

LISTĂ COMPLETĂ DE LUCRĂRI

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LUCRĂRI REPRESENTATIVE (selecție maximum 10):

1. **Nicoara, A.I.**; Ene, V.L.; Voicu, B.B.; Bucur, M.A.; Neacsu, I.A.; Vasile, B.S.; Iordache, F., *Biocompatible Ag/Fe-Enhanced TiO₂ Nanoparticles as an Effective Compound in Sunscreens*. *Nanomaterials*, **2020**, 10, 570. DOI:10.3390/nano10030570, **ISSN:2079-4991**, **IF=4.034 (Q1)**, **WOS:000526090400170**
2. **Nicoara, A.I.**, Badanoiu, A., Balanoiu, M., Mathias, A., Voicu, G., *Alkali activated mortars with intumescent properties*, *Revista de Chimie*, **2019**, 70(2), pp. 431-437, **ISSN:0034-7752**, **FI=1.605 (Q3)**, **WOS:000461982200014**
3. **Nicoara, A.I.**, Badanoiu, A, Voicu, G., *Influence of alkali activator on the main properties of intumescent inorganic polymers based on waste glass and borax*, *Revista Română de Materiale / Romanian Journal of Materials* **2019**, 49 (1), p23-32, **ISSN:1583-3186**, **FI=0.628 (Q4)**, **WOS:000461413500003**
4. **Nicoară, A.-I.**, Geanaliu-Nicolae, R.-E., Andronescu, E., Trușcă, R., *A novel method of synthesis for nanoporous silica materials*, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2019**, 49(4), pp. 461-467, **ISSN:1583-3186**, **FI=0.628 (Q4)**, **WOS:000502552300002**
5. **Nicoara, A.I.**, Cirstea, N., Boscornea, C., Badanoiu, A., *Coatings with intumescent filler based on alkali activated glass*, *UPB Scientific Bulletin, Series B: Chemistry and Materials Science*, **2019**, 81(3), pp. 19-28, **ISSN: 1454-2331**, **WOS:000487215400003**
6. **Nicoara, A.I.**, Neacsu, I.A., Ene, V.L., Vasile, B.S., Ficai, A., Andronescu, E., *Hydroxyapatite/carbon based biocomposite scaffolds as prospective materials for bone tissue engineering*, *UPB Scientific Bulletin, Series B: Chemistry and Materials Science*, **2019**, 81(4), pp. 107-120, **ISSN: 1454-2331**, **WOS:000501994100011**
7. Voicu, G., Miu, D., Ghitulica, C.-D., Jinga, S.-I., **Nicoara, A.-I.**, Busuioc, C., Holban, A.-M., *Co doped ZnO thin films deposited by spin coating as antibacterial coating for metallic implants*, *Ceramics International*, **2020**, 46(3), pp. 3904-3911, DOI:10.1016/j.ceramint.2019.10.118, **ISSN:0272-8842**, **FI=3.450 (Q1)**, **WOS:000508752000161**

8. Vasile, B.S., Birca, A.C., Surdu, V.A., Neacsu, I.A., **Nicoară, A.I.**, *Ceramic composite materials obtained by electron-beam physical vapor deposition used as thermal barriers in the aerospace industry*, *Nanomaterials*, **2020**, 10(2), 370, DOI:10.3390/nano10020370, **ISSN:2079-4991, FI=4.034 (Q1), WOS:000522456300189**
9. Diamandescu, L., Cernea, M, Trusca, R., Enculescu, M., Tanase, L., Baibarac, M., Feder, M., **Nicoara, A.-I.**, Popescu, T., *Effects of a surfactant on the morphology and photocatalytic properties of polycrystalline Fe-doped ZnO powders*, *Journal of Physics and Chemistry of Solids*, 121, **2018**, pp 319-328, DOI:10.1016/j.jpics.2018.05.041, **ISSN: 0022-3697 FI=2.752 (Q2), WOS:000438321100042**
10. Draghici, A.-D., Busuioc, C., Mocanu, A., **Nicoară, A-I**, Iordache, F., Jinga, S.-I., *Composite scaffolds based on calcium phosphates and barium titanate obtained through bacterial cellulose templated synthesis*, *Materials Science and Engineering C*, **2020**, 110, 110704, DOI:10.1016/j.msec.2020.110704, **ISSN:0928-4931, FI=4.959 (Q1), WOS:000527395900079**

TEZA DE DOCTORAT

T – Nicoara, A.I., *Materiale activate alcalin cu proprietăți intumescente/ Alkali activated binder materials with intumescent properties*, Universitatea Politehnica din București, București, **2019**, coordonator științific Prof.dr.ing Alina Ioana Bădănoiu, **ordin 5345/25.11.2019**

BREVET DE INVENȚIE

B – Adelina-Carmen Ianculescu, Cătălina-Andreea Stanciu, Bogdan Ștefan Vasile, Roxana Trușcă, Adrian Ionuț Nicoară, Mihai Alexandru Eftimie, Vasile-Adrian Surdu, "Procedeu de preparare prin metoda șablonului negativ combinată cu chimia sol-gel a unor nanostructuri unidimensionale de BaTiO₃ dopat cu ceriu cu caracteristici feroelectrice și piezoelectrice", **Cerere brevet OSIM nr. A/00898 din 15 noiembrie 2018.**

ALTE MATERIALE PUBLICATE

D1. Neacșu, I.A., **Nicoară, A.I.**, Vasile, O.R., Vasile, B.S., “*Inorganic micro- and nanostructured implants for tissue engineering*”, *Nanobiomaterials in Hard Tissue Engineering: Applications of Nanobiomaterials*, February 25, **2016**, Pages 271-295; DOI: 10.1016/B978-0-323-42862-0.00009-2, **ISBN:978-0-323-42885-9; 978-0-323-42862-0**, **WOS:000473299500011**

ARTICOLE PUBLICATE ÎN EXTENSO

- Ris1.** David M. E., Grigorescu R. M., Iancu L., Andrei E.R., Somoghi R., Frone A. N, Atkinson I., Predoana L., **Nicoara A.I**, Ion R.M. *Synthesis and characterization of multi-walled carbon nanotubes decorated with hydroxyapatite*, *Fullerenes, Nanotubes And Carbon Nanostructures*, 2020, DOI: 10.1080/1536383X.2020.1854743
- Ris2.** Dima, C.; Bădănoiu, A.; **Nicoara, A.I.** *Properties Of Cement- Based Composites With Chopped Electrical Cables And Polyurethane Wastes*, *U.P.B. Sci. Bull., Series B*, Vol. 82, Iss. 4, 2020, **ISSN 1454-2331**
- Ris3.** Dima, C.; Bădănoiu, A.; Cristea, S.; **Nicoara, A.I.**; *Lightweight Gypsum Materials with Potential Use for Thermal Insulations*. *Materials* 2020, 13, 5454.
- Ris4.** Vîjan C.A.; Bădănoiu, A.; **Nicoară, A.I.**; Barcan, I. *Effect of Lead and Nickel on the Hardening Processes and Proprieties of Phosphate Cements*. *Rom Journals of Mater* **2020**, 50(4), 510-520, **ISSN:1583-3186, FI=0.628 (Q4)**
- Ris5.** **Nicoara, A.I.**; Stoica, A.E.; Ene, D.-I.; Vasile, B.S.; Holban, A.M.; Neacsu, I.A. *In Situ and Ex Situ Designed Hydroxyapatite: Bacterial Cellulose Materials with Biomedical Applications*. *Materials* 2020, 13, 4793.
- Ris6.** Draghici, D-A.; Mihai, A.-A.; Aioanei, M.-O.; Negru, N.-E.; **Nicoara, A.I.**, Jinga, S.-I.; Miu, D.; Bacalum, M.; Busuioc, C.; *Strontium-Substituted Bioactive Glass-Ceramic Films for Tissue Engineering*, *Boletín de la Sociedad Española de Cerámica y Vidrio*, **2020**, **ISSN 0366-3175**, <https://doi.org/10.1016/j.bsecv.2020.09.006>.
- Ris7.** **Nicoara, A.I.**; Ene, V.L.; Voicu, B.B.; Bucur, M.A.; Neacsu, I.A.; Vasile, B.S.; Iordache, F., *Biocompatible Ag/Fe-Enhanced TiO2 Nanoparticles as an Effective Compound in Sunscreens*. *Nanomaterials*, **2020**, 10, 570. DOI:10.3390/nano10030570, **ISSN:2079-4991, IF=4.034 (Q1), WOS:000526090400170**
- Ris8.** **Nicoara, A.I.**; Stoica, A.E.; Vrabc, M.; Šmuc Rogan, N.; Sturm, S.; Ow-Yang, C.; Gulgun, M.A.; Bundur, Z.B.; Ciuca, I.; Vasile, B.S. *End-of-Life Materials Used as*

- Supplementary Cementitious Materials in the Concrete Industry*. *Materials* **2020**, 13, 1954, DOI:10.3390/ma13081954, **ISSN 1996-1944, FI=2.972 (Q2)**
- Ris9.** Neacsu, I.A.; Serban, A.P.; **Nicoara, A.I.**; Trusca, R.; Ene, V.L.; Iordache, F. *Biomimetic Composite Scaffold Based on Naturally Derived Biomaterials*. *Polymers*, **2020**, 12, 1161. DOI:10.3390/polym12051161, **ISSN 2073-4360, FI=3.164 (Q1)**
- Ris10.** **Nicoară, A-I**, Bădănoiu, A Voicu, G.,Dinu,C., Ionescu, A., *Intumescent coatings based on alkali activated borosilicate inorganic polymers*, *J. Coat. Technol. Res.*, **2020**, 17(3), pp. 681-692, DOI:10.1007/s11998-019-00274-7, **ISSN: 1547-0091, FI=1.584 (Q3)**
- Ris11.** Draghici, A.-D., Busuioc, C., Mocanu, A., **Nicoară, A-I**, Iordache, F., Jinga, S.-I., *Composite scaffolds based on calcium phosphates and barium titanate obtained through bacterial cellulose templated synthesis*, *Materials Science and Engineering C*, **2020**, 110, 110704, DOI:10.1016/j.msec.2020.110704, **ISSN: 0928-4931, FI=4.959 (Q1), WOS:000527395900079**
- Ris12.** Busuioc, C., Olaret, E., Stancu, I.-C., **Nicoara, A.-I.**, Jinga, S.-I., *Electrospun fibre webs templated synthesis of mineral scaffolds based on calcium phosphates and barium titanate*, *Nanomaterials*, **2020**, 10(4), 772, DOI: 10.3390/nano10040772, **ISSN:2079-4991, IF=4.034 (Q1)**
- Ris13.** Voicu, G., Miu, D., Ghitulica, C.-D., Jinga, S.-I., **Nicoara, A.-I.**, Busuioc, C., Holban, A.-M., *Co doped ZnO thin films deposited by spin coating as antibacterial coating for metallic implants*, *Ceramics International*, **2020**, 46(3), pp. 3904-3911, DOI: 10.1016/j.ceramint.2019.10.118, **ISSN:0272-8842, FI=3.450 (Q1), WOS:000508752000161**
- Ris14.** Vasile, B.S., Birca, A.C., Surdu, V.A., Neacsu, I.A., **Nicoară, A.I.**, *Ceramic composite materials obtained by electron-beam physical vapor deposition used as thermal barriers in the aerospace industry*, *Nanomaterials*, **2020**, 10(2), 370, DOI:10.3390/nano10020370, **ISSN:2079-4991, FI=4.034 (Q1), WOS:000522456300189**
- Ris15.** Barbulescu, L.E., Dumitriu, C., Dragut, D.V., **Nicoară, A.I.**, Badanoiu, A., Pirvu, C., *Residual titanium flakes as a novel material for retention and recovery of rare earth and relatively rare earth elements*, *Environmental Science and Pollution Research*, 2020, 27(4), pp.4450-4459, DOI:10.1007/s11356-019-06839-8, **ISSN: 0944-1344, FI=2.914 (Q2), WOS:000519703100078**

- Ris16.** Oproiu, C.-L., Nicoara, A., Voicu, G., Badanoiu, A.-I., *The effect of ash resulted in wood-based pannels manufacturing process on the properties of portland cement*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, **2020**, 82(1), pp. 15-24 **ISSN: 1454-2331**
- Ris17.** Jinga, S.-I., Draghici, A.-D., Mocanu, A., Nicoară, A.I., Iordache, F., Busuioc, C. *Bacterial cellulose–assisted synthesis of glass-ceramic scaffolds with TiO₂ crystalline domains*, International Journal of Applied Ceramic Technology, **2020**, 00:1-8, DOI: 10.1111/IJAC.13506, **FI=1.074 (Q2)**
- Ris18.** Todasca, C., Gudovan, D., Tociu, M., Trusca, R., Nicoara, A.I., Manolescu, B.N., Manolache, F., *Wine industry waste valorisation as repellent support*, Revue Roumaine de Chimie, **2020**, 65 (1), pp. 69-75., DOI: 10.33224/rch.2020.65.1.07, **FI=0,381 (Q4), WOS:000548815700007**
- Ris19.** Andronescu, E., Predoi, D., Neacsu, I.A., Paduraru V.P., Musuc, A.M., Trusca, R., Oprea O., Nicoara, A.I., (.), Iconaru, S.L., Vasile, B.S., *Photoluminescent hydroxylapatite: Eu³⁺ doping effect on biological behavior*, Nanomaterials, **2019**, 9(9), 1187, DOI:10.3390/nano9091187, **ISSN:2079-4991, FI= 4.034 (Q1), WOS:000489101900004**
- Ris20.** Croitoru, A., Oprea, O., Nicoara, A., Trusca, R., Radu, M., Neacsu, I., Ficai, D., Ficai, A., Andronescu, E., *Multifunctional platforms based on graphene oxide and natural products*, Medicina, **2019**, 55(6), p230, DOI:10.3390/medicina55060230, **ISSN: 1010-660X, FI=1.467 (Q3), WOS:000475303800015**
- Ris21.** Stanescu, G., Badanoiu, A., Nicoara, A., Voicu, G., *Brick and glass waste valorisation in the manufacture of aerated autoclaved concrete*, Revista de Chimie, **2019**, 70(3), pp. 828-834, **ISSN: 0034-7752 FI=1.605 (Q3), WOS:000464911600017**
- Ris22.** Ionita, D., Nicoara, A., Stoian, A.B., *The evolution of morphology and properties of films obtained by anodizing zirconium*, Revista de Chimie, **2019**, 70(6), pp. 1911-1913, **ISSN: 0034-7752, FI=1.605, (Q3), WOS:000475860100005**
- Ris23.** Neacsu, IA, Melente, AE, Holban, AM, Ficai, A, Ditu, LM, Kamerzan, CM, Tihauan, BM, Nicoara, AI, Bezirtzoglou, E, Chifiriuc, MC, Pircalabioru, GG, *Novel hydrogels based on collagen and ZnO nanoparticles with antibacterial activity for improved wound dressings*, Romanian Biotechnological Letters, **2019**, 24(2), pp.317-323,

DOI:10.25083/rbl/24.2/317.323, ISSN: 1224-5984 FI=0.590 (Q4),
WOS:000466974000015

- Ris24.** Nicoara, A.I., Badanoiu, A., Balanoiu, M., Mathias, A., Voicu, G., *Alkali activated mortars with intumescent properties*, Revista de Chimie, **2019**, 70(2), pp. 431-437, ISSN: 0034-7752, FI= 1.605 (Q3), WOS:000461982200014
- Ris25.** Nicoara, A.I., Badanoiu, A., Voicu, G., *Influence of alkali activator on the main properties of intumescent inorganic polymers based on waste glass and borax*, Revista Română de Materiale / Romanian Journal of Materials 2019, 49 (1), p23-32, ISSN:1583-3186, FI=0.628 (Q4), WOS:000461413500003
- Ris26.** Nicoară, A.-I., Geanaliu-Nicolae, R.-E., Andronescu, E., Truşcă, R., *A novel method of synthesis for nanoporous silica materials*, Revista Romana de Materiale/ Romanian Journal of Materials, **2019**, 49(4), pp. 461-467, ISSN:1583-3186, FI= 0.628 (Q4), WOS:000502552300002
- Ris27.** Nicoara, A.I., Cirstea, N., Boscornea, C., Badanoiu, A., *Coatings with intumescent filler based on alkali activated glass*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, **2019**, 81(3), pp. 19-28, ISSN: 1454-2331, WOS:000487215400003
- Ris28.** Nicoara, A.I., Neacsu, I.A., Ene, V.L., Vasile, B.S., Ficai, A., Andronescu, E., *Hydroxyapatite/carbon based biocomposite scaffolds as prospective materials for bone tissue engineering*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, **2019**, 81(4), pp. 107-120, ISSN: 1454-2331, WOS:000501994100011
- Ris29.** Diamandescu, L., Cernea, M., Trusca, R., Enculescu, M., Tanase, L., Baibarac, M., Feder, M., Nicoara, A.-I., Popescu, T., *Effects of a surfactant on the morphology and photocatalytic properties of polycrystalline Fe-doped ZnO powders*, Journal of Physics and Chemistry of Solids, 121, **2018**, pp 319-328, DOI:10.1016/j.jpcs.2018.05.041, ISSN:0022-3697, FI=2.752 (Q2), WOS:000438321100042
- Ris30.** Bunoiu, I, Mindroiu, M., Manole, C.C., Andrei, M., Nicoara, A., Vasilescu, E., Popa, M., Didilescu, A.C., *“Electrochemical testing of a novel alloy in natural and artificial body fluids”*, Annals of Anatomy, **2018**, 217, pp. 54-59, DOI:10.1016/j.aanat.2017.12.011, ISSN: 0940-9602, FI=2.241(Q2), WOS:000438327100009
- Ris31.** Oproiu, C., Voicu, G., Nicoara, A.I., Badanoiu, A.I., *„The influence of partial substitution of raw materials with heavy ash on the main properties of portland cements”*, Revista de

- Chimie, 69 (4), 2018, pp. 860-863, ISSN:0034-7752, FI=1.605 (Q3), WOS:000433223000022
- Ris32.** Melinescu, A., Eftimie, M., **Nicoară, A.**, Trușcă, R., Preda, M., “*Synthesis of the ceramics with nepheline from geopolymeric*”, Revista Romana de Materiale/Romanian Journal of Materials 48(3), 2018, pp. 285-289, ISSN:1583-3186, FI=0.628 (Q4), WOS:000452733000001
- Ris33.** Al Saadi, T.H.A., Badanoiu, A.I., **Nicoara, A.I.**, Stoleriu, S., Voicu, G., *Synthesis and properties of alkali activated borosilicate inorganic polymers based on waste glass*, Construction and Building Materials, 2017, 136, pp. 298-306, DOI: 10.1016/j.conbuildmat.2017.01.026, ISSN: 0950-0618, FI=4.046 (Q1), WOS:000395967300030
- Ris34.** Bărbulescu, L., Bădănoiu, A., **Nicoară, A.**, Pîrvu, C., *Use of wastes from titanium industry as alternative aggregate for Portland cement mortars*, Revista Romana de Materiale/ Romanian Journal of Materials, 2017, 47(1), pp. 16-23, ISSN:1583-3186, FI=0.628 (Q4), WOS:000396979900002
- Ris35.** Ianculescu, A.-C., Vasilescu, C.-A., Trupina, L., Vasile, B.S., Trusca, R., Cernea, M., Pintilie, L., **Nicoară, A.**, *Characteristics of Ce³⁺-doped barium titanate nanoshell tubes prepared by template-mediated colloidal chemistry*, 2016, J. of European Ceramic Society. DOI:10.1016/j.jeurceramsoc.2016.01.045, ISSN: 0955-2219, FI=4.029 (Q1), WOS:000372381300012

COMUNICĂRI ȘTIINȚIFICE NEPUBLICATE

- E1.** **Adrian Ionut Nicoara**, Alexandra Elena Stoica , Mirijam Vrabec, Nastja Šmuc Rogan, Saso Sturm, Cleva Ow-Yang, Mehmet Ali Gulgun, Zeynep Basaran Bundur, Ion Ciuca, Bogdan Stefan Vasile, “*End-of-life materials applied in concrete industry*”, 3 Rd International Conference On Emerging Technologies In Materials Engineering, EmergeNAT, 29-30 October, Bucharest, 2020
- E2.** Cristina Busuioc, Izabela Stancu, **Adrian Nicoara**, Andreea Zamfirescu, Alexandru Evanghelidis *Electrospun Fibre Networks Loaded with Hydroxyapatite and Barium Titanate as Smart Scaffolds for Tissue Regeneration*, The 3rd International Conference on Composite Materials Science and Technology, Mar 19-20, Dubai, 2020

- E3. Adrian Ionut Nicoara**, Denisa Ionela Ene, Alina Maria Holban, Cristina Busuioc, „*Bacterial Cellulose/Silver-Doped Hydroxyapatite Composites for Tissue Engineering Application*”, 22th International Conference on Materials Engineering, Chemistry and Nanomaterials ICMECN 2020, Mar 19-20, Dubai, **2020**
- E4. C. Busuioc, A.I. Nicoara**; *Bacterial Cellulose - Hydroxyapatite Composites Decorated with Silver Nanoparticles for Medical Applications*; 28th Annual Conference Biomaterials in Medicine and Veterinary Medicine, October, Rytro, Poland (poster presentation), **2019**
- E5. Nicoară, A-I**, Bădănoiu, A, Voicu, G., Bălănoiu, M., Mathias, A., The effect of inorganic additions of gypsum behavior at high temperatures, 21th RICCE, Constanta, 4-7 Septembrie **2019**
- E6. A.I. Nicoară**, C. Busuioc, A. Mocanu, A. Stoica, M. Stroescu, S.I. Jinga, Composite scaffolds based on calcium phosphates and barium titanate for hard tissue implants, XVI ECerS, Torino, **2019**
- E7. Otilia Ruxandra Vasile**, Amelia Zmaranda, **Adrian Ionuț Nicoară**, Anton Fikai, Coralia Bleotu, Ionela Andreea Neacșu, Ecaterina Andronescu. “*Curcumin loaded Hydroxyapatite used for bone cancer treatment*”, 12 th International Conference on Physics of Advanced Materials (ICPAM-12), 22-28 September, Heraklion, **2018**
- E8. Aana Maria Dumitrescu**; **Adrian Nicoara**; Mihai Radu; Ioana Ardelean; Denisa Fikai; Ovidiu Oprea; Anton Fikai; Ecaterina Andronescu - Development and evaluation of antimicrobial products with controlled delivery, International Symposium of Chemical Engineering and Materials SICHEM, 6-7 September, Bucharest, **2018**
- E9. Adrian-Ionuț Nicoară**, Patricia Medeșan, Ionela Andreea Neacșu, Bogdan Vasile, Florin Iordache, Ecaterina Andronescu, Anton Fikai „*Folic acid-enhanced polyethylene glycol-coated Fe₃O₄ for Methotrexate delivery*”, NanoBio&Med2017 Noiembrie 22-24, Barcelona, **2017**
- E10. Nicoară, A-I**, Bădănoiu, A, Voicu, G., Bălănoiu, M., Mathias, A., Synthesis of alkali activated mortars with intumescent properties, 20th RICCE, Poiana Brașov, 6-9 Septembrie **2017**.
- E11. Nicoară, A-I**, Bădănoiu, A Voicu, G., Bălănoiu, M., Mathias, A., Alkali activated borosilicate inorganic geopolymers with intumescent properties, 2nd CREMS, Sinaia, 16-18 mai **2017**.

E12. Nicoară, A-I, Al Saadi, T.H.A, Bădănoiu, A Voicu, G., Stoleriu, S. Synthesis and properties of alkali activated borosilicate inorganic polymers, a XII-a editie CONSILOX, Sinaia, 16–20 Septembrie 2016.