
Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Facultatea: Inginerie Chimică și Biotehnologii

Departamentul: Știința și Ingineria Materialelor Oxidice și Nanomateriale

Nume Prenume: Eftimie Mihai Alexandru

Gradul didactic: Conferențiar

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

1. Predicția proprietăților sistemelor vitroase oxidice, Universitatea Politehnica București, 2011.

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

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

C.1. Badanoiu, A.-I.; Stoleriu, S.-P.; Caroce, A.-C.; Eftimie, M.-A.; Trusca, R. Influence of Synthesis Route on Composition and Main Properties of Mullite Ceramics Based on Waste. *Materials* 2025, 18, 1098. <https://doi.org/10.3390/ma18051098>

C.2. Eftimie M., Filip A.V., Danescu C.B., Nitescu A., Sava B.A., Obtaining and conductive properties of a vanadate-borate-phosphate glass. *Sci Rep* 13, 16054 (2023). <https://doi.org/10.1038/s41598-023-43302-8>

C.3. Vasiliu, I.C., Filip, A.V., Chilibon, I., Elisa, M., Bartha, C., Kuncser, V., Leca, A., Boroica, L., Sava, B.A., Trusca, R., Eftimie M., Nicoară A. - Effect of P₂O₅ Content on Luminescence of Reduced Graphene-Oxide-Doped ZnO–P₂O₅ Nano-Structured Films Prepared via the Sol–Gel Method. *Materials*. 2023, 16(18):6156. <https://doi.org/10.3390/ma16186156>,

C.4. Filip, AV., Sava, BA., Medianu, RV., Boroica, L., Dinca, MC., Pascu, R., Tigau, N., Andrei, A., Moldovan, A., Dumitru, M., Oane, M., Eftimie, M. - Ultrathin Films of Silver by Magnetron Sputtering, *Inorganics*, 10, 12, 2022, 235, eISSN 2304-6740, <https://doi.org/10.3390/inorganics10120235>, WOS:000902667300001

C.5. Isopencu, G., Eftimie, M., Melinescu, A., Dancila, AM., Mares, M. - Recycling of Glass Waste by Deposition of TiO₂ for the Intensification of the Photocatalytic Effect in the Purification of Wastewater, *Coatings*, 12, 11, 2022, 1974, eISSN 2079-6412, <https://doi.org/10.3390/coatings12111794>, WOS:000894887600001

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- C.6. Melinescu A., Volceanov E., Eftimie M., Batalu D., Volceanov A., Popescu L. G. – Hardenability of electroless chemical Ni-P-TiO₂ nanocomposite coatings on low carbon steel substrates, *Roumanian Journal of Materials*, 52, 2, 2022, 99-107, ISSN 1583-3186, WOS:000829023400001
- C.7. Nicoara A.I., Eftimie M., Elisa M., Vasiliu I.C., Bartha C., Enculescu M., Filipescu M., Aguado C.E., Lopez D., Sava B.A., Oane M. - Nanostructured PbS-Doped Inorganic Film Synthesized by Sol-Gel Route, *Nanomaterials* 12, 2022, 3006, eISSN 2079-4991, <https://doi.org/10.3390/nano12173006>, WOS:000851922700001
- C.8. Ghizdavet Z., Dumitrescu O., Eftimie M., Moanta A., Petre I., Cirstea N. - Correlations raw mix composition - processing - cement properties with partial substitution of the raw materials with glass wastes, *Romanian Journal of Materials*, 52, 2, 2022, 156-160, ISSN 1583-3186, WOS:000829023400007
- C.9. Elisa M., Iordache S.M., Iordache A.M., Stefan C.R., Vasiliu I.C., Cristea D., Ursutiu D., Samoila C., Sava B.A., Boroica L., Dinca M.C., Filip A.V., Eftimie M., Enculescu M. - Investigations Regarding the Addition of ZnO and Li₂O-TiO₂ to Phosphate-Tellurite Glasses: Structural, Chemical, and Mechanical Properties, *MATERIALS*, 15, 5, 1644, 2022, eISSN 1996-1944, <https://doi.org/10.3390/ma15051644>, WOS:000774225400001
- C.10. Melinescu A., Volceanov E., Eftimie M., Volceanov A., Popescu L., Trusca R. - Effect of low carbon steel surface preparation on Ni-P and Ni-P-Al₂O₃ electroless coatings characteristics, *Romanian Journal of Materials*, 51, 4, 2021, 475-484, ISSN: 1583-3186, WOS:000735439000001
- C.11. Volceanov E., Eftimie M., Melinescu A., Volceanov A., Surdu A. - Synthesis and characterization of autocatalytic nickel-phosphorus coatings containing nanosized oxide particles, *Romanian Journal of Materials*, 51, 4, 2021, 485-494, ISSN: 1583-3186, WOS:000735439000002
- C.12. Manasia T., Manolache A.F., Ionescu V., Muțescu M., Eftimie M., Todașcă C. - Evolution of phenolic compounds during the red grapes fermentation in the presence of trace metals, *University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science*, 83, 2, 2021, 27-36, ISSN: 1454-2331, WOS:000661663200003
- C.13. Sava B. A., Filip A. V., Boroica L., Eftimie M., Dinca M. C., Soroaia A., Trefilov A. M. I., Filipescu M., Brajnicov S., Moldovan A., Iordache A. M., Elisa M. - Dy³⁺ and Tb³⁺ co-doped boro-phosphate sol-gel vitreous thin films, *Journal of Sol-Gel Science and Technology*, 97, 2021, 39–47, ISSN: 0928-0707, <https://doi.org/10.1007/s10971-020-05427-4>, WOS:000585687700002
- C.14. Elisa, M., Stefan, R.C., Vasiliu, I.C., Iordache, S.M., Iordache, A.M., Sava, B.A., Boroica, L., Dinca, M.C., Filip, A.V., Galca, A.C., Bartha, C., Iacob, N., Rusu, M.I., Eftimie, M., Kuncser, V. - A New Zinc Phosphate-Tellurite Glass for Magneto-Optical Applications, *Nanomaterials*, 10 (9), 2020, 1875, eISSN:2079-4991, <https://doi.org/10.3390/nano10091875>, WOS:000579935000001
- C.15. Elisa M., Boroica L., Sava B.A., Iordache S.M., Iordache A.M., Vasiliu C.I., Stefan C.R., Galca A.C., Kuncser V., Eftimie M. - Synthesis and characterization of a titanium phosphate-tellurite glass for Faraday rotators, *Journal of the American Ceramic Society*, 103 (7) 2020, 3978-3990, ISSN: 0002-7820, <https://doi.org/10.1111/jace.17071>, WOS:000533557400008
- C.16. Eftimie M., Filip A. - Chemical composition-basicity-thermodynamic properties correlations on the formation of MO-SiO₂ compounds, *University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science*, 82(2), 2020, 109-120, ISSN 1454-2331, WOS:000550842800010
- C.17. Eftimie M., Filip A., Todasca C., Serban L. - Investigation of the glass containers regarding the migration of ions with food degradation potential - *Romanian Journal of Materials*, 50 (1) 2020, 33-39, ISSN: 1583-3186, WOS:000519991200005

- C.18. Stanciu, C.A., Pintilie, I., Surdu, A., Trușcă, R., Vasile, B.S., Eftimie, M., Ianculescu, A.C. - Influence of sintering strategy on the characteristics of sol-gel $Ba_{1-x}Ce_xTi_{1-x}/4O_3$ ceramics, *Nanomaterials* 9 (12) 2019, 1675, eISSN:2079-4991, <https://doi.org/10.3390/nano9121675>, WOS:000506675800031
- C.19. Elisa, M., Stefan, R., Vasiliu, I.C., Rusu M.I., Sava, B.A., Boroica, L., Sofronie, M., Kuncser, V., Galca, A.C., Beldiceanu, A., Volceanov, A., Eftimie, M. - Thermal, structural, magnetic and magneto-optical properties of dysprosium-doped phosphate glass, *Journal of Non-Crystalline Solids*, 521, 2019, 119545, ISSN: 0022-3093, <https://doi.org/10.1016/j.jnoncrysol.2019.119545>, WOS:000484644700048
- C.20. Melinescu, A., Eftimie, M., Nicoară, A., Trușcă, R., Preda, M. - Synthesis of the ceramics with nepheline from geopolymeric precursors, *Romanian Journal of Materials*, 48, (3), 2018, 285-289, ISSN:1583-3186, WOS:000452733000001
- C.21. Stefan, C.R., Elisa, M., Vasiliu, I.C., Sava, B.A., Boroica, L., Sofronie, M., Tolea, F., Enculescu, M., Kuncser, V., Beldiceanu, A., Volceanov, A., Eftimie, M. - Magneto-optical properties of Ce^{3+} and Tb^{3+} -doped silico-phosphate sol-gel thin films, *Applied Surface Science*, 448, 2018, 474-480, ISSN: 0169-4332, <https://doi.org/10.1016/j.apsusc.2018.04.067>, WOS:000432797100053
- C.22. Sava, B.A., Boroica, L., Elisa, M., Shikimaka, O., Grabco, D., Popa, M., Barbos, Z., Iordanescu, R., Niculescu, A.M., Kuncser, V., Galca, A.C., Eftimie, M., Monteiro, R.C.C. - Bismuth and lead oxides codoped boron phosphate glasses for Faraday rotators, *Ceramics International*, 44, (6), 2018, 6016-6025, ISSN: 0272-8842, <https://doi.org/10.1016/j.ceramint.2017.12.205>, WOS:000427215100029
- C.23. Elisa, M., Iordanescu, R., Vasiliu, C., Sava, B.A., Boroica, L., Valeanu, M., Kuncser, V., Galca, A.C., Volceanov, A., Eftimie, M., Melinescu, A., Beldiceanu, A. - Magnetic and magneto-optical properties of Bi and Pb-containing aluminophosphate glass, *Journal of Non-Crystalline Solids*, 465, 2017, 55-58, ISSN: 0022-3093, <https://doi.org/10.1016/j.jnoncrysol.2016.11.010>, WOS:000484644700048
- C.24. Eftimie, M., Marinescu, E., Melinescu, A., Moncea, A. - Studii asupra cristalizării unor compoziții de sticlă cu conținut scăzut de oxid de bariu/Studies regarding the crystallization of some glass compositions with low barium oxide content - *Romanian Journal of Materials*, 46, (4), 2016, 538-541, ISSN: 1583-3186, WOS:000390552600019
- C.25. Ghizdăveț, Z., Năstac, D., Eftimie, M., Ștefan, B., Stanciu, I., Volceanov, A. - Corelații compoziție - Procesare - Microstructură la clinchere. Implicații/ Correlations composition-processing-microstructure on some clinkers. Implications - *Romanian Journal of Materials*, 46, (4), 2016, 453-464, ISSN: 1583-3186, WOS:000390552600008
- C.26. Eftimie M., Melinescu A. - Glassceramics from CRT glass waste with TiO_2 as nucleating agent - *Romanian Journal of Materials*, 45, (4), 2015, 424-427, ISSN: 1583-3186, WOS:000367029800017
- C.27. Melinescu A., Eftimie M. – Materiale ceramice tialitice cu dilatare termică redusă/Tialite-based ceramic materials with low thermal expansion – *Romanian Journal of Materials*, 45, (2), 2015, 194-199, ISSN:1583-3186, WOS:000356637100012

D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)

- Reviste

- D.1. Chirca O., Bicleșanu C., Eftimie M., Constantinoiu I., Muja R., Florescu A., Burcea A. - Comparative study related to the physicochemical properties of ceramic materials and the clinical

implications, Romanian Journal of Stomatology, 66 (2) 2020, 92-102, <https://doi.org/10.37897/RJS.2020.2.6>

D.2. Călinoiu Ș.G., Bicleșanu C., Eftimie M., Florescu A., Burcea A. - Comparative study regarding the compressive strength of 4th generation adhesive systems and universal adhesives, Romanian Journal of Stomatology, 66 (2) 2020, 83-91, <https://doi.org/10.37897/RJS.2020.2.5>

D.3. Abood Al-Saadi, T.H., Badanoiu, A., Stoleriu, S., Voicu, G., Eftimie, M. - Mechanical Properties and Hydrolytic Stability of Geopolymers Based on White Waste Glass. Influence of Thermal Treatment, University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science, 77 (4) 2015, 15-28

E. Brevete obținute în întreaga activitate

E.1. M. Elișa, B.A. Sava, L. Boroica, R. Iordănescu, I. Feraru, M. Eftimie, A. Beldiceanu - Sticle aluminofosfatice care conțin ioni de pământuri rare, utilizate ca senzori optici și procedeul de obținere a acestora, RO 130686 B1 30/07/2019

E.2 A.-C. Ianculescu, C.-A. Stanciu, B. Ș. Vasile, R.D. Trușcă, A. I. Nicoară, M.-A. Eftimie, V.-A. Surdu – Procedeul de obținere a unor nanostructuri unidimensionale de BaTiO₃ dopat cu ceriu cu caracteristici feroelectrice și piezoelectrice, RO 133773 B1 30/09/2021

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