium nanoparticles. *Materials Science & Engineering C-Materials for Biological Applications*. 2019;96:776–789. https://doi.org/10.1016/j.msec.2018.11.073

Хетероцитати

1. Abdul-Hamead A. Fabrication and AFM characterization of selenium recycled nano particles by pulse laser evaporation and thermal evaporation. *MATERIALS RESEARCH EXPRESS*. 2019;6(12). https://doi.org/10.1088/2053-1591/ab6a50
2. Chen J, Wei Y, Yang X, Ni S, Hong F, Ni S. Construction of selenium-embedded mesoporous silica with improved antibacterial activity. *COLLOIDS AND SURFACES B-BIOINTERFACES*. 2020;190. https://doi.org/10.1016/j.colsurfb.2020.110910

3. de Camargo B, Silva D, da Silva A, Campos D, Ribeiro T, Mieli M, Zanatta M, da Silva P, Pavan F, Moreira C, Resende F, Menegario A, Chorilli M, Netto A, Bauab T. New Silver(I) Coordination Compound Loaded into Polymeric Nanoparticles as a Strategy to Improve In Vitro Anti-Helicobacter pylori Activity. *MOLECULAR PHARMACEUTICS*. 2020;17(7):2287–2298. https://doi.org/10.1021/acs.molpharmaceut.9b01264
4. Gu J, Zhou Z, Huang T, Wu W, Liu W, Zhao Y, Chen P, Zhou Z, Wang D, Zhang C, Yi M, He X, Fang J. Preparation and Properties of Poly(D,L-lacticie-co-glycolide- co-epsilon-caprolactone)/1,4-Butanendimine Modified Poly(lactide-co-glycolide) Blend Porous Microspheres. *JOURNAL OF MACROMOLECULAR SCIENCE PART B-PHYSICS*. n.d. https://doi.org/10.1080/00222348.2021.2002457
5. Hou Y, Wang W, Bartolo P. A concise review on the role of selenium for bone cancer applications. *BONE*. 2021;149. https://doi.org/10.1016/j.bone.2021.115974
6. Ignjatovic N, Markovic S, Jugovic D, Uskokovic V, Uskokovic D. From molecules to nanoparticles to functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2020;85(11):1383–1403. https://doi.org/10.2298/JSC200426035I
7. Ilic N, Kosanovic M, Gruden-Movsesijan A, Glamoclija S, Sofronic-Milosavljevic L, Colic M, Tomic S. Harnessing immunomodulatory mechanisms of Trichinella spiralis to design novel nanomedical approaches for restoring self-tolerance in autoimmunity. *IMMUNOLOGY LETTERS*. 2021;238:57–67. https://doi.org/10.1016/j.imlet.2021.04.012
8. Kargozar S, Baino F, Hamzehlou S, Hamblin M, Mozafari M. Nanotechnology for angiogenesis: opportunities and challenges. *CHEMICAL SOCIETY REVIEWS*. 2020;49(14):5008–5057. https://doi.org/10.1039/c8cs01021h
9. Lu R, Sameen D, Qin W, Wu D, Dai J, Li S, Liu Y. Development of Polylactic Acid Films with Selenium Microparticles and Its Application for Food Packaging. *COATINGS*. 2020;10(3). https://doi.org/10.3390/coatings10030280
10. Wang G, Ren H, Chen Q, Zhou M, Xie F, Yan M, Wang Q, Bi H. Eco-friendly PCL@CDs biomaterials via phytic acid, CDs-cocatalyzed polymerization for rifapentin delivery. *JOURNAL OF APPLIED POLYMER SCIENCE*. n.d. https://doi.org/10.1002/app.51984
11. Wang S, Pi L, Wen H, Yu H, Yang X. Evaluation of novel magnetic targeting microspheres loading adriamycin based on carboxymethyl chitosan. *JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY*. 2020;55. https://doi.org/10.1016/j.jddst.2019.101388
12. Zhu B, Chen Y, Lu W, Zhang Q, Gao S, Sun L, Chen S, Hu R. A biodegradable long-term contraceptive implant with steady levonorgestrel release based on PLGA microspheres embedded in PCL-coated implant. *Journal of Drug Delivery Science and Technology*. 2021. https://doi.org/10.1016/j.jddst.2021.102955

Коцитати

13. Filipovic N, Usjak D, Milenkovic M, Zheng K, Liverani L, Boccaccini A, Stevanovic M. Comparative Study of the Antimicrobial Activity of Selenium Nanoparticles With Different Surface Chemistry and Structure. *FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY*. 2021;8. https://doi.org/10.3389/fbioe.2020.624621

15. Veselinovic L, Mitric M, Avdeev M, Markovic S, Uskokovic D. New insights into BaTi1-xSnxO3 (0 <= x <= 0.20) phase diagram from neutron diffraction data. *Journal of Applied Crystallography*. 2016;49:1726–1733. https://doi.org/10.1107/S1600576716013157

Хетероцитати

1. Abebe M, Brajesh K, Mishra A, Senyshyn A, Ranjan R. Structural perspective on the anomalous weak-field piezoelectric response at the polymorphic phase boundaries of (Ba, Ca)(Ti, M)O-3 lead-free piezoelectrics (M = Zr, Sn, Hf). *PHYSICAL REVIEW B*. 2017;96(1). https://doi.org/10.1103/PhysRevB.96.014113

2. Ansari M, Sreenivas K. Effects of disorder activated scattering and defect-induced phase on the ferroelectric properties of BaSnxTi1-xO3 (0 <= x <= 0.28) ceramics. *CERAMICS INTERNATIONAL*. 2019;45(16):20738–20749. https://doi.org/10.1016/j.ceramint.2019.07.058

3. Bush A, Kozlov V, Stepanov A, Sirotinkin V. Solid solutions of the (1-x)Ba(Ti0.50Sn0.50)O-3 center dot xPbTiO(3) system: Preparation, structural and dielectric characterization. *CERAMICS INTERNATIONAL*. 2021;47(22):32243–32251. https://doi.org/10.1016/j.ceramint.2021.08.119

4. Canu G, Confalonieri G, Deluca M, Curecheriu L, Buscaglia M, Asandulesa M, Horchidan N, Dapiaggi M, Mitoseriu L, Buscaglia V. Structure-property correlations and origin of relaxor behaviour in BaCexTi(1-x)O(3). *ACTA MATERIALIA*. 2018;152:258–268. https://doi.org/10.1016/j.actamat.2018.04.038

5. Dubey D, Singh G, Tripathi S. Relaxor ferroelectricity driven by “A” and “B” site off-centered displacements in cubic phase with Pm(3)over-barm space group. *JOURNAL OF PHYSICS D-APPLIED PHYSICS*. 2021;54(36). https://doi.org/10.1088/1361-6463/ac0bda

6. Kadhane P, Baraskar B, Darvade T, James A, Kambale R. Ferroelectric and piezoelectric properties of Ca2+ and Sn4+ substituted BaTiO3 lead-free electroceramics on the emphasis of phase coexistence. *SOLID STATE COMMUNICATIONS*. 2020;306. https://doi.org/10.1016/j.ssc.2019.113797

7. Kong J, Liu J, Marlton F, Jorgensen M, Pramanick A. A Structural Study of 0.06LiNbO(3)-0.94K(0.5)Na(0.5)NbO(3) from Neutron Total Scattering Analysis. *CRYSTALS*. 2021;11(4). https://doi.org/10.3390/cryst11040395

8. Kong J, Liu J, Marlton F, Jorgensen M, Pramanick A. Local structural mechanism for phase transition and ferroelectric polarization in the mixed oxide K0.5Na0.5NbO3. *PHYSICAL REVIEW B*. 2021;103(18). https://doi.org/10.1103/PhysRevB.103.184104

9. Singh A, Dubey D, Singh G, Tripathi S. Tuning ferroelectricity by manipulating the global and local structure in a lead-free Sr-doped Ba(Ti1-xSnx)O-3 ceramics. *EPL*. 2020;130(3). https://doi.org/10.1209/0295-5075/130/36002

10. Singh S, Singh P, Parkash O, Kumar D. Studies on diffuse phase transition in Co- and La-doped BaTi0.85Sn0.15O3. *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*. 2021;32(12):16494–16504. https://doi.org/10.1007/s10854-021-06206-9

11. Zaitouni H, Hajji L, Mezzane D, Choukri E, Gagou Y, Hoummada K, Charai A, Alimoussa A, Rozic B, El Marssi M, Kutnjak Z. Structural, dielectric, ferroelectric and tuning properties of Pb-free ferroelectric Ba0.9Sr0.1Ti1-xSnxO3. *CERAMICS INTERNATIONAL*. 2020;46(17):27275–27282. https://doi.org/10.1016/j.ceramint.2020.07.212

Коцитати

12. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC161207011I

16. Lukic MJ, Veselinovic L, Stojanovic Z, Macek-Krzmanc M, Bracko I, Skapin SD, Markovic S, Uskokovic D. Peculiarities in sintering behavior of Ca-deficient hydroxyapatite nanopowders. *Materials Letters*. 2012;68:331–335. https://doi.org/10.1016/j.matlet.2011.10.085

Хетероцитати

1. Prakasam M, Locs J, Salma-Ancane K, Loca D, Largeteau A, Berzina-Cimdina L. Fabrication, Properties and Applications of Dense Hydroxyapatite: A Review. *JOURNAL OF FUNCTIONAL BIOMATERIALS*. 2015;6(4):1099–1140. https://doi.org/10.3390/jfb6041099

2. Prakasam M, Albino M, Lebraud E, Maglione M, Elissalde C, Largeteau A. Hydroxyapatite-barium titanate piezocomposites with enhanced electrical properties. *JOURNAL OF THE AMERICAN CERAMIC SOCIETY*. 2017;100(6):2621–2631. https://doi.org/10.1111/jace.14801

3. Ciocilteu M, Mocanu A, Mocanu A, Ducu C, Nicolaescu O, Manda V, Turcu-Stiolica A, Nicolicescu C, Melinte R, Balasoiu M, Croitoru O, Neamtu J. Hydroxyapatite-ciprofloxacin delivery system: Synthesis, characterisation and antibacterial activity. *ACTA PHARMACEUTICA*. 2018;68(2):129–144. https://doi.org/10.2478/acph-2018-0011
4. Uskokovic V, Desai T. Phase composition control of calcium phosphate nanoparticles for tunable drug delivery kinetics and treatment of osteomyelitis. I. Preparation and drug release. *JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A*. 2013;101(5):1416–1426. https://doi.org/10.1002/jbm.a.34426
5. Champion E. Sintering of calcium phosphate bioceramics. *ACTA BIOMATERIALIA*. 2013;9(4):5855–5875. https://doi.org/10.1016/j.actbio.2012.11.029
6. Gokcekaya O, Ueda K, Narushima T, Ergun C. Synthesis and characterization of Ag-containing calcium phosphates with various Ca/P ratios. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2015;53:111–119. https://doi.org/10.1016/j.msec.2015.04.025
7. Beaufils S, Rouillon T, Millet P, Le Bideau J, Weiss P, Chopart J, Daltin A. Synthesis of calcium-deficient hydroxyapatite nanowires and nanotubes performed by template-assisted electrodeposition. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2019;98:333–346. https://doi.org/10.1016/j.msec.2018.12.071

Коцитати

8. Lukic M, Sezen M, Veljovic D, Mrakovic A. A facile route for hydroxyapatite densification with an increased heating rate. *MATERIALS LETTERS*. 2017;207:12–15. https://doi.org/10.1016/j.matlet.2017.07.020
9. Markovic S, Lukic M, Skapin S, Stojanovic B, Uskokovic D. Designing, fabrication and characterization of nanostructured functionally graded HAp/BCP ceramics. *CERAMICS INTERNATIONAL*. 2015;41(2):2654–2667. https://doi.org/10.1016/j.ceramint.2014.10.079
10. Lukic M, Kuzmanovic M, Sezen M, Bakan F, Egelja A, Veselinovic L. Inert atmosphere processing of hydroxyapatite in the presence of lithium iron phosphate. *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*. 2018;38(4):2120–2133. https://doi.org/10.1016/j.jeurceramsoc.2017.12.023
11. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC161207011I
12. Lukic M, Skapin S, Markovic S, Uskokovic D. Processing Route to Fully Dense Nanostructured HAp Bioceramics: From Powder Synthesis to Sintering. *JOURNAL OF THE AMERICAN CERAMIC SOCIETY*. 2012;95(11). https://doi.org/10.1111/j.1551-2916.2012.05376.x

17. Markovic S, Simatovic IS, Ahmetovic S, Veselinovic L, Stojadinovic S, Rac V, Skapin SD, Bogdanovic DB, Castvan IJ, Uskokovic D. Surfactant-assisted microwave processing of ZnO particles: a simple way for designing the surface-to-bulk defect ratio and improving photo(electro)catalytic properties. *Rsc Advances*. 2019;9(30):17165–17178. https://doi.org/10.1039/c9ra02553g

Хетероцитати

1. Wojnarowicz J, Chudoba T, Lojkowski W. A Review of Microwave Synthesis of Zinc Oxide Nanomaterials: Reactants, Process Parameters and Morphologies. *NANOMATERIALS*. 2020;10(6). https://doi.org/10.3390/nano10061086
2. Wenisch C, Engel S, Graf S, Muller F. Dual Laser Beam Processing of Semiconducting Thin Films by Excited State Absorption. *MATERIALS*. 2021;14(5). https://doi.org/10.3390/ma14051256
3. Suktham K, Daisuk P, Shotipruk A. Microwave-assisted extraction of antioxidative anthraquinones from roots of Morinda citrifolia L. (Rubiaceae): Errata and review of technological development and prospects.

SEPARATION AND PURIFICATION TECHNOLOGY. 2021;256. https://doi.org/10.1016/j.seppur.2020.117844

4. Dimitrov O, Stambolova I, Vassilev S, Lazarova K, Babeva T. Morphological features and optical properties of nanosized ZrO2 films prepared by sol-gel spin coating. In: VanDeSanden M, Dimitrova M, Ghelev C, eds. Vol. 1492. 2020 https://doi.org/10.1088/1742-6596/1492/1/012024
5. Aqeel T, Greer H. Quantum-Sized Zinc Oxide Nanoparticles Synthesised within Mesoporous Silica (SBA-11) by Humid Thermal Decomposition of Zinc Acetate. *CRYSTALS*. 2020;10(6). https://doi.org/10.3390/cryst10060549
6. Soli J, Kachbouri S, Elaloui E, Charnay C. Role of surfactant type on morphological, textural, optical, and photocatalytic properties of ZnO nanoparticles obtained by modified sol-gel. *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 2021;100(2):271–285. https://doi.org/10.1007/s10971-021-05653-4
7. Aljaafari A. Size Dependent Photocatalytic Activity of ZnO Nanosheets for Degradation of Methyl Red. *FRONTIERS IN MATERIALS*. 2020;7. https://doi.org/10.3389/fmats.2020.562693
8. Wang B, Liu J, Yao S, Liu F, Li Y, He J, Lin Z, Huang F, Liu C, Wang M. Vacancy engineering in nanostructured semiconductors for enhancing photocatalysis. *JOURNAL OF MATERIALS CHEMISTRY A*. 2021;9(32):17143–17172. https://doi.org/10.1039/d1ta03895h
9. Droepenu E, Wee B, Chin S, Kok K, Maligan M. Zinc Oxide Nanoparticles Synthesis Methods and its Effect on Morphology: A Review. *BIOINTERFACE RESEARCH IN APPLIED CHEMISTRY*. 2022;12(3):4261–4292. https://doi.org/10.33263/BRIAC123.42614292

Коцитати

10. Ignjatovic N, Markovic S, Jugovic D, Uskokovic V, Uskokovic D. From molecules to nanoparticles to functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2020;85(11):1383–1403. https://doi.org/10.2298/JSC200426035I

Аутоцитати

11. Rajic V, Simatovic I, Veselinovic L, Cavor J, Novakovic M, Popovic M, Skapin S, Mojovic M, Stojadinovic S, Rac V, Castvan I, Markovic S. Bifunctional catalytic activity of Zn1-xFexO toward the OER/ORR: seeking an optimal stoichiometry. *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*. 2020;22(38):22078–22095. https://doi.org/10.1039/d0cp03377d

18. Troter DZ, Todorovic ZB, Dokic-Stojanovic DR, Veselinovic LM, Zdujic MV, Veljkovic VB. Choline chloride-based deep eutectic solvents in CaO-catalyzed ethanolysis of expired sunflower oil. *Journal of Molecular Liquids*. 2018;266:557–567. https://doi.org/10.1016/j.molliq.2018.06.106

Хетероцитати

1. Bedir O, Dogan T. Comparison of catalytic activities of Ca-based catalysts from waste in biodiesel production. *ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS*. n.d. https://doi.org/10.1080/15567036.2021.1883159
2. Crump M, Bidinger S, Pavinatto F, Gong A, Sweet R, MacKenzie J. Sensorized tissue analogues enabled by a 3D-printed conductive organogel. *NPJ FLEXIBLE ELECTRONICS*. 2021;5(1). https://doi.org/10.1038/s41528-021-00104-0
3. Li C, Wang N, Yao Y, Cui Z, Gao J, Feng D. Density, dynamic viscosity, conductivity and refractive index for mixture D-glucose and deep eutectic solvent (choline chloride plus urea) at different temperatures. *PHYSICS AND CHEMISTRY OF LIQUIDS*. n.d. https://doi.org/10.1080/00319104.2021.1916930
4. Mamtani K, Shahbaz K, Farid MM. Deep eutectic solvents – Versatile chemicals in biodiesel production. *Fuel*. 2021;295. https://doi.org/10.1016/j.fuel.2021.120604

5. Sert E, Yilmaz E, Atalay F. Chemical Recycling of Polyethlylene Terephthalate by Glycolysis Using Deep Eutectic Solvents. *JOURNAL OF POLYMERS AND THE ENVIRONMENT*. 2019;27(12):2956–2962. https://doi.org/10.1007/s10924-019-01578-w
6. ShenavaeiZare T, Khoshsima A, ZareNezhad B. Production of biodiesel through nanocatalytic transesterification of extracted oils from halophytic safflower and salicornia plants in the presence of deep eutectic solvents. *FUEL*. 2021;302. https://doi.org/10.1016/j.fuel.2021.121171
7. Sun S, Hou X. A novel caffeic acid-based deep eutectic solvent as caffeoyl donor to enhance glycerol caffeates synthesis. *JOURNAL OF MOLECULAR LIQUIDS*. 2019;277:556–562. https://doi.org/10.1016/j.molliq.2018.12.145
8. Wang X, Sun S, Hou X. Synthesis of Lipophilic Caffeoyl Alkyl Ester Using a Novel Natural Deep Eutectic Solvent. *ACS OMEGA*. 2020;5(19):11131–11137. https://doi.org/10.1021/acsomega.0c01073

Коцитати

9. Dordevic B, Troter D, Todorovic Z, Dalovic I, Stanojevic L, Mitrovic P, Veljkovic V. The effect of the triethanolamine: glycerol deep eutectic solvent on the yield, fatty acid composition, antioxidant activity, and physicochemical properties of black mustard (Brassica nigraL.) seed oil. *JOURNAL OF FOOD MEASUREMENT AND CHARACTERIZATION*. 2020;14(5):2570–2577. https://doi.org/10.1007/s11694-020-00503-3
10. Stanojevic L, Todorovic Z, Stanojevic K, Stanojevic J, Troter D, Nikolic L, Dordevic B. The influence of natural deep eutectic solvent glyceline on the yield, chemical composition and antioxidative activity of essential oil from rosemary (Rosmarinus officinalis L.) leaves. *JOURNAL OF ESSENTIAL OIL RESEARCH*. 2021;33(3):247–255. https://doi.org/10.1080/10412905.2021.1873867

Аутоцитати

11. Dokic-Stojanovic D, Todorovic Z, Troter D, Stamenkovic O, Veselinovic L, Zdujic M, Manojlovic D, Veljkovic V. Influence of various cosolvents on the calcium oxide-catalyzed ethanolysis of sunflower oil. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2019;84(3):253–265. https://doi.org/10.2298/JSC180827007D
12. Dokic-Stojanovic D, Todorovic Z, Troter D, Stamenkovic O, Veselinovic L, Zdujic M, Manojlovic D, Veljkovic V. Triethanolamine as an efficient cosolvent for biodiesel production by CaO-catalyzed sunflower oil ethanolysis: An optimization study. *HEMIJSKA INDUSTRIJA*. 2019;73(6):351–362. https://doi.org/10.2298/HEMIND190822033D

19. Markovic S, Rajic V, Stankovic A, Veselinovic L, Belosevic-Cavor J, Batalovic K, Abazovic N, Skapin SD, Uskokovic D. Effect of PEO molecular weight on sunlight induced photocatalytic activity of ZnO/PEO composites. *Solar Energy*. 2016;127:124–135. https://doi.org/10.1016/j.solener.2016.01.026

Хетероцитати

1. Antil-Martini K, Contreras D, Yanez J, Cornejo L, Santander P, Mansilla H. Solar light driven oxidation of gentisic acid on ZnO. *SOLAR ENERGY*. 2017;142:26–32. https://doi.org/10.1016/j.solener.2016.12.005
2. Choudhary S. Structural, optical, dielectric and electrical properties of (PEO-PVP)-ZnO nanocomposites. *JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS*. 2018;121:196–209. https://doi.org/10.1016/j.jpcs.2018.05.017
3. Zhang Q, Wang D, Wang Y, Li Q, Chen H, Shen D, Li D. The influence of EDTA-2Na on microstructure and corrosion resistance of PEO coating for AA1060 alloy. *INTERNATIONAL JOURNAL OF APPLIED CERAMIC TECHNOLOGY*. 2021;18(3):928–936. https://doi.org/10.1111/ijac.13696

Коцитати

4. Ignjatovic N, Markovic S, Jugovic D, Uskokovic V, Uskokovic D. From molecules to nanoparticles to functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2020;85(11):1383–1403. https://doi.org/10.2298/JSC200426035I
5. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC1612070011I
6. Stankovic A, Sezen M, Milenkovic M, Kaisarevic S, Andric N, Stevanovic M. PLGA/Nano-ZnO Composite Particles for Use in Biomedical Applications: Preparation, Characterization, and Antimicrobial Activity. *JOURNAL OF NANOMATERIALS*. 2016;2016. https://doi.org/10.1155/2016/9425289
7. Stevanović M, Lukić MJ, Stanković A, Filipović N, Kuzmanović M, Janićijević Z. Biomedical inorganic nanoparticles: Preparation, properties, and perspectives. *Materials for Biomedical Engineering: Inorganic Micro- and Nanostructures*. 2019 https://doi.org/10.1016/B978-0-08-102814-8.00001-9

Аутоцитати

8. Rajic V, Simatovic I, Veselinovic L, Cavor J, Novakovic M, Popovic M, Skapin S, Mojovic M, Stojadinovic S, Rac V, Castvan I, Markovic S. Bifunctional catalytic activity of Zn1-xFexO toward the OER/ORR: seeking an optimal stoichiometry. *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*. 2020;22(38):22078–22095. https://doi.org/10.1039/d0cp03377d
9. Markovic S, Stankovic A, Dostanic J, Veselinovic L, Mancic L, Skapin S, Drazic G, Jankovic-Castvan I, Uskokovic D. Simultaneous enhancement of natural sunlightand artificial UV-driven photocatalytic activity of a mechanically activated ZnO/SnO2 composite. *RSC ADVANCES*. 2017;7(68):42725–42737. https://doi.org/10.1039/c7ra06895f
10. Markovic S, Simatovic I, Ahmetovic S, Veselinovic L, Stojadinovic S, Rac V, Skapin S, Bogdanovic D, Castvan I, Uskokovic D. Surfactant-assisted microwave processing of ZnO particles: a simple way for designing the surface-to-bulk defect ratio and improving photo(electro)catalytic properties. *RSC ADVANCES*. 2019;9(30):17165–17178. https://doi.org/10.1039/c9ra02553g

20. Celikovic A, Kandic L, Zdujic M, Uskokovic D. Synthesis of ZnO and ZrO2 powders by mechanochemical processing. In: Uskokovic DP, Milonjic SK, Rakovic DI, eds. *Research Trends in Contemporary Materials Science*. Vol. 555. Durnten-Zurich: Trans Tech Publications Ltd; 2007:279-+.

Хетероцитати

1. Isfahani T, Javadpour J, Khavandi A, Dinnebier R, Rezaie H, Goodarzi M. Mechanochemical synthesis of zirconia nanoparticles: Formation mechanism and phase transformation. *INTERNATIONAL JOURNAL OF REFRACTORY METALS & HARD MATERIALS*. 2012;31:21–27. https://doi.org/10.1016/j.ijrmhm.2011.08.011
2. James S, Adams C, Bolm C, Braga D, Collier P, Friscic T, Grepioni F, Harris K, Hyett G, Jones W, Krebs A, Mack J, Maini L, Orpen A, Parkin I, Shearouse W, Steed J, Waddell D. Mechanochemistry: opportunities for new and cleaner synthesis. *CHEMICAL SOCIETY REVIEWS*. 2012;41(1):413–447. https://doi.org/10.1039/c1cs15171a
3. Rives V. From Solid-State Chemistry to Soft Chemistry Routes. *Perovskites and Related Mixed Oxides: Concepts and Applications*. 2015 https://doi.org/10.1002/9783527686605.ch01
4. Rao CNR, Biswas K. Essentials of Inorganic Materials Synthesis. 2015 https://doi.org/10.1002/9781118892671
5. Shi L, Chen W, Zhou X, Zhao F, Li Y. Pr-doped 3Y-TZP nanopowders for colored dental restorations: Mechanochemical processing, chromaticity and cytotoxicity. *CERAMICS INTERNATIONAL*. 2014;40(6):8569–8574. https://doi.org/10.1016/j.ceramint.2014.01.071

6. Uskoković D. Controlled designing of fine particles at molecular and nano levels. *Materials Science and Technology Conference and Exhibition, MS and T'07 - "Exploring Structure, Processing, and Applications Across Multiple Materials Systems."* Vol. 2. 2007:691–702.

Аутоцитати

7. Stankovic A, Veselinovic L, Skapin S, Markovic S, Uskokovic D. Controlled mechanochemically assisted synthesis of ZnO nanopowders in the presence of oxalic acid. *JOURNAL OF MATERIALS SCIENCE*. 2011;46(11):3716–3724. https://doi.org/10.1007/s10853-011-5273-6

21. Kandic L, Mitric M, Ignjatovic N. XRD analysis of calcium phosphate and biocomposite calcium phosphate/bioresorbable polymer. In: Uskokovic DP, Milonjic SK, Rakovic DI, eds. *Recent Developments in Advanced Materials and Processes*. Vol. 518. Durnten-Zurich: Trans Tech Publications Ltd; 2006:507–512. https://doi.org/10.4028/www.scientific.net/MSF.518.507

Хетероцитати

1. Iqbal N, Wang X, Ge J, Yu J, Kim H, Al-Deyab S, El-Newehy M, Ding B. Cobalt oxide nanoparticles embedded in flexible carbon nanofibers: attractive material for supercapacitor electrodes and CO2 adsorption. *RSC ADVANCES*. 2016;6(57):52171–52179. https://doi.org/10.1039/c6ra06077c
2. Reangchim P, Nakason K, Viriya-Empikul N, Eiad-Ua A. The effect of calcium-based salt on hydrothermal carbonization of corncob. *Key Engineering Materials*. 2017;751 KEM:477–482. https://doi.org/10.4028/www.scientific.net/KEM.751.477

Коцитати

3. Ignjatovic N, Uskokovic D. Biodegradable composites based on nanocrystalline calcium phosphate and bioresorbable polymers. *ADVANCES IN APPLIED CERAMICS*. 2008;107(3):142–147. https://doi.org/10.1179/174367608X263421
4. Mitic Z, Stolic A, Stojanovic S, Najman S, Ignjatovic N, Nikolic G, Trajanovic M. Instrumental methods and techniques for structural and physicochemical characterization of biomaterials and bone tissue: A review. *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*. 2017;79:930–949. https://doi.org/10.1016/j.msec.2017.05.127

Аутоцитати

5. Stojanovic Z, Veselinovic L, Markovic S, Ignjatovic N, Uskokovic D. Hydrothermal Synthesis of Nanosized Pure and Cobalt-Exchanged Hydroxyapatite. *MATERIALS AND MANUFACTURING PROCESSES*. 2009;24(10–11):1096–1103. https://doi.org/10.1080/10426910903032113

22. Janicijevic Z, Lukic MJ, Veselinovic L. Alternating current electric field modified synthesis of hydroxyapatite bioceramics. *Materials & Design*. 2016;109:511–519. https://doi.org/10.1016/j.matdes.2016.07.061

Хетероцитати

1. Cheng Z, Ding D, Song J, Liu F, Wang T, Hu C, Ba L, Wang J, Liu H, Shen W. Ambient Manipulation of Perovskites by Alternating Electric Field toward Tunable Photovoltaic Performance. *ADVANCED FUNCTIONAL MATERIALS*. 2020;30(42). https://doi.org/10.1002/adfm.202004652
2. Ignjatovic N, Markovic S, Jugovic D, Uskokovic D. Molecular designing of nanoparticles and functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2017;82(6):607–625. https://doi.org/10.2298/JSC161207011I

Коцитати

3. Stevanović M, Lukić MJ, Stanković A, Filipović N, Kuzmanović M, Janićijević Z. Biomedical inorganic nanoparticles: Preparation, properties, and perspectives. *Materials for Biomedical Engineering: Inorganic Micro- and Nanostructures*. 2019 https://doi.org/10.1016/B978-0-08-102814-8.00001-9

23. Kandic L, Marinkovic K, Mancic L, del Rosario G, Milosevic O. Low temperature aerosol synthesis of YAG : Ce3+ nanostructures: Comparative study of the XRPD micro structural parameters. In: Uskokovic DP, Milonjic SK, Rakovic DI, eds. *Research Trends in Contemporary Materials Science*. Vol. 555. Durnten-Zurich: Trans Tech Publications Ltd; 2007:395-+. https://doi.org/10.4028/www.scientific.net/MSF.555.395

Хетероцитати

1. Dugandzic I, Lojpur V, Marinkovic K, Mancic L, Rabanal M, Milosevic O. NANOPHOSPHORS SYNTHESIS THROUGH SOLVOTHERMAL ROUTE. In: Nedelcu D, Slatineanu L, Mazuru S, Milocevic O, eds. 2011:369–372.
2. Milosevic O, Mancic L, Rabanal M, Gomez L, Marinkovic K. Aerosol route in Processing of Nanostructured Functional Materials. *KONA POWDER AND PARTICLE JOURNAL*. 2009;(27):84–106.

Аутоцитати

3. Marinkovic K, Veselinovic L, Gomez L, Rabanal M, Mancic L, Milosevic O. Aerosol synthesis and characterization of nanostructured particles of Y3Al5O12 : Ce3+ and Y2O3 : Eu3+. *HEMIJSKA INDUSTRIJA*. 2007;61(3):101–108. https://doi.org/10.2298/HEMIND0703101M

24. Dokic-Stojanovic DR, Todorovic ZB, Troter DZ, Stamenkovic OS, Veselinovic LM, Zdujic M, Manojlovic DD, Veljkovic VB. Triethanolamine as an efficient cosolvent for biodiesel production by CaO-catalyzed sunflower oil ethanolysis: An optimization study. *Hemijska Industrija*. 2019;73(6):351–362. https://doi.org/10.2298/HEMIND190822033D

Хетероцитати

1. Liu X, Zhu F, Zhang R, Zhao L, Qi J. Recent progress on biodiesel production from municipal sewage sludge. *RENEWABLE & SUSTAINABLE ENERGY REVIEWS*. 2021;135. https://doi.org/10.1016/j.rser.2020.110260
2. Velickovic A, Avramovic J, Kostic M, Krstic J, Stamenkovic O, Veljkovic V. Modeling the biodiesel production using the wheat straw ash as a catalyst. *HEMIJSKA INDUSTRIJA*. 2021;75(5):257–276. https://doi.org/10.2298/HEMIND210526028V

25. Dokic-Stojanovic DR, Todorovic ZB, Troter DZ, Stamenkovic OS, Veselinovic LM, Zdujic MV, Manojlovic DD, Veljkovic VB. Influence of various cosolvents on the calcium oxide-catalyzed ethanolysis of sunflower oil. *Journal of the Serbian Chemical Society*. 2019;84(3):253–265. https://doi.org/10.2298/JSC180827007D

Хетероцитати

1. Silva C, Colonelli T, Trentini C, Postaue N, Zempulski D, Cardozo L, Silva E. Catalyst-free production of fatty acid ethyl esters (FAEE) from macauba pulp oil. *GRASAS Y ACEITES*. 2021;72(1). https://doi.org/10.3989/gya.0103201

Аутоцитати

2. Dokic-Stojanovic D, Todorovic Z, Troter D, Stamenkovic O, Veselinovic L, Zdujic M, Manojlovic D, Veljkovic V. Triethanolamine as an efficient cosolvent for biodiesel production by CaO-catalyzed sunflower oil ethanolysis: An optimization study. *HEMIJSKA INDUSTRIJA*. 2019;73(6):351–362. https://doi.org/10.2298/HEMIND190822033D

26. Milovic MD, Anicijevic DDV, Jugovic D, Anicijevic VJ, Veselinovic L, Mitric M, Uskokovic D. On the presence of antisite defect in monoclinic Li2FeSiO4 - A combined X-Ray

diffraction and DFT study. *Solid State Sciences*. 2019;87:81–86. https://doi.org/10.1016/j.solidstatesciences.2018.11.008

Коцитати

1. Ignjatovic N, Markovic S, Jugovic D, Uskokovic V, Uskokovic D. From molecules to nanoparticles to functional materials. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*. 2020;85(11):1383–1403. https://doi.org/10.2298/JSC200426035I
2. Milovic M, Jugovic D, Vujkovic M, Kuzmanovic M, Mrakovic A, Mitric M. Towards a green and cost-effective synthesis of polyanionic cathodes: comparative electrochemical behaviour of $LiFePO_4/C$, $Li_2FeP_2O_7/C$ and Li_2FeSiO_4/C synthesized using methylcellulose matrix. *BULLETIN OF MATERIALS SCIENCE*. 2021;44(2). https://doi.org/10.1007/s12034-021-02397-3

27. Lukic MJ, Kuzmanovic M, Sezen M, Bakan F, Egelja A, Veselinovic L. Inert atmosphere processing of hydroxyapatite in the presence of lithium iron phosphate. *Journal of the European Ceramic Society*. 2018;38(4):2120–2133. https://doi.org/10.1016/j.jeurceramsoc.2017.12.023

Хетероцитати

1. Ayoub G, Veljovic D, Zebic M, Miletic V, Palcevskis E, Petrovic R, Janackovic D. Composite nanostructured hydroxyapatite/yttrium stabilized zirconia dental inserts - The processing and application as dentin substitutes. *CERAMICS INTERNATIONAL*. 2018;44(15):18200–18208. https://doi.org/10.1016/j.ceramint.2018.07.028
2. Mocanu A, Miculescu F, Stan G, Pandele A, Pop M, Ciocoiu R, Voicu S, Ciocan L. Fiber-Templated 3D Calcium-Phosphate Scaffolds for Biomedical Applications: The Role of the Thermal Treatment Ambient on Physico-Chemical Properties. *MATERIALS*. 2021;14(9). https://doi.org/10.3390/ma14092198

28. Nikolic I, Markovic S, Veselinovic L, Radmilovic VV, Jankovic-Castvan I, Radmilovic VR. Enhanced sorption of Cu^{2+} from sulfate solutions onto modified electric arc furnace slag. *Materials Letters*. 2019;235:184–188. https://doi.org/10.1016/j.matlet.2018.10.027

Хетероцитати

1. Tadic M, Bigovic M, Djurovic D, Jakic M, Nikolic I. Simultaneous Removal of Cu^{2+}, Zn^{2+} and Cd^{2+} from Aqueous Solutions by Alkali Activated Slag. *PERIODICA POLYTECHNICA-CHEMICAL ENGINEERING*. 2021;65(3):389–399. https://doi.org/10.3311/PPch.17619
2. Omale SO, Choong TSY, Abdullah LC, Siajam SI, Yip MW. Utilization of Malaysia EAF slags for effective application in direct aqueous sequestration of carbon dioxide under ambient temperature. *Heliyon*. 2019;5(10):e02602. https://doi.org/10.1016/j.heliyon.2019.e02602

29. Rajic V, Simatovic IS, Veselinovic L, Cavor JB, Novakovic M, Popovic M, Skapin SD, Mojovic M, Stojadinovic S, Rac V, Castvan IJ, Markovic S. Bifunctional catalytic activity of $Zn_{1-x}Fe_xO$ toward the OER/ORR: seeking an optimal stoichiometry. *Physical Chemistry Chemical Physics*. 2020;22(38):22078–22095. https://doi.org/10.1039/d0cp03377d

Хетероцитати

1. Yang Y, Shi J, Bi H, Huang G, Yao D, Huang W. MOFs-derived porous carbon/NiFeP hierarchical flower-like nanoarchitectures for efficient overall water splitting. *JOURNAL OF PHYSICS D-APPLIED PHYSICS*. 2022;55(5). https://doi.org/10.1088/1361-6463/ac3037

Прилог 4

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Conference Secretary

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Beside printed «Program and the Book of Abstracts», which is disseminated to all conference participants, selected and awarded peer-reviewed papers will be published in journal "Tehnika – Novi Materijali". The best presented papers, suggested by Session Chairpersons and selected by Awards Committee, will be proclaimed at the Closing Ceremony. Part of the award is free-of-charge conference fee at YUCOMAT 2022.

Прилог 4

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YUCOMAT 2014
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Conference Organising Committee

Chairperson: Mira Vukčević
Members: Nikola Cvjetićanin, Kemal Delijić, Dragana Jugović, Smilja Marković, Branko Matović, Jovan Mirković, Nebojša Mitrović, Željka Nikitović, Nebojša Romčević, Edin Suljovrujić, Ljiljana Živković
Conference Secretary: Aleksandra Stojičić

Conference Technical Committee

Milica Ševkušić, Zoran Stojanović, Miodrag Lukić, Ana Stanković, Maja Kuzmanović, Nenad Filipović, Miloš Milović, Ljiljana Veselinović

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Прилог 5

UNIVERZITET U BEOGRADU

FAKULTET ZA FIZIČKU HEMIJU

Vladimir B. Rajić

KRISTALNA STRUKTURA, OPTIČKA I MAGNETNA SVOJSTVA NANOČESTICA $Zn_{1-x}Fe_yO_{(1-x+1.5y)}$ $(0.06 \leq y/(1-x) \leq 0.27)$

Doktorska disertacija

Beograd, 2021.

merenjima pomogao u realizaciji i koncipiranju ove doktorske teze.

Neizmernu zahvalnost za pomoć u delu vezanom za elektrohemijska merenja dugujem članu komisije dr Ivani Stojković-Simatović, vanrednom profesoru Fakulteta za fizičku hemiju. Uvek je bila tu za mene kad god je trebalo!

Rendgenostrukturna analiza uzoraka urađena je uz veliku pomoć dr Ljiljane Veselinović za Instituta tehničkih nauka Srpske akademije nauka i umetnosti i dr Miodraga Mitrovića sa Instituta za nuklearne nauke „Vinča". Karakterizaciju uzoraka visokorezolucionom skanirajućom elektronskom mikroskopijom uradio je dr Srečo Škapin sa „Jožef Štefan" instituta u Ljubljani. Ramanski spektri prahova snimljeni su uz stručnu pomoć dr Danice Bajuk Bogdanović na Fakultetu za fizičku hemiju. Fotoluminiscentna spektralna merenja vršena su na Fizičkom fakultetu uz stručnu pomoć dr Stevana Stojadinovića. UV-Vis DRS spektre snimio je dr Vladislav Rac na Poljoprivrednom fakultetu. XPS i HR TEM merenja urađena su na Institutu za nuklearne nauke „Vinča" uz stručnu pomoć dr Maje Popović i dr Mirjane Novaković. Takođe, na Institutu za nuklearne nauke „Vinča" urađena su i merenja Mesbauerove spektroskopije uz stručnu pomoć dr Valentina Ivanovskog. BET merenja urađena su na Tehnološko metalurškom fakultetu u Beogradu uz stručnu pomoć dr Ivone Janković-Častvan. Veliku pomoć prilikom sinteze pružila mi je dr Ana Stanković sa Instituta tehničkih nauka Srpske akademije nauka i umetnosti. ICP-OES analize urađene su uz stručnu pomoć dr Dijane Đurović sa Instituta za javno zdravlje u Podgorici i dr Irene Nikolić sa Metalurško tehnološkog fakulteta u Podgorici. Svima njima se najiskrenije zahvaljujem jer su svojim zalaganjem omogućili da se ova doktorska teza realizuje.

Veliko hvala kolegama iz Laboratorije za atomsku fiziku 040 koji su mi pružali podršku i davali savete tokom pisanja ove doktorske teze. I mojim prijateljima koji su uvek uz mene!

Прилог 5

UNIVERZITET U NOVOM SADU
TEHNOLOŠKI FAKULTET
INŽENJERSTVO MATERIJALA

TEHNOLOŠKI
FAKULTET
NOVI SAD

Dobijanje nanofosfora na bazi fluorapatita dopirani Pr^{3+} jonima za bio-medicinske primene

DOKTORSKA DISERTACIJA

Mentor: Doc. dr Marija Milanović   Kandidat: Mast. inž Dušan Milojkov

Novi Sad, 2020.

Dr Mariji Petković Benazzouz sa Fizičkog fakulteta u Beogradu zahvaljujem što je omogućila XRD merenja. Dr Ani Radosavljević-Mihajlović sa Instituta za tehnologiju nuklearnih i

drugih mineralnih sirovina i dr Ljiljani Veselinović sa Instituta tehničkih nauka Srpske akademije nauka i umetnosti u Beogradu zahvaljujem na stručnoj pomoći oko XRD analize.

Prof. dr Katalin Mészáros Szécsény sa Prirodno-Matematičkog fakulteta u Novom Sadu hvala za TG-DSC merenja. Prof. dr Vladimiru Pavloviću sa Poljoprivrednog fakulteta u Beogradu hvala što je omogućio SEM snimanja, i dr Ivoni Janković-Častvan sa Tehnološko-metalurškog fakulteta u Beogradu hvala za FESEM snimanja. Veliko hvala dr Ani Mraković, mr Jasmini Savić i dr Vesni Vasić sa Instituta za nuklearne nauke Vinča u Beogradu na stručnoj podršci.

Želim da se zahvalim mnogim ljudima koji su podržavali moju veru u ova naučna istraživanja na razne načine… njihovim prijateljstvom, kreativnim radovima, filmovima, slikama,

Прилог 5

Univerzitet u Beogradu
Fakultet za fizičku hemiju

mr Ana V. Stanković

Korelacija funkcionalnih i fizičko-hemijskih svojstava prahova ZnO dobijenih različitim metodama sinteze

-doktorska disertacija-

Beograd, 2014.

Ova doktorska disertacija je urađena u okviru grupe za istraživanje materijala, Instituta tehničkih nauka SANU, pod rukovodstvom *Prof. dr Dragoljuba Uskokovića* (Projekat III45004 „Molekularno dizajniranje nanočestica kontrolisanih morfoloških i fizičko-hemijskih karakteristika i funkcionalnih materijala na njihovoj osnovi"). Profesoru Uskokoviću se iskreno zahvaljujem kako na ideji za proučavanje ove problematike, tako i na ukazanom poverenju, sugestijama i savetima tokom eksperimentalnog rada i pisanja ove disertacije.

Prof. dr Dragici Minić izražavam veliku zahvalnost na posvećenom vremenu, sugestijama, korekcijama i savetima tokom pisanja i konačnog formulisanja ove disertacije. Posebno bih želela da se zahvalim na pomoći i ideji da se u okviru predstavljenih rezultata opiše kinetika procesa degradacije boje u prisustvu sintetisanih čestica cink oksida.

Prof. dr Ljiljani Damjanović i *Prof. dr Nikoli Cvjetićaninu* se zahvaljujem na pomoći, korekcijama i sugestijama tokom pisanja ove doktorske disertacije.

Iskrenu zahvalnost dugujem i *dr Smilji Marković*, višem naučnom saradniku Instituta tehničkih nauka SANU, na ogromnoj pomoći i nesebičnoj podršci koju mi je pružala od samog početka rada u ovoj grupi pa sve do danas. Svojim idejama, sugestijama i korisnim komentarima izuzetno mi je pomogla kako u eksperimantalnom radu tako i u tumačenju dobijenih rezultata.

Rendgenostrukturna analiza svih uzoraka kao i tumačenje dobijenih rezultata urađeni su uz veliku pomoć *mr Ljiljane Veselinović* istraživača saradnika Instituta tehničkih nauka SANU, kojoj bi se takođe zahvalila i na nesebičnoj i prijateljskoj podršci.

Veliku zahvalnost dugujem *dr Sreču Škapinu* naučnom savetniku Instituta Jožef Štefan iz Ljubljane na velikoj pomoći i uloženom trudu u karakterizaciji morfologije sintetisanih uzoraka i prestavljanju rezultata visokorezolucione skanirajuće elektrosnske mikroskopije. *Dr Ines Bračko* naučnom saradniku Jožef Štefan instituta iz Ljubljane na rezultatima visokorezolucione transmisione elektornske mikroskopije sa elektronskom difrakcijom.

Prof. dr Gordani Ćirić-Marijanović se zahvaljujem za urađenu ramansku spektroskopsku analizu. *Doc. dr Suzani Dimitrijević* se zahvaljujem na velikoj pomoći u radu na ispitivanju antibakterijskih svojstava prahova cink oksida. Zahvalila bih se i *dr Nadici Abazović* na pomoći u određivanju optičkih svojstava i UV-

Прилог 5

UNIVERZITET U BEOGRADU

FAKULTET ZA FIZIČKU HEMIJU

Miodrag J. Lukić

DVOSTEPENO SINTEROVANJE, FAZNE TRANSFORMACIJE, ELEKTRIČNE I MEHANIČKE OSOBINE NANOSTRUKTURNIH BIOKERAMIČKIH MATERIJALA NA BAZI HIDROKSIAPATITA

doktorska disertacija

Beograd, 2014

Ova doktorska disertacija je urađena u Institutu tehničkih nauka SANU. Zahvalnost dugujem Profesoru dr Draganu Uskokoviću, naučnom savetniku Instituta tehničkih nauka SANU i mentoru ove disertacije, na ukazanom poverenju pri dolasku u ovu istraživačku grupu i pomoći u rešavanju problema sa kojima sam se susretao tokom izrade doktorske disertacije. Iskrenu zahvalnost dugujem dr Ljiljani Damjanović, vanrednom Profesoru Fakulteta za Fizičku Hemiju Univerziteta u Beogradu, koja je zbog ove disertacije pristala da uđe u novu oblast istraživanja.

Posebnu zahvalnost dugujem dr Smilji Marković, višem naučnom saradniku Instituta tehničkih nauka SANU na stručnoj i tehničkoj pomoći, i deljenju brojnih sopstvenih kontakata sa drugim istraživačkim organizacijama i pojedincima bez kojih mnoga eksperimentalna merenja ne bi bila moguća. Zahvalnost za interpretacije mnogobrojnih analiza određivanja faznog sastava sintetisanih mateijala i za prijateljsku podršku dugujem mr Ljiljani Veselinović. Izražavam zahvalnost Profesoru Nikoli Cvjetićaninu i Profesoru Slavku Mentusu što su pristali da budu članovi komisije za ocenu i odbranu ove doktorske disertacije, kao i na korisnim savetima i korekcijama koje su dali.

Ova disertacija ne bi bila moguća u ovakvom obliku da nije bilo saradnje sa istraživačima grupe K9 Instituta Jožef Stefan, Ljubljana, Slovenija. Veliku zahvalnost dugujem rukovodiocu ove grupe dr Danilu Suvorovu koji je omogućio da se urade brojni eksperimenti za koje u Srbiji nisu postojali adekvatni uslovi. Za mnogobrojne mikrografije skanirajuće elektronske mikroskopije sintetisanih prahova i sinterovane keramike se zahvaljujem dr Sreču Davoru Škapinu, kao i dr Ines

Прилог 6

ИНСТИТУТ ТЕХНИЧКИХ НАУКА САНУ

За Министарство просвете, науке и технолошког развоја

Комисија за стицање научних звања

Потврда о руковођењу пројектним задатком

Овим потврђујем да је др Љиљана Веселиновић, научни сарадник Института техничких наука САНУ, у периоду од 01.01.2016. до 31.12.2019. била руководилац пројектног задатка "Структурна анализа наноструктурних функционалних материјала" у оквиру потпројекта „Наноструктурни функционални материјали", чији је руководилац била др Смиља Марковић (у прилогу достављамо анекс уговора) а све то у оквиру пројекта ИИИ 45004 „Молекуларно дизајнирање наночестица контролисаних морфолошких и физичко-хемијских карактеристика и функционалних материјала на њиховој основи" руководиоца проф. др Драгана Ускоковића.

У Београду,

10.12.2021.

Др Смиља Марковић
Научни саветник ИТН САНУ

Кнез Михаилова 35/IV, П.Ф. 377, 11000 Београд, Србија

Тел.: 011 21 85 437, 26 36 994; Факс: 21 85 263, мејл: its@itn.sanu.ac.rs,

http://www.itn.sanu.ac.rs Текући рачун: 840-1613660-30, 840-1613666-12, ПИБ: 100039438,

матични бр. 07011016

Прилог 6

Анекс VI Уговора о реализацији Пројекта ИИИ 45004 у периоду јул-децембар 2016. године

На основу чл. 10, 97 став 1. и 104. Закона о научноистраживачкој делатности („Службени гласник РС", бр. 110/05, 50/06-исправка, 18/10 и 112/15) - у даљем тексту: Закон), сагласно Акту о избору, вредновању и финансирању Програма ОИ/ТР/ИИИ број 451-01-967/2010-01 од 20. маја 2010. године (у даљем тексту: Акт), у пројектном циклусу истраживања од 2011. године, чије финансирање се наставља до 31. децембра 2016. године у складу са Решењем Владе Републике Србије 05 број 021-4339/2016 од 6. маја 2016. године („Службени гласник РС", број 45/16), чија Исправка је објављена у „Службеном гласнику Републике Србије" број 50 од 3. јуна 2016. године, а у вези са тачком 4. Одлуке о распореду средстава за финансирање истраживања по пројектима одобреним у оквиру програма ОИ/ТР/ИИИ у периоду од 1. јула до 31. децембра 2016. године, број: 451-03-1803/2016-14 од 30.06.2016. године, **уговорне стране:**

1) РЕПУБЛИКА СРБИЈА – Министарство просвете, науке и технолошког развоја, Београд, Немањина 22-26, ПИБ 102199748, матични број: 17329235 (у даљем тексту: Министарство), које представља министар просвете, науке и технолошког развоја,

и

2) РЕАЛИЗАТОРИ ИСТРАЖИВАЊА - учесници у реализацији научноистраживачког пројекта:

2. 1) Институт техничких наука САНУ, ПИБ 100039438, матични број:07011016, рачун КЈС број 840-0000001613660-30, кога заступа др Зоран Ђурић , директор

2. 2) Универзитет у Београду, Електротехнички факултет, ПИБ 101206130, матични број:07032498, рачун КЈС број 840-0000001438660-66, кога заступа др Зоран Јовановић , декан

2. 3) Универзитет у Нишу, Медицински факултет, ПИБ 100664516, матични број:7215282, рачун КЈС број 840-0000001681660-21, кога заступа др Добрила Станковић Ђорђевић , декан

закључују

Анекс VI
основног уговора о реализацији Пројекта ИИИ у периоду јул - децембар 2016. године у циклусу истраживања од 01.01.2011. до 31.12.2016. године

Члан 1.

Овим анексом се мења и допуњује основни Уговор о реализацији Пројекта ИИИ, тако што се уређују међусобна права и обавезе уговорних страна и Руководиоца Пројекта у реализацији и финансирању научноистраживачког пројекта: "Молекуларно дизајнирање наночестица контролисаних морфолошких и физичко-хемијских карактеристика и функционалних материјала на њиховој основи", , евиденциони број ИИИ 45004 (у даљем тексту: Пројекат ИИИ) у периоду јул-децембар 2016. године у текућем циклусу истраживања од 01.01.2011. до 31.12.2016. године.

Финансирање реализације Пројекта ИИИ у периоду јануар-јун 2016. године извршено је у складу са одлукама број: 451-03-142/2016-14 и број: 451-03-240/2016-14 од 01.02.2016. године и Анексом V. Реализатори истраживања на Пројекту ИИИ по овом анексу су правна лица из члана 104. став 1. Закона.

Члан 2.

Институт техничких наука С А Н У
Бр. 258/1
28.07 20 16. год.
Кнез Михајлова35/IV, Београд, ПФ 377
Тел: 2636-994. 2185-437, Фах: 2185-263

Укупан обим истраживања на Пројекту ИИИ до 31. децембра 2016. године износи 140 истраживач месеци (од којих је у периоду јануар-јун 2016. године пројектно финансирано 70 истраживач месеци).

Руководилац Пројекта ИИИ је др Драгољуб Ускоковић, научни саветник у пензији запослен у научноистраживачкој организацији: Институт техничких наука САНУ (у даљем тексту: Руководилац Пројекта).

Одлуку о одређивању другог лица за Руководиоца Пројекта доноси министар, уз прибављено образложено писано мишљење руководилаца свих Реализатора истраживања. Уколико реализатор, на писани захтев, не достави мишљење у року од 8 дана, сматраће се да је мишљење о предлогу за одређивање другог руководиоца позитивно.

Пројекат ИИИ чине следећи потпројекти:

- Потпројекат 1: "Молекуларно дизајнирање наноматеријала", чији је руководилац Драгољуб Ускоковић, научни саветник
- Потпројекат 2: "Наноструктурни функционални материјали", чији је руководилац Смиља Марковић, виши научни сарадник
- Потпројекат 3: "Наноструктурни биоматеријали", чији је руководилац Ненад Игњатовић, научни саветник

Члан 3.

Овим анексом се утврђује следећи износ и структура буџета Пројекта ИИИ до 31. децембра 2016. године:

1) Накнаде за рад истраживача, односно сарадника ангажованих на Пројекту ИИИ (у даљем тексту: истраживач) у бруто износу, одређене су множењем одобрених истраживач-месеци за сваког истраживача, са одговарајућом ценом истраживач-месеца која се утврђује посебном одлуком министра (Прилог 2).

У складу са одредбама члана 7.4. Основног Уговора о реализацији Пројекта ИИИ и члана 36. Акта, истраживачима који почев од датума објављивања Јавног позива (23. маја 2010. године), нису наводили пуну афилијацију приликом публиковања радова на начин утврђен Одлуком министра број 451-03-3558/2011-14 од 18.10.2011. године, накнада за научноистраживачки рад ће од јула 2016. године бити умањена, и то: са износом од 5 уместо 8 истраживач месеци за истраживаче запослене на високошколским установама, односно, са износом од 10 уместо 12 истраживач месеци за истраживаче запослене у институтима и у регистрованим иновационим организацијама из члана 104. Закона. Умањен износ, у складу са чланом 3.2. горе наведене Одлуке, истраживачи ће примати све док Министарству не доставе потписану изјаву да ће при будућем објављивању научних радова писати пуну афилијацију из члана 36. Акта;

2) Директни материјални трошкови истраживања (ДМТ) који су у функцији обављања научноистраживачког рада на Пројекту ИИИ до 31. децембра 2016. године, а који су по структури:

2) 1. ДМТ I / режија - трошкови рада лица запослених код реализатора истраживања на стручним, административним и техничким пословима, као и трошкови електричне енергије, воде, грејања, комуналних услуга и сличних трошкова реализатора програма пројектног финансирања који су у функцији обављања научноистраживачког рада на Пројекту ИИИ до 31. децембра 2016. године;

2) 2. ДМТ II - трошкови који су у функцији обављања научноистраживачког рада на Пројекту ИИИ до 31. децембра 2016. године, а односе се на: набавку потрошног материјала, ситне опреме и ситног инвентара, трошкове службених путовања чланова пројектног тима, трошкове дисеминације резултата истраживања, трошкове услуга

истраживачима и сличних трошкова реализатора програма пројектног финансирања у функцији обављања пројектних активности.

Члан 4.

Саставни делови овог анекса су следећи прилози:

Прилог 1. Опис, очекивани кључни резултати и значај истраживања Пројекта ИИИ од 01. јула до 31. децембра 2016. године, програм са динамиком и планом рада, планираним резултатима и роковима реализације истраживања;

Прилог 2. Цене истраживач-месеци утврђене за период јул-децембар 2016. године у складу са категоријом и истраживачким, научним и сарадничким звањем истраживача из члана 69. Закона, кога су Реализатори истраживања укључили на пројектно финансирање у складу са Законом и чл. 22-24. Акта. Висину утврђене цене истраживач-месеца Министарство може мењати у току реализације Пројекта ИИИ у складу са расположивим буџетским средствима;

Прилог 3. Списак истраживача ангажованих код Реализатора истраживања са ознаком категорије у коју су разврстани сагласно чл. 11-18. Акта, са утврђеном накнадом за научноистраживачки рад у бруто износу, која садржи: нето износ за исплату и износ припадајућег пореза и доприноса. Бруто накнада за научноистраживачки рад истраживача који су запослени у институтима чија се основна зарада исплаћује претежно или у целини из програма које финансира Министарство, обухвата износе за: нето исплату, порез и доприносе (на терет запосленог и на терет послодавца). Део додатних средстава за време проведено на раду, Министарство уплаћује за истраживаче у истраживачком, научном и сарадничком звању под условом да нису ангажовани у настави, а запослени су у институтима и на факултетима чији је оснивач Република. За истраживаче у наставном звању који су ангажовани у настави, Министарство не уплаћује део додатних средства за време проведено на раду.

Промене у Прилогу 3 у односу на искључивање појединих истраживача и/или укључивање нових истраживача на Пројекат ИИИ су саставни део овог анекса, односно решења о распореду средстава;

Прилог 4. Одобрени износи ДМТ I и ДМТ II и њихова расподела по Реализаторима истраживања;

Прилог 5. Уговор (оверена копија) којим су учесници у реализацији Пројекта ИИИ уредили својинска права на резултатима истраживања у складу са чл. 107а-107в Закона, за период од 01.07. до 31.12.2016. године.

Члан 5.

Руководилац/оци Реализатора истраживања по овом анексу је/су у обавези да:

1) обезбеди/де истраживања на Пројекту ИИИ у складу са Прилогом 1;

2) обезбеди/де трошење средстава примљених по овом анексу у складу са законом и за намене утврђене чланом 3. овог анекса, у складу са структуром цене Пројекта ИИИ до 31. децембра 2016. године, о чему воде посебну месечну евиденцију у складу са чланом 42. Акта по следећим ставкама:

а) бруто средства усмерена за финансирање научноистраживачког рада истраживача и део додатних средстава по основу времена проведеног на раду за истраживаче из Прилога 3. овог анекса;

б) средства утрошена за директне материјалне трошкове истраживања - ДМТ I и ДМТ II.

Евиденција из става 1. ове тачке доступна је Министарству и Руководиоцу Пројекта.

3) прати/е и реализује/у права и обавезе преузете анексом из Прилога 5, како у односу на Реализатора истраживања, тако и у односу на истраживаче радно ангажоване код тог Реализатора истраживања;

4) одмах, а најкасније у року од 15 дана од дана сазнања, писаним путем обавести/е Министарство о околностима које су од утицаја на реализацију обавеза преузетих овим анексом или на услове/обим финансирања Пројекта ИИИ по овом анексу.

Члан 6.

Руководилац Пројекта ИИИ планира и организује рад, усмерава истраживања и предузима мере за реализацију планираних резултата истраживања у складу са прилозима из члана 4. овог анекса, нарочито тако што:

I. Руководилац Пројекта ИИИ је у обавези:

1) да у случају настанка потешкоћа у реализацији Пројекта ИИИ, Министарству писмено предложи начин њиховог отклањања, као и да обезбеђује и/или сачињава одговарајућу документацију потребну за информисање и извештавање Министарства у складу са овим анексом, као и да писаним путем одговори на све писане захтеве Министарства у вези са реализацијом Пројекта ИИИ. Руководилац Пројекта је одговаран за тачност свих достављених података;

2) да писаним путем обавести Министарство о променама и/или проблемима у вези са реализацијом Пројекта ИИИ у року од 15 дана од сазнања о било којој промени која је од утицаја на финансирање буџетским средствима по основу овог анекса, а нарочито исплате накнаде за научноистраживачки рад истраживача (престанак радног ангажовања истраживача код било ког од реализатора истраживања из овог анекса по било ком основу; промена у основу/обиму радног ангажовања истраживача код било ког реализатора истраживања; околности у односу на избор/реизбор у звање или одузимање звања; одсуство истраживача по било ком основу које је дуже од три месеца у једној години; не/плаћено одсуство истраживача са рада по основу прописа о раду, дуже од петнаест радних дана у једној години, које није у функцији научноистраживачког рада на пројекту; привремена спреченост за рад истраживача по прописима о здравственом осигурању, дуже од 30 дана; одсуство истраживача са рада због упућивања на војну вежбу или због служења војног рока; одсуство истраживача са рада по прописима о заштити материнства, породиљског одсуства, одсуства са рада ради неге детета или посебне неге детета или друге особе; промена правног лица из члана 104. став 1. Закона код кога је истраживач запослен; и др.)

Одмах, а најкасније у року од 15 дана од добијања обавештења из става 1. ове тачке, Министарство обавештава Руководиоца пројекта и руководиоца односног Реализатора истраживања о начину примене прописа о пројектном финансирању на основу овог анекса;

3) да поступи у складу са чланом 94. Закона, који прописује да у време породиљског одсуства, боловања дужег од три месеца, служења војног рока, обављања јавне функције, стручног усавршавања, као и у другим случајевима када истраживач из оправданих разлога није у могућности да се бави научноистраживачким радом, рокови за избор у више звање и радни однос мирују и неће се урачунавати у рок за избор, односно реизбор.

Руководилац Пројекта доставља Министарству захтев за укључење у пројектно финансирање по Пројекту ИИИ истраживача из става 1. ове тачке, одмах по пријему његовог писаног обавештења и документације о датуму престанка оправдане немогућности за бављење научноистраживачким радом и повратку на рад код Реализатора истраживања из овог анекса;

4) да у року од 5 дана од сазнања, Министарство писаним путем обавести да се исплата бруто средстава истраживачу од стране Реализатора истраживања у коме је запослен не врши или да се неосновано умањује;

5) да прибави претходну писану сагласност Министарства за свако неопходно и образложено преусмеравање средстава у оквиру Пројекта ИИИ, које није дозвољено у односу на средства намењена исплатама накнада за научноистраживачки рад;

6) да са Реализатором истраживања као послодавцем члана пројектног тима договори начин праћења рада истраживача који научноистраживачки рад не обавља у седишту послодавца (стручно усавршавање и други случајеви у складу са Актом и Законом);

7) да, на предлог Министарства, на Пројекат ИИИ укључи стипендисту, спроводи програм његовог усавршавања и извештава Министарство о постигнутим резултатима стипендисте.

II. Руководилац Пројекта је овлашћен:

1) да, уз прибављену сагласност Реализатора истраживања као послодавца у складу са законом, Министарству достави:

- образложени захтев да се из Пројекта ИИИ искључи истраживач који не испуњава обавезе преузете у складу са овим анексом и Законом;
- образложени предлог за укључење новог компетентног истраживача током реализације Пројекта ИИИ;
- образложени предлог да се, уместо стипендисте Министарства или истраживача којима је, у складу са законом, престало својство члана истраживачког тима на Пројекту ИИИ, у пројектни тим укључи други стипендиста Министарства, односно истраживач компетентан за одређену научну област.

2) да, на основу претходне писане сагласности Министарства, настави руковођење Пројектом ИИИ и након заснивања радног односа код другог Реализатора истраживања по овом анексу, о чему се закључује писани додатак овог анекса.

Члан 7.

Руководилац Пројекта и руководилац/оци Реализатора истраживања потписивањем овог анакса преузимају и обавезу да:

7.1. све истраживаче ангажоване на Пројекту ИИИ, благовремено и потпуно обавештавају о садржини и евентуалним променама овог анекса и прилога који чине његов саставни део, о обавезама и одговорностима у току његове реализације, као и последицама непоступања у складу са истима;

7.2. узимајући у обзир комерцијалну примењивост, проналаске до којих се дође у току реализације Пројекта ИИИ, одмах по њиховом настанку заштите патентом, односно малим патентом у Републици Србији, као и да испитају оправданост њихове заштите у иностранству и да благовремено предузму одговарајуће мере за такву заштиту. О поднетим домаћим и међународним пријавама патената, дужни су да обавесте Министарство, на начин и у року сагласно уговору из Прилога 5 овог анекса;

7.3. приликом јавне презентације/објављивања појединих, односно укупних резултата истраживања остварених на Пројекту ИИИ наведу пун назив и/или евиденциони број пројекта и назначе да су средства за његову реализацију обезбеђена од стране Министарства;

7.4. приликом презентације/објављивања научних радова пишу пуну афилијацију, која подразумева и податке о научноистраживачкој или иновационој организацији из члана 104. став 1. Закона, као и навођење универзитетске припадности - својства чланице универзитета Реализатора истраживања код кога су истраживачи из пројектног тима ангажовани. Радови у којима нису испуњени претходно наведени услови неће бити узети у обзир приликом оцењивања резултата истраживача и Пројекта ИИИ.

Члан 8.

Обавеза Руководиоца Пројекта је да, у сарадњи са руководиоцем/има Реализатора истраживања, сачини, потпише и до 31. јануара 2017. године достави Министарству, у писаној и електронској форми, обједињени извештај о реализацији Пројекта ИИИ у периоду од 01. јануара до 31. децембра 2016. године (укључује и извештај о законитом и наменском располагању буџетским средствима примљеним у периоду јануар-јун 2016. године према одредбама Анекса V), кога чине:

8.1. Текстуални део, који садржи информације о обиму и квалитету реализације планираних активности Пројекта ИИИ, информације о примени резултата истраживања остварених у оквиру Пројекта ИИИ, као и подаци који омогућавају идентификацију, евалуацију и заштиту интелектуалне својине у складу са Прилогом 5;

8.2. Финансијски део, који садржи:

1) Месечне евиденције из члана 4. тачка 2) овог анекса;

2) Документацију којом се доказује законито и наменско трошење буџетских средстава примљених са раздела Министарства по овом анексу, а нарочито:

1. потписани документ истраживача да су примили накнаде за научноистраживачки рад исплаћене односном реализатору истраживања за те намене на основу овог анекса;
2. копије уговора и финансијска документација које се односи на набавку услуга лица која нису истраживачи из Прилога 2. овог анекса и изјаву о прихватању потписаног извештаја пружаоца услуга о обављеним активностима;
3. фактуре за набавку опреме, уз које се поред овере од стране Реализатора истраживања и аналитичке картице/извода, доставља и копија уговора о куповини опреме, пријемница, картица опреме са инвентарским бројем и контакт подацима лица које непосредно дужи опрему;
4. документација о аконтацији и коначном обрачуну утрошка средстава за путовање у иностранство и у земљи истраживача ангажованих на Пројекту ИИИ, као и за путовање и боравак у Републици Србији истраживача из иностранства ангажованог на пројекту;
5. копија плана јавних набавки Реализатора истраживања за 2016. годину са документацијом о спроведеним јавним набавкама (копије уговора о набавци добара/услуга; тендерска и друга документација о примењеним прописима о јавним набавкама у поступку конкретне набавке добара/услуга у периоду од 01. јануара до 31. децембра 2016. године), односно потписана и оверена изјава руководиоца Реализатора истраживања да не постоји обавеза примене прописа о јавним набавкама, уз навођења законског основа који ту примену искључује;

3) Писану изјаву у односу на трошкове приказане/документоване у извештају као финансиране буџетским средствима Пројекта ИИИ у периоду од 01. јануара до 31. децембра 2016. године по овом анексу (нпр. накнаде за научноистраживачки рад или поједине истраживачке активности; трошкови одласка на научне скупове; публиковање научних радова и/или монографија, куповина/закуп научноистраживачке или друге опреме; материјални трошкови истраживања и др.), која садржи:

1. Навод да за исте намене ни у једном делу нису обезбеђена друга средства из буџета Републике Србије или других извора, односно
2. Наводе о висини, извору, структури и начину учешћа других средстава у суфинансирању дела пројектних активности у периоду од 01. јануара до 31. децембра 2016. године (нпр. из буџетских из буџетских са других раздела; по другим програмима из Закона или Закона о иновационој делатности; из сопствених средстава Реализатора истраживања; из средстава по основу учешћа у међународним пројектима, и сл.)

Изјаву из става 1. ове тачке потписују руководиоци свих Реализатора истраживања и Руководилац Пројекта.

Обавеза Руководиоца Пројекта је да, у сарадњи са руководиоцем/има Реализатора истраживања, у року и на начин одређен посебним писаним налогом Министарства, сачини, потпише и Министарству достави обједињени финансијски извештај за циклус истраживања почев од 01.01.2011. до 31.12.2016. године

Члан 9.

Министарство се обавезује да:

9.1. средства намењена за остваривање Пројекта ИИИ у периоду од 01. јула до 31. децембра 2016. године уплати Реализаторима истраживања према одредбама овог анекса, у складу са ликвидним могућностима буџета Републике Србије - раздео Министарства;

9.2. на одговарајући начин, а и на основу извештаја из члана 8. овог анекса прати остваривање и врши оцену резултата Пројекта ИИИ;

9.3. одлучи о прекиду или обустави финансирања Пројекта ИИИ по основу овог анекса, делимично или у целини, на основу резултата контроле наменског трошења буџетских средстава, због незадовољавајућих резултата истраживања или са неког другог оправданог и образложеног основа.

У случају престанка рада, неиспуњености услова из члана 104. став 1. Закона или статусних промена Реализатора истраживања, Министарство одлучује о начину и условима пројектног финансирања по овом анексу.

Члан 10.

У случају недостављања или достављања нетачних података и/или ненаменског коришћења средстава које Реализатор истраживања не отклони у року од 15 дана од дана пријема писаног упозорења Министарства, Министарство покреће поступак једностраног раскида овог анекса у односу на све или поједине Реализаторе истраживања.

Уколико дође до драстичног и неотклоњивог поступања супротно обавезама утврђеним овим анексом, са последицама од значаја и за наменско трошење буџетских средстава, Министарство ће затражити и повраћај ненаменски утрошених средстава, са припадајућом затезном каматом.

Члан 11.

Измене и допуне овог анекса врше се писаним путем.

Овај анекс је сачињен у 7 (седам) истоветних примерака, од којих су 3 (три) за Министарство, а по 1 (један) за Реализаторе истраживања и за Руководиоца Пројекта.

У Београду, 01.07.2016. године
Евиденциони број: 451-03-1803/2016-14/ 45004

1. **За МИНИСТАРСТВО ПРОСВЕТЕ, НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА**

- МИНИСТАР

Др Срђан Вербић

____

2. РЕАЛИЗАТОРИ ИСТРАЖИВАЊА:

Реализатор истраживања		**Потпис директора / декана**
2. 1) Институт техничких наука САНУ	(М.П.)	________________
2. 2) Универзитет у Београду, Електротехнички факултет	(М.П.)	________________
2. 3) Универзитет у Нишу, Медицински факултет	(М.П.)	________________

3. Руководилац Пројекта
др Драгољуб Ускоковић, научни саветник у пензији ________________

Прилог 7

Subject	**Thank you for reviewing for Environmental Nanotechnology, Monitoring & Management**
From	Environmental Nanotechnology, Monitoring & Management <em@editorialmanager.com>
Sender	<em.enmm.0.704720.7008b09e@editorialmanager.com>
To	Ljiljana M. Veselinovic <ljiljana.veselinovic@itn.sanu.ac.rs>
Reply-To	Environmental Nanotechnology, Monitoring & Management <enmm@elsevier.com>
Date	2020-12-28 12:49

Manuscript Number: ENMM-D-20-00174R2

The degradation profile of high molecular weight textile reactive dyes: A daylight induced photocatalytic activity of ZnO/carbon quantum dot photocatalyst

Periyayya Uthirakumar; S. Kalaiarasan; Doyeong Shim; In-Hwan Lee

Dear Veselinovic,

Thank you for reviewing the above referenced manuscript. I greatly appreciate your contribution and time, which not only assisted me in reaching my decision, but also enables the author(s) to disseminate their work at the highest possible quality. Without the dedication of reviewers like you, it would be impossible to manage an efficient peer review process and maintain the high standards necessary for a successful journal.

You will shortly receive a notification from Elsevier's reviewer recognition platform, which provides you with a link to your "My Elsevier Reviews" private profile page, certificates, editor recognition as well as discounts for Elsevier services.

Subject	**4065964: Thank you for submitting your review report**
From	Mathematical Problems in Engineering <marivic.alcaraz@hindawi.com>
To	<ljiljana.veselinovic@itn.sanu.ac.rs>
Date	2020-03-12 14:07

Dear Dr. Veselinovic,

Thank you for submitting your review report on Research Article 4065964 titled "Predictive modelling and Surface analysis for Optimization of Production of Biofuel as a Renewable Energy Resource: Proposition of Artificial Neural Networks Search " by Sri Krishna Murthy Padavala, Ankit Goyal, Natarajan Rajasekar, Kapil Pareek, Thoi Trung Nguyen and Akhil Garg, and for taking the time and effort to review this manuscript for Mathematical Problems in Engineering.

Best regards,

--
****
Marivic Alcaraz
Editorial Office
Hindawi
http://www.hindawi.com
****

Прилог 7

Subject	**Thank you for reviewing manuscript Use of glycerol, waste glycerol from biodiesel production and other protic solvents in bioactive alpha,beta-unsaturated ketones synthesis**
From	Sustainable Chemistry and Pharmacy <EviseSupport@elsevier.com>
To	<ljiljana.veselinovic@itn.sanu.ac.rs>
Reply-To	<scp@elsevier.com>
Date	2019-09-27 12:40

This message was sent automatically.

Ref: SCP_2019_151
Title: Use of glycerol, waste glycerol from biodiesel production and other protic solvents in bioactive alpha,beta-unsaturated ketones synthesis
Journal: Sustainable Chemistry and Pharmacy

Dear Dr. veselinović,

Thank you for your review for the above-referenced manuscript. I greatly appreciate the commitment of your time and expertise. Without the dedication of reviewers like you, it would be impossible to manage an efficient peer review process and maintain the high standards necessary for a successful journal.

When a final decision has been reached regarding this manuscript you will be able to view this decision, as well as reviews submitted by any other reviewers, at: http://www.evise.com/evise/faces/pages/navigation/NavController.jspx?JRNL_ACR=SCP. You can also access your review comments here, at any time.

Subject	**Thank You**
From	Journal of Inorganic and Organometallic Polymers and Materials (JOIP) <em@editorialmanager.com>
Sender	<em.joip.0.5bb67a.755b29ba@editorialmanager.com>
To	Ljiljana Veselinovic <ljiljana.veselinovic@itn.sanu.ac.rs>
Reply-To	Journal of Inorganic and Organometallic Polymers and Materials (JOIP) <sheeba.martin@springer.com>
Date	2018-06-06 14:19

Dear Dr. Veselinovic,

Thank you for your review of the manuscript JOIP-D-18-00430 for Journal of Inorganic and Organometallic Polymers and Materials. We greatly appreciate your assistance.

With kind regards,
The Editorial Office
Journal of Inorganic and Organometallic Polymers and Materials

Прилог 8

Прилог 8

Materials Research Society of Serbia

awards

Ljiljana Veselinović

For the best MSc thesis done between YUCOMAT 2009 and YUCOMAT 2010

MSc thesis named "X-RAY ANALYSIS OF CALCIUM PHOSPHATE NANOSTRUCTURAL POWDERS OBTAINED BY NEW SYNTHESIS PROCEDURE" was declared the best MSc thesis done between two YUCOMAT Conferences, considering scientific contribution, quality of generated publications from the thesis and potential application of obtained results.

The President of MRS- Serbia

Prof. Dragan Uskoković