Mikhail Shamonin

List of Publications by Year
in descending order

91	1,750	257429 24	315719 38
papers	citations	h-index	g-index

91	91	91	1199
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Laser Micromachining of Magnetoactive Elastomers as Enabling Technology for Magnetoresponsive Surfaces. Advanced Materials Technologies, 2022, 7, 2101045.	5.8	12
2	Resonant Magnetoelectric Effect at Low Frequencies in Layered Polymeric Cantilevers Containing a Magnetoactive Elastomer. Applied Sciences (Switzerland), 2022, 12, 2102.	2.5	4
3	Magnetically Switchable Adhesion and Friction of Soft Magnetoactive Elastomers. Advanced Engineering Materials, 2022, 24, .	3.5	8
4	Multiferroic Cantilevers Containing a Magnetoactive Elastomer: Magnetoelectric Response to Low-Frequency Magnetic Fields of Triangular and Sinusoidal Waveform. Sensors, 2022, 22, 3791.	3.8	6
5	Effect of magnetic-field-induced restructuring on the elastic properties of magnetoactive elastomers. Journal of Magnetism and Magnetic Materials, 2021, 517, 167392.	2.3	7
6	Effects of ferromagnetic-material thickness on magnetoelectric voltage transformation in a multiferroic heterostructure. Smart Materials and Structures, 2021, 30, 067002.	3.5	3
7	Tunable Drop Splashing on Magnetoactive Elastomers. Advanced Materials Interfaces, 2021, 8, 2100235.	3.7	9
8	Feasibility of Probing the Filler Restructuring in Magnetoactive Elastomers by Ultra-Small-Angle Neutron Scattering. Applied Sciences (Switzerland), 2021, 11, 4470.	2.5	4
9	Magnetoelectric Response of Laminated Cantilevers Comprising a Magnetoactive Elastomer and a Piezoelectric Polymer, in Pulsed Uniform Magnetic Fields. Sensors, 2021, 21, 6390.	3.8	11
10	Isotropic inertia tensor without symmetry of mass distribution. American Journal of Physics, 2021, 89, 916-920.	0.7	0
11	Reconfigurable Surface Micropatterns Based on the Magnetic Field-Induced Shape Memory Effect in Magnetoactive Elastomers. Polymers, 2021, 13, 4422.	4.5	5
12	Giant Extensional Strain of Magnetoactive Elastomeric Cylinders in Uniform Magnetic Fields. Materials, 2020, 13, 3297.	2.9	31
13	Induced anisotropy in composite materials with reconfigurable microstructure: Effective medium model with movable percolation threshold. Physica A: Statistical Mechanics and Its Applications, 2020, 560, 125170.	2.6	6
14	Ceramic-Heterostructure-Based Magnetoelectric Voltage Transformer with an Adjustable Transformation Ratio. Materials, 2020, 13, 3981.	2.9	5
15	Magnetic-field-induced stress in confined magnetoactive elastomers. Soft Matter, 2020, 16, 9047-9058.	2.7	13
16	Large Wiedemann effect in a magnetoactive elastomer. Journal of Magnetism and Magnetic Materials, 2020, 511, 166969.	2.3	3
17	Effective Medium Theory for the Elastic Properties of Composite Materials with Various Percolation Thresholds. Materials, 2020, 13, 1243.	2.9	12
18	Anisotropic Magnetoelectric Effect in a Planar Heterostructure Comprising Piezoelectric Ceramics and Magnetostrictive Fibrous Composite. Materials, 2019, 12, 3228.	2.9	6

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19	Theoretical method for calculation of effective properties of composite materials with reconfigurable microstructure: Electric and magnetic phenomena. Physica A: Statistical Mechanics and Its Applications, 2019, 535, 122467.	2.6	20
20	Measurement system and dataset for in-depth analysis of appliance energy consumption in industrial environment. TM Technisches Messen, 2019, 86, 1-13.	0.7	14
21	Magnetodielectric Response of Soft Magnetoactive Elastomers: Effects of Filler Concentration and Measurement Frequency. International Journal of Molecular Sciences, 2019, 20, 2230.	4.1	18
22	Effect of Material Composition on Tunable Surface Roughness of Magnetoactive Elastomers. Polymers, 2019, 11, 594.	4.5	22
23	Magnetic anisotropy in magnetoactive elastomers, enabled by matrix elasticity. Polymer, 2019, 162, 63-72.	3.8	27
24	Temperature blocking and magnetization of magnetoactive elastomers. Journal of Magnetism and Magnetic Materials, 2019, 471, 464-467.	2.3	7
25	Method of Measuring Deformations of Magnetoactive Elastomers under the Action of Magnetic Fields. Russian Technological Journal, 2019, 7, 81-91.	1.0	5
26	Tunable surface roughness and wettability of a soft magnetoactive elastomer. Journal of Applied Polymer Science, 2018, 135, 46221.	2.6	32
27	Temperature-dependent magnetic properties of a magnetoactive elastomer: Immobilization of the soft-magnetic filler. Journal of Applied Physics, 2018, 123, .	2.5	26
28	Renormalization of the critical exponent for the shear modulus of magnetoactive elastomers. Scientific Reports, 2018, 8, 4397.	3.3	2
29	Field emission current investigation of p-type and metallized silicon emitters in the frequency domain. , 2018, , .		1
30	Highly Responsive Magnetoactive Elastomers. , 2018, , 221-245.		30
31	State-of-Charge Monitoring by Impedance Spectroscopy during Long-Term Self-Discharge of Supercapacitors and Lithium-Ion Batteries. Batteries, 2018, 4, 35.	4.5	37
32	Magnetorheological behavior of magnetoactive elastomers filled with bimodal iron and magnetite particles. Smart Materials and Structures, 2017, 26, 035019.	3.5	20
33	Low-frequency, broadband vibration energy harvester using coupled oscillators and frequency up-conversion by mechanical stoppers. Smart Materials and Structures, 2017, 26, 065021.	3.5	46
34	Effect of single-particle magnetostriction on the shear modulus of compliant magnetoactive elastomers. Physical Review E, 2017, 95, 032503.	2.1	16
35	Magnetodielectric effect in magnetoactive elastomers: Transient response and hysteresis. Polymer, 2017, 127, 119-128.	3.8	49
36	Magnetorheological response of highly filled magnetoactive elastomers from perspective of mechanical energy density: Fractal aggregates above the nanometer scale?. Physical Review E, 2017, 95, 062501.	2.1	35

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37	Bandwidth Widening of Piezoelectric Cantilever Beam Arrays by Mass-Tip Tuning for Low-Frequency Vibration Energy Harvesting. Applied Sciences (Switzerland), 2017, 7, 1324.	2.5	40
38	Temperature Dependence of the Resonant Magnetoelectric Effect in Layered Heterostructures. Materials, 2017, 10, 1183.	2.9	14
39	Automated system for measuring the surface dilational modulus of liquidâ€“air interfaces. Measurement Science and Technology, 2016, 27, 065301.	2.6	4
40	DC magnetic field sensing based on the nonlinear magnetoelectric effect in magnetic heterostructures. Journal Physics D: Applied Physics, 2016, 49, 375002.	2.8	42
41	Single-particle mechanism of magnetostriction in magnetoactive elastomers. Physical Review E, 2016, 93, 062503.	2.1	11
42	Transient magnetorheological response of magnetoactive elastomers to step and pyramid excitations. Soft Matter, 2016, 12, 2901-2913.	2.7	38
43	Analysis of learning improvement on changing lab course from single experiments to projects. International Journal of Electrical Engineering and Education, 2015, 52, 287-297.	0.8	8
44	Hysteresis of the viscoelastic properties and the normal force in magnetically and mechanically soft magnetoactive elastomers: Effects of filler composition, strain amplitude and magnetic field. Polymer, 2015, 76, 191-202.	3.8	108
45	Abstandsensorsystem basierend auf dem Prinzip der optischen Reflektion fÃ¼r Anwendungen im Bereich WeiÃŸe Ware: IntensitÃtsreferenzierung und Linearisierung des Ausgnagssignals. TM Technisches Messen, 2014, 81, 62-69.	0.7	0
46	Experimental study of the magnetic field enhanced Payne effect in magnetorheological elastomers. Soft Matter, 2014, 10, 8765-8776.	2.7	141
47	Evaluation of highly compliant magnetoâ€active elastomers with colossal magnetorheological response. Journal of Applied Polymer Science, 2014, 131, .	2.6	81
48	Patterning of ultrasoft, agglutinative magnetorheological elastomers. Journal of Applied Polymer Science, 2013, 128, 2508-2515.	2.6	18
49	Ultra-Soft PDMS-Based Magnetoactive Elastomers as Dynamic Cell Culture Substrata. PLoS ONE, 2013, 8, e76196.	2.5	46
50	Nonlinear Magnetoelectric Response of Planar Ferromagnetic-Piezoelectric Structures to Sub-Millisecond Magnetic Pulses. Sensors, 2012, 12, 14821-14837.	3.8	12
51	Magnetoelectric characteristics of cobalt-iron alloyâ€“lead zirconate titanate bilayer planar structures. International Journal of Materials Research, 2012, 103, 1345-1350.	0.3	5
52	Observation of nonlinear magnetoelectric response to magnetic pulses in layered magnetostrictive-piezoelectric structures. , 2012, , .		2
53	Compensation of parasitic losses in an extrinsic fiber-optic temperature sensor based on intensity measurement. Sensors and Actuators A: Physical, 2012, 173, 49-54.	4.1	1
54	Intensity referencing in an extrinsic optical fiber temperature sensor. Procedia Engineering, 2010, 5, 1095-1098.	1.2	2

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55	Herstellung und Charakterisierung eines extrinsischen faseroptischen Elementarsensors zur Temperaturmessung Manufacture and Characterization of an Extrinsic Elementary Fiber-Optical Sensor for Temperature Measurement. TM Technisches Messen, 2008, 75, 565-570.	0.7	2
56	Experimental study of a bi-periodic magnetoinductive waveguide: comparison with theory. IET Microwaves, Antennas and Propagation, 2007, 1, 80.	1.4	22
57	Mechanism of subwavelength imaging with bilayered magnetic metamaterials: Theory and experiment. Journal of Applied Physics, 2007, 101, 073903.	2.5	47
58	Transmission properties of two shifted magnetoinductive waveguides. Microwave and Optical Technology Letters, 2007, 49, 1054-1058.	1.4	13
59	An experimental study of the properties of magnetoinductive waves in the presence of retardation. Journal of Magnetism and Magnetic Materials, 2006, 300, 29-32.	2.3	28
60	Tailoring the near-field guiding properties of magnetic metamaterials with two resonant elements per unit cell. Physical Review B, 2006, 73, .	3.2	58
61	Resonant frequencies of a split-ring resonator: Analytical solutions and numerical simulations. Microwave and Optical Technology Letters, 2005, 44, 133-136.	1.4	67
62	Resonant frequencies of a combination of split rings: Experimental, analytical and numerical study. Microwave and Optical Technology Letters, 2005, 46, 473-476.	1.4	45
63	Application of Magnetic Garnet Films for Magnetooptical Imaging of Magnetic Field Distributions. Materials Research Society Symposia Proceedings, 2004, 834, 18.	0.1	2
64	Effective magnetic permeability of ferromagnetic composites. Theoretical description and comparison with experiment. NDT and E International, 2004, 37, 35-40.	3.7	9
65	Preparation and Characterization of Sensitive Magnetic Garnet Films for MOI Applications. , 2004, , 329-336.		0
66	Optimization of Magnetic Garnet Films for Magneto-Optical Imaging of Magnetic Field Distributions. , 2004, , 301-309.		1
67	Properties of a metamaterial element: Analytical solutions and numerical simulations for a singly split double ring. Journal of Applied Physics, 2004, 95, 3778-3784.	2.5	85
68	Calculation of magnetic leakage field from a surface defect in a linear ferromagnetic material: an analytical approach. NDT and E International, 2003, 36, 51-55.	3.7	22
69	Characterization and optimization of magnetic garnet films for magneto-optical visualization of magnetic field distributions. NDT and E International, 2003, 36, 375-381.	3.7	20
70	Polarization properties of light-induced scattering in Bi_12TiO_20 crystals: theory and experiment for diagonal geometry. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 677.	2.1	2
71	Sensitive magneto-optical sensors for visualization of magnetic fields using garnet films of specific orientations. Journal of Applied Physics, 2002, 92, 6484-6488.	2.5	32
72	Magneto-optical visualization of metal-loss defects in a ferromagnetic plate: experimental verification of theoretical modeling. Applied Optics, 2001, 40, 3182.	2.1	23

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73	Feasibility of magneto-optic flaw visualization using thin garnet films. NDT and E International, 2000, 33, 547-553.	3.7	14
74	Radiatively Coupled Waveguide Concept for an Integrated Magneto-Optic Circulator. Materials Research Society Symposia Proceedings, 1998, 517, 519.	0.1	5
75	Analysis of power-dependent switching between radiatively coupled planar waveguides. Journal of Lightwave Technology, 1997, 15, 983-989.	4.6	8
76	Directional coupler based on radiatively coupled waveguides. Applied Optics, 1997, 36, 635.	2.1	7
77	Boundary conditions for the finite difference beam propagation method based on plane wave solutions of the Fresnel equation. IEEE Journal of Quantum Electronics, 1997, 33, 279-286.	1.9	1
78	Radiatively coupled magneto-optic waveguides. , 1996, 2695, 355.		2
79	Magneto-optic waveguides: modeling and applications. , 1996, , .		1
80	Optimization of a nonreciprocal phase shifter comprising a magneto-optic slab waveguide. Optics Communications, 1996, 131, 37-40.	2.1	4
81	Applications of Magnetic Garnet Films in Optical Communication. , 1996, , 411-465.		0
82	Analysis of nonreciprocal phase shifters for integrated optics by the Galerkin method. Optical Engineering, 1995, 34, 849.	1.0	10
83	Subharmonic instabilities in photorefractive crystals for an applied alternating electric field: theoretical analysis. Journal of the Optical Society of America B: Optical Physics, 1994, 11, 132.	2.1	10
84	Analysis of nonreciprocal mode propagation in magneto-optic rib-waveguide structures with the spectral-index method. Applied Optics, 1994, 33, 6415.	2.1	18
85	<title>Design of nonreciprocal couplers for integrated optics</title>. , 1994, 2150, 183.		4
86	<title>Analysis of nonreciprocal mode propagation in magneto-optic ridge waveguide structures</title>. , 1994, , .		0
87	Finite difference analysis of gyrotropic waveguides. Optics Communications, 1993, 102, 25-30.	2.1	26
88	Theory of spatial subharmonic instability under hologram recording in a photorefractive crystal with applied AC field. Applied Physics A: Solids and Surfaces, 1993, 57, 153-156.	1.4	3
89	Soliton-shaped nonlinear waves of space charge in photorefractive materials. Applied Physics A: Solids and Surfaces, 1993, 56, 467-468.	1.4	4
90	A note on the analysis of nonreciprocal phase shifters by the spectral index method. Microwave and Optical Technology Letters, 1993, 6, 790-792.	1.4	4

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91	Spatial subharmonics in photorefractive Bi12SiO20crystal with a square wave applied field. Applied Physics Letters, 1993, 62, 328-330.	3.3	26