

Dumitru Doru BURDUHOS NERGIS

Publication list

Books and chapters:

Vizureanu Petrica, Burduhos-Nergis Dumitru-Doru, Green Materials Obtained by Geopolymerization for a Sustainable Future, Materials Research Foundations, vol. 90, ISBN 978-1-64490-112-0, doi: 10.21741/9781644901137.

Vizureanu Petrica, Burduhos-Nergis Dumitru-Doru, Sandu Andrei Victor, Burduhos Nergis Diana Petronela and Baltatu Madalina Simona, Advances in Geopolymers Synthesis and Characterization, capitol de carte: The physical and mechanical characteristics of fly ash based geopolymers reinforced with mine tailings, IntechOpen, 2021, ISBN 978-1-83968-989-5. DOI: 10.5772/intechopen.97807.

Vizureanu P., Bălțatu M.S., Sandu A.V., Achitei D.C., Burduhos Nergis D.D., Perju M.C., New Trends in Bioactive Glasses for Bone Tissue: A review, Current Concepts in Dental Implantology - From Science to Clinical Research, IntechOpen, 2021, DOI: <http://dx.doi.org/10.5772/intechopen.100567>.

Burduhos-Nergis Diana Petronela, Burduhos-Nergis Dumitru-Doru, Madalina-Simona Baltatu, Petrica Vizureanu, Advanced Coatings for the Corrosion Protection of Metals, Materials Research Foundations, vol. 115, ISBN 978-1-64490-166-3, doi: 10.21741/9781644901670.

Scientific papers published in ISI-listed journals or indexed in international databases

Yahya, Zarina, Mohd M.A.B. Abdullah, Long-yuan Li, Dumitru D. Burduhos Nergis, Muhammad A.A.Z. Hakimi, Andrei V. Sandu, Petrica Vizureanu, and Rafiza A. Razak, Behavior of Alkali-Activated Fly Ash through Underwater Placement, Materials, 2021, 14, no. 22: 6865. doi: 10.3390/ma14226865.

Burduhos-Nergis, Diana-Petronela, Gabriel D. Vasilescu, Dumitru-Doru Burduhos-Nergis, Ramona Cimpoesu, and Costica Bejinariu, Phosphate Coatings: EIS and SEM Applied to Evaluate the Corrosion Behavior of Steel in Fire Extinguishing Solution, Applied Sciences, 2021, 11, no. 17: 7802. doi: 10.3390/app11177802.

Bolborea Bogdan, Cornelia Baera, Sorin Dan, Aurelian Gruin, Dumitru-Doru Burduhos-Nergis, and Vasilica Vasile, Concrete Compressive Strength by Means of Ultrasonic Pulse Velocity and Moduli of Elasticity, Materials, 2021, 14, no. 22: 7018. doi: 10.3390/ma14227018;

Burduhos Nergis Dumitru Doru, Vizureanu Petrica, Ardelean Ioan, Sandu Andrei Victor, Corbu Ofelia, Ecaterina Matei, Revealing the Influence of Microparticles on Geopolymers' Synthesis and Porosity, Materials, 2020, 13, p. 3211.

Burduhos Nergis Dumitru Doru, Abdullah Mohd Mustafa Al Bakri, Sandu Andrei Victor, Vizureanu Petrica, XRD and TG-DTA Study of New Alkali Activated Materials Based on Fly Ash with Sand and Glass Powder, Materials, 2020, 13(2), p. 343.

Burduhos Nergis Dumitru Doru, Vizureanu Petrica, Corbu Ofelia, Synthesis and Characteristics of Local Fly Ash Based Geopolymers Mixed with Natural Aggregates, Revista de Chimie, 2019, 70(4), pp. 1262-1267.

Perju Manuela-Cristina, Nejnereu Carmen, Tugui Catalin Andrei, Burduhos Nergis Dumitru Doru, Galusca Dan-Gelu, Microstructural Analysis of Three Layer Depositions with Ni and Ti on Steel Using the EDS Method, The Annals of "Dunarea de Jos" University of Galati Fascicle IX Metallurgy

and Materials Science, 2019, 42(2), pp. 5-8.

Burduhos Nergis Diana Petronela, Nejneru Carmen, Bejinariu Costica, Sandu Andrei Victor, Savin Cristian, Toma Stefan, Burduhos Nergis Dumitru Doru, The Galvanic Corrosion Behavior of Phosphated Carbon Steel Used at Carabiners Manufacturing, *Revista de Chimie*, 2019, 70(1), pp. 215-219.

Popescu Simona, Stanciu Sergiu, Cimpoeșu Ramona, Burduhos Nergis Dumitru Doru, Cimpoesu Nicanor, Chemical Composition Investigation of Zn-Mg Alloy, *European Journal of Materials Science and Engineering*, 2018, 3, pp. 184-188.

Burduhos Nergis Dumitru Doru, Abdullah Mohd Mustafa Al Bakri, Vizureanu Petrica, The Effect of Fly Ash/Alkaline Activator Ratio in Class F Fly Ash Based Geopolymers, *European Journal of Materials Science and Engineering*, 2017, 2(4), pp. 111-118.

Nejneru Carmen, Perju Manuela Cristina, Burduhos Nergis Dumitru Doru, Sandu Andrei Victor, Bejinariu Costica, Galvanic Corrosion Behaviour of Phosphate Nodular Cast Iron in Different Types of Residual Waters and Couplings, *Revista de Chimie*, 2019, 70(10), pp. 3597-3602.

Perju Manuela Cristina, Nejneru Carmen, Axinte Mihai, Burduhos-Nergis Dumitru Doru, Mirică Traian, Computer-Assisted Processing For Rolling Mill Frame Reconditioning, *European Journal of Materials Science and Engineering*, 2019, 4(3), pp. 148-157. doi:10.36868/ejmse.2019.04.03.148.

Scientific papers published in conference volumes:

Burduhos Nergis Dumitru Doru, Petrica Vizureanu, Topa Denis, Minciuna Mirabela Georgiana, Abdullah Mohd Mustafa Al Bakri, Influence of Microparticles on Setting Time and Micromorphology of Coal Ash Geopolymers, *IOP Conf. Series: Materials Science and Engineering*, 2020, 877, 012044.

Zailani Wan W A, Abdullah Mohd Mustafa Al Bakri, Arshad M F, Mohd Tahir Muhammad Faheem, Burduhos Nergis Dumitru Doru, Effect of Iron Oxide (Fe_2O_3) on the Properties of Fly Ash Based Geopolymer, *IOP Conf. Series: Materials Science and Engineering*, 2020, 877, 012017.

Perju Manuela Cristina, Nejneru Carmen, Vizureanu Petrica, Burduhos Nergis Dumitru Doru, Sandu Andrei Victor, Microstructural Analysis of Multiple Layer Depositions on Cast Iron Using the Electrospark Deposition Method, *IOP Conf. Series: Materials Science and Engineering*, 2020, 877, 012019.

Baltatu Madalina Simona, Vizureanu Petrica, Baltatu Iustinian, Burduhos Nergis Dumitru Doru, Achitei Dragos Cristian, Perju Manuela Cristina, Electrochemical Behaviour of Ti-Mo Alloys for Medical Application in Biological Solution, *IOP Conf. Series: Materials Science and Engineering*, 2020, 877, 012031.

Burduhos Nergis Dumitru Doru, Vizureanu Petrica, Andrusca Liviu, Achitei Dragos, Performance of local fly ash geopolymers under different types of acids, *IOP Conference Series: Materials Science and Engineering*, 2019, 572, 012026. doi:10.1088/1757-899X/572/1/012026.

Arvinte C, Sandu Andrei Victor, Burduhos Nergis Dumitru Doru, Bernevig Sava Mihai, Bejinariu Costica, Technical requirements and materials used in firefighters gloves manufacturing, *IOP Conference Series: Materials Science and Engineering*, 2019, 572, 012070. doi:10.1088/1757-899X/572/1/012070.

Nejneru Carmen, Savin Cristian, Perju Manuela Cristina, Burduhos Nergis Dumitru Doru, Costea M, Bejinariu Costica, Studies on galvanic corrosion of metallic materials in marine medium, *IOP Conference Series: Materials Science and Engineering*, 2019, 572, 012106. doi:10.1088/1757-

899X/572/1/012106.

Burduhos-Nergis Diana-Petronela, Sandu Andrei-Victor, Burduhos-Nergis Dumitru-Doru, Darabont Doru-Costin, Comaneci Radu-Ioachim, Bejinariu Costica, Shock Resistance Improvement of Carbon Steel Carabiners Used at PPE, MATEC Web Conf., 2019, 290, 12004. doi:10.1051/matecconf/201929012004.

Burduhos Nergis Dumitru Doru, Abdullah Mohd Mustafa Al Bakri, Vizureanu Petrica, Mohd Tahir Muhammad Faheem, Geopolymers and Their Uses: Review, IOP Conference Series: Materials Science and Engineering, 2018, 374, 012019. doi:10.1088/1757-899X/374/1/012019.

Yahya Zarina, Abdullah Mohd Mustafa Al Bakri, Mohd Ramli N, Burduhos Nergis, Dumitru Doru, Abd Razak R, Influence of Kaolin in Fly Ash Based Geopolymer Concrete: Destructive and Non-Destructive Testing, IOP Conference Series: Materials Science and Engineering, 2018, 374, 012068. doi:10.1088/1757-899X/374/1/012068.

Gălușcă Gelu, Perju Manuela Cristina, Nejneru Carmen, Burduhos Nergis Dumitru Doru, Lăzărescu I, Aluminum Coating Influence on Nitride Layer Performance Deposited by MO-CVD in Fluidized Bed on Austenitic Stainless Steel Substrate, IOP Conference Series: Materials Science and Engineering, 2018, 374, 012020. doi:10.1088/1757-899X/374/1/012020.

Scientific papers presented at conferences:

Burduhos Nergis Dumitru Doru, Vizureanu Petrica, The effect of fine aggregates in fly ash-based geopolymers, 11th International Conference on Materials Science and Engineering – BraMat 2019, Section: Ceramics, polymers and composite materials, 13-16.03.2019, Brasov, Romania.

Patent application.

Burduhos Nergis Dumitru Doru, Vizureanu Petrică, Corbu Ofelia-Cornelia, Abdullah Mohd Mustafa Al Bakri, Sandu Victor-Andrei, Ecological Geopolymer Based on Thermal Power Plant Ash and Glass Powder from Recycled Waste for Construction Applications and Process for Obtaining It, Patent application A/00038/25.01.2019 in România.

Reserch projects.

Member - Grantului Intern GI/P20/2021, Proiect pentru sustinerea capacitatii de publicare - PUBLICATII, competitie organizata în cadrul TUIASI; Director de proiect: Andrei Victor SANDU;

Member - Grantului Intern GI/P38/2021, Proiect pentru sustinerea capacitatii de publicare - PUBLICATII, competitie organizata în cadrul TUIASI; Director de proiect: Madalina Simona BALTATU;

Member - TUIASI-COMPETE, finanțat de Ministerul Cercetării și Inovării în cadrul competiției PNCDI III, Programul 1 - Dezvoltarea sistemului național de cercetare-dezvoltare, Subprogramul 1.2 – Performanță instituțională – Proiecte de dezvoltare instituțională – Proiecte de finanțare a excelenței în CDI;

TUIASI-COMPETE, financed by the Ministry of Research and Innovation within the PNCDI III competition, Program 1 - Development of the national research-development system, Subprogram 1.2 - Institutional performance - Institutional development projects - Projects for financing excellence in RDI;

ROSE SECONDARY EDUCATION PROJECT. Successful integration in university studies at the Faculty of Materials Science and Engineering from the "Gheorghe Asachi" Technical University of Iasi, Success_key. Grant agreement no. 196 / SGU / NC / II

Awards.

Burduhos Nergiș Dumitru Doru, Vizureanu Petrică, Corbu Ofelia-Cornelia, Abdullah Mohd Mustafa Al Bakri, Sandu Victor-Andrei, Ecological Geopolymer Based on Thermal Power Plant Ash and Glass Powder from Recycled Waste for Construction Applications and Process for Obtaining It:

Gold medal – The 5th Anniversary edition of the International Invention Innovation Competition in Canada „iCAN 2020”, 29.08.2020;

Gold award – World Invention Creativity Olympic “WICO 2020”, 20-22.08.2020;

Gold medal – International exhibition of inovations and inventions “Traian Vuia”, 14.06.2020;

Diploma of honor – XXIV-th International Exhibition of Inventics „INVENTICA 2020” 29-31.07.2020;

Gold medal - International Specialized Exhibition "INFOINVENT" 16th edition / 20-23.11.2019

Silver medal - The 4th Istanbul International Inventions Fair ISIF'19 / 17-22.09.2019

Diploma of excellence - CorneliuGroup Association / 22.03.2019

Diploma of Excellence and Pro Invent Medal - Pro Salvent International Exhibition of Scientific Research, Innovation and Inventions / 20-22.03.2019

Silver medal - European Exhibition of Creativity and Innovative- EUROINVENT / 18.05.2019

Gold medal with the congratulations of the jury - The International Student Innovation and Scientific Research Exhibition „Cadet Inova'19” /11-13.04.2019

Gold Medal - Innovation and Creative Education Fair for Youth ICE-USV- IIIrd Edition / 18-20.06.2019

The Polytechnic Innovation Award - International Conference of Innovative Research- ICIR / 16-18.05.2019

Diploma of Excellence - International Exhibition of Inventions and Innovations "Traian Vuia" Timisoara / 12-14.06.2019

Diploma of appreciation NIRD URBAN-INCERC - International Conference of Innovative Research- ICIR / 16-18.05.2019

Burduhos Nergiș Dumitru Doru, Minciuna Mirabela-Georgiana, Baltatu Madalina-Simona Achitei, Dragos-Cristian, Vizureanu Petrica, (2018), Bronze medal at "Cadet INOVA'18", „Equipment for Testing at Thermal and/or Mechanical Fatigue”.

3. Bunduc Dumitru Doru, (2015), The 3th prize at „CERC 2015 Students' International Conference