

Universitatea POLITEHNICA București
Facultatea Chimie Aplicata si Stiinta Materialelor
Departamentul Stiinta si Ingneria Materialelor si Nanomaterialelor
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L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

“Procese de hidratare și întărire în sisteme liante complexe cu silice ultrafină” - Universitatea POLITEHNICA București, 1998

B. Cărți si capitole în cărți publicate in domeniul disciplinelor postului didactic

1. Metode de imobilizare/inertizare a unor deseuri toxice, A.Melinescu, A.Bădănoiu, V.Dima, Ed.POLITEHNICA Press, 2013
2. Matrice si materiale de armare pentru compozite performante, Maria Georgescu, Vasilica Dima, Alina Bădănoiu, M. Eftimie, Ed.POLITEHNICA Press, 2013
3. Lianti ecologici complecsi, A.Badanoiu, M.Georgescu, A.Puri, G.Voicu, D.Voinițchi, Ș.Stoleriu -, Ed. POLITEHNICA Press, 2008

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

1. **Badanoiu A.I.**, Nicoara A.I., Trusca R., Voicu G, Influence of polyethylene terephthalate (PET) flakes coating on the microstructure and mechanical properties of alkali activated composites, Results in Engineering, Volume 24, 2024,103085, ISSN 2590-1230, <https://doi.org/10.1016/j.rineng.2024.103085>.
2. Cirstea, N.F.; **Badanoiu, A.**; Boscornea, A.C. Intumescent Silicate Coatings with the Addition of Alkali-Activated Materials. *Polymers* **2022**, *14*, 1937. <https://doi.org/10.3390/polym14101937>
3. Dobrița, C. **Bădănoiu A.I.**, Voicu G., Nicoară A.I., Dumitru S.M, Pușcașu M.E., Chiriac S., Ene R., Iordache F, Porous bioceramic scaffolds based on akermanite obtained by 3D printing for bone tissue engineering, *Ceramics International*, Volume 49, Issue 22, Part B, 2023, Pages 35898-35906, ISSN 0272-8842, <https://doi.org/10.1016/j.ceramint.2023.08.270>
4. Cirstea N.F., **Badanoiu A.I.**, Voicu G., Nicoara A.I., Waste glass recycling in magnesium phosphate coatings for the fire protection of steel structures, *Journal of Building Engineering*, Volume 76, 2023, 107345, ISSN 2352-7102, <https://doi.org/10.1016/j.job.2023.107345>.
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6. **Bădănoiu, A.**; Moanță, A.; Dumitrescu, O.; Nicoară, A.I.; Trușcă, R. Waste Glass Valorization as Raw Material in the Production of Portland Clinker and Cement. *Materials* **2022**, *15*, 7403. <https://doi.org/10.3390/ma15207403>
7. Georgeta Voicu, Georgiana-Andreea Tiuca, **Alina-Ioana Badanoiu**, Alina-Maria Holban, Nano and mesoscopic SiO₂ and ZnO powders to modulate hydration, hardening and antibacterial properties of portland cements, *Journal of Building Engineering*, Volume 57, 2022,104862, ISSN 2352-7102, <https://doi.org/10.1016/j.job.2022.104862>.
8. Nicoara A.I., **Badanoiu A.I.** Influence of Alkali Activator Type on the Hydrolytic Stability and Intumescence of Inorganic Polymers Based on Waste Glass, *MATERIALS*, Volume 15, Issue 1, January-1 2022, Article number 147, DOI 10.3390/ma15010147
9. Oproiu, Carmen-Lidia, Voicu, Georgeta, **Badanoiu, Alina**, Nicoara, Adrian-Ionut, The Solidification/Stabilization of Wastewater (From a Landfill Leachate) in Specially Designed Binders Based on Coal Ash, *MATERIALS*, Volume 14, Issue 19, Article Number 5610, DOI 10.3390/ma14195610, Published OCT 2022

10. Vijan, Cristina Andreea, **Badanoiu, Alina**, Voicu, Georgeta, Nicoara, Adrian Ionut, Coatings Based on Phosphate Cements for Fire Protection of Steel Structures, MATERIALS, Volume 14, Issue 20, Article Number 6213, DOI 10.3390/ma14206213, OCT 2021
11. Vijan, Cristina Andreea, **Badanoiu, Alina**, Voicu, Georgeta, Nicoara, Adrian Ionut, Phosphate Cements Based on Calcined Dolomite: Influence of Calcination Temperature and Silica Addition, MATERIALS, Volume 14, Issue 14, Article Number 3838, DOI 10.3390/ma14143838, JUL 2021
12. Parvan, Marius-George, Voicu, Georgeta, **Badanoiu, Alina-Ioana**, Nicoara, Adrian-Ionut, Vasile, Eugeniu, CO₂ Sequestration in the Production of Portland Cement Mortars with Calcium Carbonate Additions NANOMATERIALS, 11 (4), 875, DOI 10.3390/nano11040875, APR 2021
13. Dima, Cristina, **Badanoiu, Alina**, Cirstea, Silviu, Nicoara, Adrian Ionut, Stoleriu, Stefania, Lightweight Gypsum Materials with Potential Use for Thermal Insulations MATERIALS, Volume 13, Issue 23, Article Number 5454, DOI 10.3390/ma13235454, DEC 2020
14. Nicoara, Adrian Ionut); **Badanoiu, Alina Ioana** ; Voicu, Georgeta ; Dinu, Cristian, Ionescu, Andrei, Intumescent coatings based on alkali-activated borosilicate inorganic polymers, JOURNAL OF COATINGS TECHNOLOGY AND RESEARCH, Volume: 17, Issue: 3, Pages: 681-692, DOI: 10.1007/s11998-019-00274-7, MAY 2020
15. Barbulescu, Laura Eugenia; Dumitriu, Cristina; Dragut, Dumitru Valentin; Nicoara, Adrian; **Badanoiu, Alina**; Pirvu, Cristian, Residual titanium flakes as a novel material for retention and recovery of rare earth and relatively rare earth elements, ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, 27, Issue: 4, Pages: 4450-4459, FEB 2020
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19. Stoleriu, S., Vlasceanu, I. N., Dima, C.; **Badanoiu, A.**; Voicu, G. , Alkali activated materials based on glass waste and slag for thermal and acoustic insulation, MATERIALES DE CONSTRUCCION, Volume: 69, Issue: 335, Article Number: UNSP e194, JUL-SEP 2019
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31. **A. Badanoiu**; E. Iordache, R. Ionescu, G. Voicu, E. Matei, “Effect Of Composition And Curing Regime On Some Properties Of Geopolymers Based On Cathode Ray Tubes Glass Waste And Fly Ash” Romanian Journal Of Materials 45 (1),3-13, 2015

D. Lucrări publicate în ultimii 10 ani în reviste și volume de conferințe cu referenți

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3. A. Badanoiu, M. Taran, G. Voicu, „Influence of thermally treated fine fraction resulted from the processing of concrete rubble on some properties of plaster”, IBAUSIL 19, vol. 2, 2-597, Weimar, Germania, 2015
4. T.H.A. Al Saadi, A. Badanoiu, G. Voicu, S. Stoleriu, „Inorganic polymers based on cullet glass”, IBAUSIL 19, vol. 2, 2-735, Weimar, Germania, 2015, ISBN-978-3-00-050225-5.

E. Proiecte – in domeniul disciplinelor postului in ultimii 10 ani

1. PED 309/UEFISCDI/2020-2022/ UPB - CEPROCIM S.A. – DESTICIM, Utilizarea durabilă a deșeurilor de sticlă în domeniul cimentului Portland, 2020-2022;
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F. Brevete obținute în întreaga activitate

1. Non-Conventional Process For Producing Silicate Clinker Used For Carrying Out Dental Cement, PATENT NUMBER(S): RO129430-A2, INVENTOR(S): VOICU G, ANDRONESCU E, GHITULICA C D, BADANOIU A I
2. Organic Matrix Composition Based On Modified Polyalkenoic Acids And 2-Hydroxy-Ethyl-Methacrylate And Resin-Modified Ionomer Cement Composition, For Dental Purposes, Containing The Same, PATENT NUMBER:RO123366-B1, INVENTOR(S):PREJMEREAN C, MOLDOVAN M,BURUIANA T,BURUIANA E,BADANOIU A,VOICU G,TRIF M,SILAGHI D L,FURTOS G,COLCERIU A,TAMAS C,PRODAN D, MUSAT O.

