Ioan Bica

List of Publications by Year
in descending order

104 papers	1,997 citations	236912 25 h-index	276858 41 g-index
105 all docs	105 docs citations	105 times ranked	854 citing authors

#	Article	IF	Citations
1	Electrical devices based on hybrid membranes with mechanically and magnetically controllable, resistive, capacitive and piezoelectric properties. Smart Materials and Structures, 2022, 31, 045001.	3.5	7
2	Effects of electric and magnetic fields on dielectric and elastic properties of membranes composed of cotton fabric and carbonyl iron microparticles. Results in Physics, 2022, 35, 105332.	4.1	7
3	Magnetic Field Effects Induced in Electrical Devices Based on Cotton Fiber Composites, Carbonyl Iron Microparticles and Barium Titanate Nanoparticles. Nanomaterials, 2022, 12, 888.	4.1	6
4	Magneto-dielectric and viscoelastic characteristics of iron oxide microfiber-based magnetoreological suspension. Journal of Industrial and Engineering Chemistry, 2022, 112, 58-66.	5.8	5
5	Magneto-Dielectric Effects in Polyurethane Sponge Modified with Carbonyl Iron for Applications in Low-Cost Magnetic Sensors. Polymers, 2022, 14, 2062.	4.5	3
6	Composite Materials Based on Polymeric Fibers Doped with Magnetic Nanoparticles: Synthesis, Properties and Applications. Nanomaterials, 2022, 12, 2240.	4.1	2
7	Combined in-situ and Persistent Scatterers Interferometry Synthetic Aperture Radar (PSInSAR) monitoring of land surface deformation in urban environments - case study: tunnelling works in Bucharest (Romania). International Journal of Remote Sensing, 2021, 42, 2641-2662.	2.9	2
8	Physical Mechanisms of Magnetic Field Effects on the Dielectric Function of Hybrid Magnetorheological Suspensions. Materials, 2021, 14, 6498.	2.9	4
9	Magneto-active fabrics based on glucose and carbonyl iron: Effects of glucose crystallization kinetics and magnetic field on the electrical conductivity. Journal of Magnetism and Magnetic Materials, 2020, 495, 165883.	2.3	2
10	Electrical and Magnetodielectric Properties of Magneto-Active Fabrics for Electromagnetic Shielding and Health Monitoring. International Journal of Molecular Sciences, 2020, 21, 4785.	4.1	8
11	Hybrid Magnetorheological Composites for Electric and Magnetic Field Sensors and Transducers. Nanomaterials, 2020, 10, 2060.	4.1	13
12	Graphene Platelets-Based Magnetoactive Materials with Tunable Magnetoelectric and Magnetodielectric Properties. Nanomaterials, 2020, 10, 1783.	4.1	6
13	Light transmission, magnetodielectric and magnetoresistive effects in membranes based on hybrid magnetorheological suspensions in a static magnetic field superimposed on a low/medium frequency electric field. Journal of Magnetism and Magnetic Materials, 2020, 511, 166975.	2.3	9
14	Microwave-assisted synthesis and characterization of iron oxide microfibers. Journal of Materials Chemistry C, 2020, 8, 6159-6167.	5.5	13
15	Magneto-optical transmittance observed in magnetorheological suspensions films. AIP Conference Proceedings, 2020, , .	0.4	0
16	Methodology and calculation model for recycling of composite construction products. E3S Web of Conferences, 2019, 85, 07016.	0.5	3
17	Magnetorheological Hybrid Elastomers Based on Silicone Rubber and Magnetorheological Suspensions with Graphene Nanoparticles: Effects of the Magnetic Field on the Relative Dielectric Permittivity and Electric Conductivity. International Journal of Molecular Sciences, 2019, 20, 4201.	4.1	14
18	Magnetostrictive and viscoelastic characteristics of polyurethane-based magnetorheological elastomer. Journal of Industrial and Engineering Chemistry, 2019, 73, 128-133.	5.8	24

#	Article	IF	Citations
19	Magnetodielectric effects in hybrid magnetorheological suspensions based on beekeeping products. Journal of Industrial and Engineering Chemistry, 2019, 77, 385-392.	5.8	11
20	Magnetodielectric Effects in Magnetorheological Elastomers Based on Polymer Fabric, Silicone Rubber, and Magnetorheological Suspension. Advances in Polymer Technology, 2019, 2019, 1-5.	1.7	11
21	A semi-analytical solution for groundwater flow-field delineation near pumping/injection wells in confined aquifers. Hydrogeology Journal, 2019, 27, 61-71.	2.1	2
22	Magnetic flux density effect on electrical properties and visco-elastic state of magnetoactive tissues. Composites Part B: Engineering, 2019, 159, 13-19.	12.0	19
23	Magnetorheological gel-based magnetoresistor: Effects of a static and a periodic time-varying magnetic field on the electrical resistance. Journal of Physics: Conference Series, 2019, 1391, 012091.	0.4	0
24	Magnetic field intensity effect on electrical conductivity of magnetorheological biosuspensions based on honey, turmeric and carbonyl iron. Journal of Industrial and Engineering Chemistry, 2018, 64, 276-283.	5.8	25
25	Magnetorheological bio-suspensions membranes: Influence of magnetic flux density on the electrical conductivity and relative dielectric permittivity. Journal of Physics: Conference Series, 2018, 1141, 012096.	0.4	0
26	Magnetic field intensity and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mi>Î³</mml:mi><mml:mo>-</mml:mo><mml:msub><mml:mrow><mml:mi mathvariant="italic">Fe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mro concentration effects on the dielectric properties of magnetodielectric tissues. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2018, 236-237, 125-131.	3.5	14
27	Hybrid magnetorheological suspension: effects of magnetic field on the relative dielectric permittivity and viscosity. Colloid and Polymer Science, 2018, 296, 1373-1378.	2.1	6
28	Effect of magnetic field intensity and Î³-Fe₂O₃ nanoparticle additive on electrical conductivity and viscosity of magnetorheological carbonyl iron suspension-based membranes. Smart Materials and Structures, 2018, 27, 095021.	3.5	13
29	Studies of Electroconductive Magnetorheological Elastomers. , 2018, , .		1
30	Magnetodielectric effects in membranes based on magnetorheologicalÂbio-suspensions. Materials and Design, 2018, 155, 317-324.	7.0	26
31	USING GREEN INFRASTRUCTURE AND URBAN PLANNING IN FLOOD MITIGATION. , 2018, , .		1
32	Hybrid Magnetorheological Elastomers: Effects of the magnetic field on some electrical properties. Applied Surface Science, 2017, 424, 282-289.	6.1	13
33	Silicone rubber based magnetorheological elastomer: magnetic structure tested by means of neutron depolarization and magnetic force microscopy methods. Journal of Physics: Conference Series, 2017, 848, 012016.	0.4	3
34	Magnetic field intensity and graphene concentration effects on electrical and rheological properties of MREs-based membranes. Smart Materials and Structures, 2017, 26, 105038.	3.5	14
35	Magnetic field intensity effect on plane capacitors based on hybrid magnetorheological elastomers with graphene nanoparticles. Journal of Industrial and Engineering Chemistry, 2017, 56, 407-412.	5.8	38
36	The implicit effect of texturizing field on the elastic properties of magnetic elastomers revealed by SANS. Journal of Magnetism and Magnetic Materials, 2017, 431, 126-129.	2.3	6

#	Article	IF	Citations
37	Dewatering system of a deep of excavation in urban area â€“ Bucharest case study. Procedia Engineering, 2017, 209, 210-215.	1.2	8
38	Magnetodielectric membranes: Effects of the magnetic field on the dielectric loss tangent. AIP Conference Proceedings, 2017, , .	0.4	0
39	MECHANICAL RECYCLING: SOLUTIONS FOR GLASS FIBRE REINFORCED COMPOSITES. , 2017, , .		2
40	COMPARATIVE ANALYSIS OF SOLUTIONS FOR EXECUTION DEEP EXCAVATIONS. , 2017, , .		0
41	PUMPING TEST FOR GROUNDWATER AQUIFERS IN URBAN AREA BUCHAREST CASE STUDY. , 2017, , .		0
42	Magnetorheological elastomer based on silicone rubber, carbonyl iron and Rochelle salt: Effects of alternating electric and static magnetic fields intensities. Journal of Industrial and Engineering Chemistry, 2016, 37, 312-318.	5.8	41
43	Composite magnetorheological elastomers as dielectrics for plane capacitors: Effects of magnetic field intensity. Results in Physics, 2016, 6, 199-202.	4.1	31
44	Influence of magnetic field on dispersion and dissipation of electric field of low and medium frequencies in hybrid magnetorheological suspensions. Journal of Industrial and Engineering Chemistry, 2015, 27, 334-340.	5.8	20
45	A hydrogeological conceptual approach to study urban groundwater flow in Bucharest city, Romania. Hydrogeology Journal, 2015, 23, 437-450.	2.1	30
46	Tensions and deformations in composites based on polyurethane elastomer and magnetorheological suspension: Effects of the magnetic field. Journal of Industrial and Engineering Chemistry, 2015, 28, 86-90.	5.8	40
47	Magnetodielectric effects in composite materials based on paraffin, carbonyl iron and graphene. Journal of Industrial and Engineering Chemistry, 2015, 21, 1323-1327.	5.8	34
48	Magnetodielectric effects in hybrid magnetorheological suspensions. Journal of Industrial and Engineering Chemistry, 2015, 22, 53-62.	5.8	28
49	GENERAL ASPECTS ON URBAN HYDROGEOLOGY AND HIGHLIGHTS FROM BUCHAREST (ROMANIA). Environmental Engineering and Management Journal, 2015, 14, 1279-1285.	0.6	5
50	Hybrid magnetorheological elastomer: Influence of magnetic field and compression pressure on its electrical conductivity. Journal of Industrial and Engineering Chemistry, 2014, 20, 3994-3999.	5.8	101
51	Investigation of Surface Properties of Magnetorheological Elastomers by Atomic Force Microscopy. Journal of Superconductivity and Novel Magnetism, 2013, 26, 785-792.	1.8	21
52	Physical characteristics of magnetorheological suspensions and their applications. Journal of Industrial and Engineering Chemistry, 2013, 19, 394-406.	5.8	166
53	New procedures to estimate soil erodibility properties from a hole erosion test record. Periodica Polytechnica: Civil Engineering, 2013, 57, 77.	0.6	1
54	3D GEOLOGICAL MODEL OF BUCHAREST CITY QUATERNARY DEPOSITS. , 2013, , .		8

#	Article	IF	Citations
55	HYDRAULIC CHARACTERIZING OF TUNNELS BARRIERï¿½S EFFECT FOR GROUNDWATER FLOW MODELING-APPLICATION FOR BUCHAREST CITY. , 2013, , .		3
56	NUMERICAL PARAMETRICAL STUDY ON THE BARRIER EFFECT IN UNCONFINED AQUIFERS. , 2013, , .		2
57	HUMAN HEALTH RISK OF CONTAMINATION BY POLYCHLORINATED BIPHENYLS IN THE AREA OF BUCHAREST CITY. , 2013, , .		0
58	SANS investigation of a ferrofluid based silicone elastomer microstructure. Journal of Physics: Conference Series, 2012, 351, 012014.	0.4	3
59	The influence of the magnetic field on the elastic properties of anisotropic magnetorheological elastomers. Journal of Industrial and Engineering Chemistry, 2012, 18, 1666-1669.	5.8	78
60	Magnetic field intensity effect on plane electric capacitor characteristics and viscoelasticity of magnetorheological elastomer. Colloid and Polymer Science, 2012, 290, 1115-1122.	2.1	80
61	The influence of hydrostatic pressure and transverse magnetic field on the electric conductivity of the magnetorheological elastomers. Journal of Industrial and Engineering Chemistry, 2012, 18, 483-486.	5.8	46
62	Cavitational Iron Microparticles Generation By Plasma Procedures For Medical Applications. Annals of West University of Timisoara: Physics, 2012, 56, 9-14.	0.2	0
63	Magnetic field and particle concentration competitive effects on ferrofluid based silicone elastomer microstructure. Crystallography Reports, 2011, 56, 1177-1180.	0.6	10
64	Magnetoresistor sensor with magnetorheological elastomers. Journal of Industrial and Engineering Chemistry, 2011, 17, 83-89.	5.8	82
65	Microstructure of stomaflex based magnetic elastomers. Physics of the Solid State, 2010, 52, 917-921.	0.6	23
66	Influence of the magnetic field on the electric conductivity of magnetorheological elastomers. Journal of Industrial and Engineering Chemistry, 2010, 16, 359-363.	5.8	55
67	Magnetorheological elastomer-based quadrupolar element of electric circuits. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 166, 94-98.	3.5	35
68	Electric Magnetic Circuit Active Elements Based on Magnetorheological Elastomers. , 2010, , .		0
69	Influence of the transverse magnetic field intensity upon the electric resistance of the magnetorheological elastomer containing graphite microparticles. Materials Letters, 2009, 63, 2230-2232.	2.6	86
70	Compressibility modulus and principal deformations in magneto-rheological elastomer: The effect of the magnetic field. Journal of Industrial and Engineering Chemistry, 2009, 15, 773-776.	5.8	27
71	Electroconductive Magnetorheological Suspensions: Production and Physical Processes. Journal of Industrial and Engineering Chemistry, 2009, 15, 233-237.	5.8	17
72	Steady current plasma macro-nanotechnologies. Journal of Industrial and Engineering Chemistry, 2009, 15, 304-315.	5.8	10

#	Article	IF	Citations
73	Production of magnetizable microparticles from metallurgic slag in argon plasma jet. Journal of Industrial and Engineering Chemistry, 2009, 15, 423-429.	5.8	2
74	Some mechanisms concerning the electrical conductivity of magnetorheological suspensions in magnetic field. Journal of Industrial and Engineering Chemistry, 2009, 15, 573-577.	5.8	30
75	Influence of magnetic field upon the electric capacity of a flat capacitor having magnetorheological elastomer as a dielectric. Journal of Industrial and Engineering Chemistry, 2009, 15, 605-609.	5.8	43
76	Quadrupolar magnetoresistor based on electroconductive magnetorheological elastomer. Journal of Industrial and Engineering Chemistry, 2009, 15, 769-772.	5.8	13
77	Interplays between Mesoscopic Josephson Junctions and the Harper Equation. Acta Physica Polonica A, 2009, 116, 486-488.	0.5	0
78	Production of iron nanotubes in plasma. Journal of Industrial and Engineering Chemistry, 2008, 14, 230-235.	5.8	10
79	PREPARATION AND ELECTRO-THERMOCONDUCTIVE CHARACTERISTICS OF MAGNETORHEOLOGICAL SUSPENSIONS. International Journal of Modern Physics B, 2008, 22, 5041-5064.	2.0	68
80	Electroconductive magnetorheological suspensions. Smart Materials and Structures, 2006, 15, N147-N151.	3.5	23
81	The influence of temperature and of a longitudinal magnetic field upon the electrical conductivity of magnetorheological suspensions. Physica B: Condensed Matter, 2006, 371, 145-148.	2.7	16
82	The influence of the magnetic field on the electrical magnetoresistance of magnetorheological suspensions. Journal of Magnetism and Magnetic Materials, 2006, 299, 412-418.	2.3	35
83	Pore formation in iron micro-spheres by plasma procedure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 393, 191-195.	5.6	8
84	Formation of Iron Macro-Spheres in Plasma. Plasma Chemistry and Plasma Processing, 2005, 25, 121-135.	2.4	7
85	Some mechanisms for the formation of octopus-shaped iron micro-particles. Journal of Magnetism and Magnetic Materials, 2004, 279, 289-298.	2.3	8
86	Magnetorheological suspension based on mineral oil, iron and graphite micro-particles. Journal of Magnetism and Magnetic Materials, 2004, 283, 335-343.	2.3	30
87	Formation of iron micro-tubes in plasma. Journal of Magnetism and Magnetic Materials, 2004, 270, 7-14.	2.3	7
88	Magnetorheological suspension electromagnetic brake. Journal of Magnetism and Magnetic Materials, 2004, 270, 321-326.	2.3	46
89	Some Mechanisms of SiO2 Micro-tubes Formation in Plasma Jet. Plasma Chemistry and Plasma Processing, 2003, 23, 175-182.	2.4	3
90	On the mechanisms of iron microspheres formation in argon plasma jet. Journal of Magnetism and Magnetic Materials, 2003, 257, 119-125.	2.3	11

#	Article	IF	Citations
91	The obtaining of magneto-rheological suspensions based on silicon oil and iron particles. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 98, 89-93.	3.5	25
92	Damper with magnetorheological suspension. Journal of Magnetism and Magnetic Materials, 2002, 241, 196-200.	2.3	75
93	Iron micro-spheres generation in argon plasma jet. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 88, 107-109.	3.5	7
94	Obtaining of SiO2 micro-tubes in plasma jet. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 86, 265-268.	3.5	0
95	Obtaining SiO2 particles in argon plasma jet. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 86, 269-271.	3.5	0
96	Formation of glass microspheres with rotating electrical arc. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 77, 210-212.	3.5	24
97	Obtaining of micro-spheres in plasma: theoretical model. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 77, 293-296.	3.5	3
98	The use of rotating electric are for spherical particle production. Revista De Metalurgia, 2000, 36, 287-291.	0.5	3
99	Nanoparticle production by plasma. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 68, 5-9.	3.5	49
100	Plasma device for magnetic nanoparticles production. Journal of Magnetism and Magnetic Materials, 1999, 201, 45-48.	2.3	5
101	Device for nanoparticle production using plasma methods. Revista De Metalurgia, 1999, 35, 126-130.	0.5	3
102	Physical methods in obtaining the ultrafine powders for magnetic fluids preparation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1996, 40, 5-9.	3.5	7
103	Obtaining iron and graphite nanoparticles in argon plasma. Revista De Metalurgia, 1996, 32, 298-302.	0.5	2
104	Anisotropic Silicone Rubber Based Magnetorheological Elastomer with Oil Silicone and Iron Microparticles. Solid State Phenomena, 0, 190, 645-648.	0.3	10