

# Bogdan Istrate

## List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Properties and in vitro assessment of ZrO <sub>2</sub> -based coatings obtained by atmospheric plasma jet spraying on biodegradable Mg-Ca and Mg-Ca-Zr alloys. <i>Ceramics International</i> , 2020, 46, 15897-15906.	4.8	36
2	Microstructural Analysis and Tribological Behavior of Ti-Based Alloys with a Ceramic Layer Using the Thermal Spray Method. <i>Coatings</i> , 2020, 10, 1216.	2.6	27
3	Synthesis and adsorption properties of nanocrystalline ferrites for kinetic modeling development. <i>International Journal of Applied Ceramic Technology</i> , 2019, 16, 693-705.	2.1	21
4	Characterization of Some Master Mg-X System (Ca, Mn, Zr, Y) Alloys Used in Medical Applications. <i>Revista De Chimie (discontinued)</i> , 2017, 68, 1310-1315.	0.4	19
5	In vivo degradation behavior and biological activity of some new Mg-Ca alloys with concentration's gradient of Si for bone grafts. <i>Applied Surface Science</i> , 2015, 352, 140-150.	6.1	18
6	Microstructural Analysis and Tribological Behavior of AMDRY 1371 (Mo-NiCrFeBSiC) Atmospheric Plasma Spray Deposited Thin Coatings. <i>Coatings</i> , 2020, 10, 1186.	2.6	18
7	Influence of ZrO <sub>2</sub> -Y <sub>2</sub> O <sub>3</sub> and ZrO <sub>2</sub> -CaO coatings on microstructural and mechanical properties on Mg-1,3Ca- 5,5Zr biodegradable alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 133, 012010.	0.6	16
8	Electrochemical Behavior of Biodegradable FeMnSi-MgCa Alloy. <i>Metals</i> , 2018, 8, 541.	2.3	15
9	Microstructural, Electrochemical and In Vitro Analysis of Mg-0.5Ca-xGd Biodegradable Alloys. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 981.	2.5	15
10	The Influence of Chromium Content on the Structural and Mechanical Properties of AlCr <sub>x</sub> FeCoNi High Entropy Alloys. <i>International Journal of Engineering Research in Africa</i> , 2018, 37, 23-28.	0.7	14
11	Eco-Friendly Biosorbents Based on Microbial Biomass and Natural Polymers: Synthesis, Characterization and Application for the Removal of Drugs and Dyes from Aqueous Solutions. <i>Materials</i> , 2021, 14, 4810.	2.9	14
12	The influence of ZrO <sub>2</sub> /20%Y <sub>2</sub> O <sub>3</sub> and Al <sub>2</sub> O <sub>3</sub> deposited coatings to the behavior of an aluminum alloy subjected to mechanical shock. <i>Applied Surface Science</i> , 2015, 352, 169-177.	6.1	12
13	Microstructural analysis of biodegradable Mg-0.9Ca-1.2Zr alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 147, 012033.	0.6	12
14	Electrochemical Analysis and In Vitro Assay of Mg-0.5Ca-xY Biodegradable Alloys. <i>Materials</i> , 2020, 13, 3082.	2.9	12
15	Powder metallurgy and mechanical alloying effects on the formation of thermally induced martensite in an FeMnSiCrNi SMA. <i>MATEC Web of Conferences</i> , 2015, 33, 04004.	0.2	10
16	Hot Rolling Effects on the Microstructure and Chemical Properties of NiTiTa Alloys. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 7273-7280.	2.5	10
17	Nanostructured quaternary Ni <sub>1-x</sub> Cu <sub>x</sub> Fe <sub>2-y</sub> Ce <sub>y</sub> O <sub>4</sub> complex system: Cerium content and copper substitution dependence of cation distribution and magnetic-electric properties in spinel ferrites. <i>Ceramics International</i> , 2021, 47, 18177-18187.	4.8	10
18	IN VITRO ELECTROCHEMICAL PROPERTIES OF BIODEGRADABLE YSZ-COATED MgCa ALLOY. <i>Environmental Engineering and Management Journal</i> , 2016, 15, 955-963.	0.6	10

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19	Controlling and Monitoring of Welding Parameters for Micro-Alloyed Steel Pipes Produced by High Frequency Electric Welding. <i>Advanced Materials Research</i> , 2014, 1036, 464-469.	0.3	9
20	A Study of Martensite Formation in Powder Metallurgy Fe-Mn-Si-Cr-Ni Shape Memory Alloys. <i>Materials Today: Proceedings</i> , 2015, 2, S789-S792.	1.8	9
21	Electro-chemical Corrosion of a Cast Iron Protected with a Al <sub>2</sub> O <sub>3</sub> Ceramic Layer. <i>Revista De Chimie (discontinued)</i> , 2019, 69, 3586-3589.	0.4	9
22	Evaluation of Keratin/Bacterial Cellulose Based Scaffolds as Potential Burned Wound Dressing. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 1995.	2.5	8
23	New Zn <sub>3</sub> Mg-xY Alloys: Characteristics, Microstructural Evolution and Corrosion Behavior. <i>Materials</i> , 2021, 14, 2505.	2.9	8
24	Factors influencing martensite transitions in Fe-based shape memory alloys. <i>MATEC Web of Conferences</i> , 2015, 33, 04002.	0.2	7
25	Preliminary Results of FeMnSi+Si(PLD) Alloy Degradation. <i>Key Engineering Materials</i> , 0, 638, 117-122.	0.4	7
26	XRD and Microstructural Analyses on Biodegradable Mg Alloys. <i>Key Engineering Materials</i> , 2015, 638, 79-84.	0.4	7
27	Preliminary Microstructural and Microscratch Results of Ni-Cr-Fe and Cr <sub>3</sub> C <sub>2</sub> -NiCr Coatings on Magnesium Substrate. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 209, 012024.	0.6	7
28	Structural Characterization of Mg-0.5Ca-xY Biodegradable Alloys. <i>Key Engineering Materials</i> , 2018, 782, 129-135.	0.4	7
29	Tribological Behavior and Microstructural Analysis of Atmospheric Plasma Spray Deposited Thin Coatings on Cardan Cross Spindles. <i>Materials</i> , 2021, 14, 7322.	2.9	7
30	Biosorption Potential of Microbial and Residual Biomass of <i>Saccharomyces pastorianus</i> Immobilized in Calcium Alginate Matrix for Pharmaceuticals Removal from Aqueous Solutions. <i>Polymers</i> , 2022, 14, 2855.	4.5	7
31	The behavior of ZrO <sub>2</sub> /20%Y <sub>2</sub> O <sub>3</sub> and Al <sub>2</sub> O <sub>3</sub> coatings deposited on aluminum alloys at high temperature regime. <i>Applied Surface Science</i> , 2015, 352, 178-183.	6.1	6
32	Corrosion behavior aspects of Ni-base self-fluxing coatings. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 147, 012034.	0.6	6
33	Micro-structural and morphological analyses of coated "liquid wood"™ samples by ceramic particles. <i>Materials Research Express</i> , 2019, 6, 085326.	1.6	6
34	Improvements of Arboblend V2 Nature Characteristics through Depositing Thin Ceramic Layers. <i>Polymers</i> , 2021, 13, 3765.	4.5	6
35	Effect of thermal oxidation on electrochemical corrosion behaviour of ZrTi alloys for dental applications. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2015, 66, 1529-1535.	1.5	5
36	Preliminary experimental research on friction characteristics of a thick gravitational casted babbitt layer on steel substrate. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 147, 012028.	0.6	5

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37	Surface Characterization of Fracture in Polylactic Acid vs. PLA + Particle (Cu, Al, Graphene) Insertions by 3D Fused Deposition Modeling Technology. <i>Coatings</i> , 2021, 11, 633.	2.6	5
38	Long Term Evaluation of Biodegradation and Biocompatibility In-Vivo the Mg-0.5Ca-xZr Alloys in Rats. <i>Crystals</i> , 2021, 11, 54.	2.2	5
39	Morphological Analysis of Laser Surface Texturing Effect on AISI 430 Stainless Steel. <i>Materials</i> , 2022, 15, 4580.	2.9	5
40	Experimental investigation on wear resistance of a new cutting fluid using a four ball tribometer – optimization of additive percent. <i>MATEC Web of Conferences</i> , 2017, 112, 07026.	0.2	4
41	The Study of Microstructure of the MgCa Alloys in their Use in Biodegradable Orthopedic Implants. <i>Advanced Materials Research</i> , 2014, 1036, 207-211.	0.3	3
42	Study on structure and properties of CuZn40Pb alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 133, 012015.	0.6	3
43	Sustainable Functionalization of PAN to Improve Tinctorial Capacity. <i>Polymers</i> , 2021, 13, 3665.	4.5	3
44	Evaluation of the Fatigue Behaviour and Failure Mechanisms of 52100 Steel Coated with WIP-C1 (Ni/CrC) by Cold Spray. <i>Materials</i> , 2022, 15, 3609.	2.9	3
45	Comparative <i>In Vitro</i> Study on MgCa Si MgCaSi Alloys, as Biodegradable Implants. <i>Applied Mechanics and Materials</i> , 0, 659, 75-80.	0.2	2
46	Tribological Tests and SEM Analysis for Titanium Oxide Layers. <i>Key Engineering Materials</i> , 2014, 614, 74-79.	0.4	2
47	Wear Resistance and XRD Analyses of CNiCrSiBO Coatings Obtained by Thermal Deposition on OLC45 Substrate. <i>Applied Mechanics and Materials</i> , 2014, 659, 16-21.	0.2	2
48	Influence of Time on Thermal Oxidation of CP-Ti Grade II at 850 °C. <i>Key Engineering Materials</i> , 2014, 614, 35-40.	0.4	2
49	Structural Modification of Ti Based Alloy after Submission to Open Flame Thermal Shock. <i>Key Engineering Materials</i> , 0, 638, 333-338.	0.4	2
50	Study of fatigue behavior of longitudinal welded pipes. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 145, 022032.	0.6	2
51	Microstructural Investigations on Alloy Mg-2Ca-0.2Mn-0.5Zr-1Y. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 209, 012018.	0.6	2
52	Plasma sprayed coatings on crankshaft used steels. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 227, 012077.	0.6	2
53	Analyze of Cutting Effect on Ceramic Coated Steels. <i>Procedia Manufacturing</i> , 2020, 47, 808-811.	1.9	2
54	Quality of pellets produced from agricultural wood residues specific to the Prut river basin. <i>Ukrainian Black Sea Region Agrarian Science</i> , 2021, 109, 84-93.	0.3	2

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55	Polymer-Cement Composites Glazing by Concentrated Solar Energy. <i>Coatings</i> , 2021, 11, 350.	2.6	2
56	The Influence of the Environment for Glass-Reinforced Plastic Composite Material Used for Ground Water Transport Pipes. <i>Materials</i> , 2021, 14, 3160.	2.9	2
57	A Qualitative Assessment of the Specific Woody Biomass of Fruit Trees. <i>Forests</i> , 2022, 13, 405.	2.1	2
58	Wear Resistance and XRD Analyses of CMoCuNiCrSiBO Coatings Obtained by Thermal Deposition on OLC45 Substrate. <i>Applied Mechanics and Materials</i> , 0, 659, 10-15.	0.2	1
59	Influence of the Degree of Cold Drawing on the Microstructure and Properties of Pipes Used for Dampers. <i>Advanced Materials Research</i> , 0, 1036, 134-139.	0.3	1
60	Increased Resistance to Mechanical Shock of Metallic Materials by Metal-Ceramic Surface Coatings. <i>Key Engineering Materials</i> , 2015, 638, 316-321.	0.4	1
61	Comparative XRD and Microstructure Analysis on Biodegradable Mg-Si-Ca Alloys. <i>Key Engineering Materials</i> , 0, 660, 51-56.	0.4	1
62	Effect of the Template on the Textural Properties of the Macrospherical Trimodal Metallosilicate Materials. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2015, 25, 1060-1068.	3.7	1
63	Investigations of Thin Films Obtained by Plasma Jet Method on a Stainless Steel Used in Turbine Blades Construction. <i>Key Engineering Materials</i> , 2017, 750, 85-90.	0.4	1
64	Ti-Mo-Zr-Ta Alloy for Biomedical Applications: Microstructures and Mechanical Properties. <i>Key Engineering Materials</i> , 2017, 750, 184-188.	0.4	1
65	Coating of Liquid Wood Sheets. <i>Materials Science Forum</i> , 2017, 907, 134-139.	0.3	1
66	Surface Characterization of New Biomaterials. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 209, 012022.	0.6	1
67	Some Tribological Aspects of Mg-0.5Ca-xY Biodegradable Materials. <i>Key Engineering Materials</i> , 0, 782, 136-141.	0.4	1
68	Hard meso/macroporous iron oxide/iron silicate microspheres obtained by the multi-templating technique. <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 2888-2898.	3.2	1
69	Experimental EDX analysis of different periodontal splinting systems. <i>Experimental and Therapeutic Medicine</i> , 2021, 22, 1384.	1.8	1
70	The Influence of Zr on Microstructure, Mechanical Properties and Corrosion Resistance in Mg-Y-Zr Biodegradable Alloys. <i>Revista De Chimie (discontinued)</i> , 2019, 69, 3382-3385.	0.4	1
71	Novel Mg-0.5Ca-xMn Biodegradable Alloys Intended for Orthopedic Application: An In Vitro and In Vivo Study. <i>Materials</i> , 2021, 14, 7262.	2.9	1
72	Friction Studies over Idlers Sprayed with Al <sub>2</sub> O <sub>3</sub> Powder Using Atmospheric Plasma Spraying Method. <i>Advanced Materials Research</i> , 0, 1036, 218-222.	0.3	0

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73	A Study on Plastic Deformations due to Contact Fatigue Wear on a Cermet Coating Deposited by Thermal Spraying Methods. Applied Mechanics and Materials, 2014, 659, 34-39.	0.2	0
74	Contact Wear Studies over Idlers Sprayed with Ni Al Si Powder Using Atmospheric Plasma Spraying Method. Advanced Materials Research, 0, 1036, 184-188.	0.3	0
75	Influence of the Degree of Cold Drawing over the Wear Test and XRD Analysis of Pipes Used for Dampers. Applied Mechanics and Materials, 2014, 659, 85-90.	0.2	0
76	Structural and Surface Characterization of some Ceramic Coatings Obtained by Plasma Jet Spraying on Metallic Biomaterials Substrates. Key Engineering Materials, 0, 614, 68-73.	0.4	0
77	Corrosion Behaviour of a Cermet Deposited Coating in Sulfuric Acid Solution. Applied Mechanics and Materials, 2014, 659, 28-33.	0.2	0
78	A comparative study of morphology and composition on oxide nanopowders elaborated by SPVD. IOP Conference Series: Materials Science and Engineering, 2015, 95, 012028.	0.6	0
79	Microstructural analysis and mechanical properties of biodegradable Mg-1.3Ca-5.5Zr alloy. IOP Conference Series: Materials Science and Engineering, 2016, 145, 072003.	0.6	0
80	Improvement of Structural Characteristics for CuZn Alloy through Heat Treatments. Key Engineering Materials, 0, 750, 3-8.	0.4	0
81	Electrochemical characterization of ZnMg-Ca biodegradable alloy. Materials Today: Proceedings, 2019, 19, 1026-1031.	1.8	0
82	Behavior of multilayer materials when exposed to open flame. Materials Today: Proceedings, 2019, 19, 1073-1080.	1.8	0
83	Nondestructive Evaluation of Biodegradable Magnesium Alloys. , 2020, , .		0
84	MACROSPHERICAL POROUS METALLOSILICATE MATERIALS: CHARACTERIZATION AND APPLICATIONS. Environmental Engineering and Management Journal, 2020, 19, 195-204.	0.6	0