

# Mikhail Zagrebin

## List of Publications by Year in descending order

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papers

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933447

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all docs

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docs citations

99  
times ranked

561  
citing authors

#	ARTICLE	IF	CITATIONS
1	First principles investigation of chemical and structural disorder in magnetic Ni <sub>2</sub> MnSn alloys. Journal of Applied Physics, 2016, 119, 124101.	3.2	111
2	Electronic and magnetic properties of the Co <sub>2</sub> -based Heusler compounds under pressure: first-principles and Monte Carlo studies. Journal Physics D: Applied Physics, 2016, 49, 355004.	2.8	41
3	Phase diagram of magnetostrictive Fe-Ga alloys: insights from theory and experiment. Phase Transitions, 2019, 92, 101-116.	1.3	33
4	Correlation effects on ground-state properties of ternary Heusler alloys: First-principles study. Physical Review B, 2019, 99, .	3.2	28
5	Coulomb correlation in noncollinear antiferromagnetic Ni <sub>2</sub> Mn. Physical Review B, 2020, 101, .	3.2	27
6	Effects of magnetic and structural phase transitions on the normal and anomalous Hall effects in Ni-Mn-In-B Heusler alloys. Physical Review B, 2020, 101, .	3.2	24
7	First principles investigation of structural and magnetic properties of Ni <sub>2</sub> CoMnIn Heusler alloys. Journal Physics D: Applied Physics, 2015, 48, 164005.	2.8	18
8	Effect of structural disorder on the ground state properties of Co <sub>2</sub> CrAl Heusler alloy. Physica B: Condensed Matter, 2017, 519, 82-89.	2.7	16
9	Novel Achievements in the Research Field of Multifunctional Shape Memory Ni-Mn-In and Ni-Mn-In-Z Heusler Alloys. Materials Science Foundations, 0, 81-82, 38-76.	0.2	15
10	Electronic structure beyond the generalized gradient approximation for Ni <sub>2</sub> MnSn. Physical Review B, 2020, 102, .	2.2	13
11	Phase transitions in Ni <sub>2</sub> MnGa alloys with the account of crystal lattice modulation. Journal of Magnetism and Magnetic Materials, 2007, 316, e591-e594.	2.3	12
12	Ab initio calculations of structural and magnetic properties of Ni-Co-Mn-Cr-Sn supercell. Intermetallics, 2017, 87, 55-60.	3.9	11
13	Magnetic states of Ni <sub>2</sub> MnZ and Ni <sub>2</sub> CrZ (Z = Al, As, Bi, Ga, Ge, In, P, Pb, Sb, Si, Sn, Tl) Heusler alloys. Journal of Magnetism and Magnetic Materials, 2018, 459, 78-83.	2.3	11
14	First-principles and Monte Carlo studies of the Ni <sub>2</sub> (Mn,Cr)Ga Heusler alloys electronic and magnetic properties. Materials Research Express, 2017, 4, 026105.	1.6	10
15	Ternary diagrams of magnetic properties of Ni-Mn-Ga Heusler alloys from ab initio and Monte Carlo studies. Journal of Magnetism and Magnetic Materials, 2019, 470, 64-68.	2.3	10
16	Exchange-correlation corrections for electronic properties of half-metallic Co <sub>2</sub> FeSi and nonmagnetic semiconductor CoFeTiAl. Journal of Applied Physics, 2020, 127, .	2.5	10
17	Phase diagrams of Heusler alloys with inversion of the exchange interaction. JETP Letters, 2007, 85, 560-564.	1.4	9
18	Magnetocaloric effect in Ni-Co-Mn-(Sn, Al) Heusler alloys: Theoretical study. Journal of Magnetism and Magnetic Materials, 2018, 459, 295-300.	2.3	9

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19	Ab initio study of magnetic and structural properties of Fe-Ga alloys. EPJ Web of Conferences, 2018, 185, 04013.	0.3	9
20	Structural and Magnetic Properties of $Mn_2NiZ$ ( $Z = Ga, In, Sn, Sb$ ) Heusler Alloys from <i>Ab Initio</i> Calculations. Solid State Phenomena, 2015, 233-234, 229-232.	0.3	8
21	Magnetic properties and martensitic transformation of $NiMnGe$ Heusler alloys from first-principles and Monte Carlo studies. Journal Physics D: Applied Physics, 2017, 50, 195001.	2.8	8
22	Ab Initio Study of the Structural, Magnetic, Electronic, and Thermodynamic Properties of $Pd_2MnZ$ ( $Z = Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ga, In, Sn, Sb$ ). Solid State Phenomena, 2015, 233-234, 229-232.	0.6	8
23	Magnetic properties of $Fe_{100-x}Ga_x$ : Ab initio and Monte Carlo study. Journal of Magnetism and Magnetic Materials, 2019, 470, 118-122.	2.3	8
24	Prediction of giant magnetocaloric effect in $Ni_{40}Co_{10}Mn_{36}Al_{14}$ Heusler alloys: An insight from ab initio and Monte Carlo calculations. Journal of Applied Physics, 2020, 127, 163901.	2.5	8
25	Prediction of a Heusler alloy with switchable metal-to-half-metal behavior. Physical Review B, 2021, 103, .	3.2	8
26	Monte Carlo Study of the Magnetic and Magnetocaloric Properties of $La_{1-x}Ca_xMnO_3$ ( $x = 0.33$ and $0.5$ ). Solid State Phenomena, 2012, 190, 347-350.	0.3	7
27	First Principles Investigation of Magnetic Properties of Fe-Ni-Mn-Al Heusler Alloys. Physics Procedia, 2015, 75, 1427-1434.	1.2	7
28	First-principles study of the structural and magnetic properties of the $Ni_{45}Co_5Mn_{39}Sn_{11}$ Heusler alloy. Journal of Magnetism and Magnetic Materials, 2015, 383, 180-185.	2.3	7
29	Magnetostriction of $Fe_{100-x}Ga_x$ alloys from first principles calculations. Journal of Magnetism and Magnetic Materials, 2019, 476, 120-123.	2.3	7
30	First-principles study of Ni-Co-Mn-Sn alloys with regular and inverse Heusler structure. Journal of Magnetism and Magnetic Materials, 2019, 476, 546-550.	2.3	7
31	Ground state and magnetic properties of the Cr-doped Ni-Mn-(Ga, Ge, In, Sn) alloys: Insights from ab initio study. Journal of Magnetism and Magnetic Materials, 2019, 470, 123-126.	2.3	7
32	Modeling of the structural and magnetic properties of Fe-Rh-(Z) ( $Z = Mn, Pt$ ) alloys by first principles methods. Journal of Magnetism and Magnetic Materials, 2019, 470, 69-72.	2.3	7
33	The phase diagrams of $NiMnGa$ alloys in the magnetic field. Journal of Magnetism and Magnetic Materials, 2007, 313, 312-316.	2.3	6
34	Phase transitions in Heusler alloys with exchange inversion. Journal of Magnetism and Magnetic Materials, 2008, 320, e175-e178.	2.3	6
35	Investigation of electronic, magnetic and structural properties of the $Fe_{1-x}Mn_xRh$ . Journal of Magnetism and Magnetic Materials, 2019, 476, 325-328.	2.3	6
36	Design of a Stable Heusler Alloy with Switchable Metal-Half-Metal Transition at Finite Temperature. Advanced Theory and Simulations, 2021, 4, 2100311.	2.8	6

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37	New Heusler alloys with a metamagnetostructural phase transition. Bulletin of the Russian Academy of Sciences: Physics, 2008, 72, 564-568.	0.6	5
38	Ab initio study of the composite phase diagram of Ni-Mn-Ga shape memory alloys. Journal of Experimental and Theoretical Physics, 2017, 125, 104-110.	0.9	5
39	The Effect of Anti-Site Disorder on Structural and Magnetic Properties of Ni-Co-Mn-In Alloys: <i>Ab Initio</i> and Monte Carlo Studies. IEEE Transactions on Magnetics, 2018, 54, 1-5.	2.1	5
40	Superconducting and antiferromagnetic properties of dual-phase V3Ga. Applied Physics Letters, 2020, 117, 062401.	3.3	5
41	Compositional trends in Ni-Mn-Ga Heusler alloys: first-principles approach. MATEC Web of Conferences, 2015, 33, 05005.	0.2	4
42	The effect of exchange-correlation potentials on magnetic properties of Fe-(Ga, Ge, Al) alloys. Journal of Physics: Conference Series, 2019, 1389, 012087.	0.4	4
43	First principles study of structural and magnetic properties in Fe <sub>100-x</sub> Ge alloys. Physica B: Condensed Matter, 2020, 580, 411934.	2.7	4
44	Phase Transformations in Ni(Co)-Mn(Cr,C)-(In,Sn) Alloys: An Ab Initio Study. Physics of Metals and Metallography, 2020, 121, 202-209.	1.0	4
45	A Ternary Map of Ni-Mn-Ga Heusler Alloys from Ab Initio Calculations. Metals, 2021, 11, 973.	2.3	4
46	Theoretical Approach to Investigation of the Magnetic and Magnetocaloric Properties of Heusler Ni-Mn-Ga Alloys. Physics of the Solid State, 2020, 62, 785-792.	0.6	4
47	Complex investigations of phase diagram of Ni-Pt-Mn-Ga Heusler alloys. Letters on Materials, 2018, 8, 21-26.	0.7	4
48	The phase diagram of Ni-Mn-Ga alloys with account of crystal lattice modulation and external magnetic field. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 218-222.	5.6	3
49	Publisher's Note: First-principles investigation of chemical and structural disorder in magnetic Ni <sub>2</sub> Mn <sub>1+x</sub> Sn <sub>1-x</sub> Heusler alloys [Phys. Rev. B86, 134418 (2012)]. Physical Review B, 2013, 87, .	3.2	3
50	<i>Ab Initio</i> Study of Magnetic Properties and Phase Diagram of Ni-Mn-Ga Heusler Alloys. Materials Science Forum, 0, 738-739, 473-477.	0.3	3
51	Investigation of structural and magnetic properties of Heusler Fe <sub>2+x</sub> Mn <sub>1-x</sub> Al alloys by first principles method. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 979-983.	0.8	3
52	First Principles Calculations of Magnetic Exchange Parameters of Fe-Mn-Al Heusler Alloys. Solid State Phenomena, 0, 215, 131-136.	0.3	3
53	First Principles Investigations of Structural and Magnetic Properties of Fe-Ni-Mn-Al Heusler Alloys. Solid State Phenomena, 2015, 233-234, 187-191.	0.3	3
54	Predictions of a Large Magnetocaloric Effect in Co- and Cr-Substituted Heusler Alloys Using First-Principles and Monte Carlo Approaches. Physics Procedia, 2015, 75, 1381-1388.	1.2	3

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55	<i>Ab Initio</i> Investigations of Structural and Magnetic Properties of Cr-Doped Ni-Co-Mn-Sn Heusler Alloys. Materials Science Forum, 2016, 845, 134-137.	0.3	3
56	Monte Carlo Simulations of Thermal Hysteresis in Niâ€Mnâ€Based Heusler Alloys. Physica Status Solidi (B): Basic Research, 2018, 255, 1700265.	1.5	3
57	Structural and magnetic properties of heusler alloys Pd2MnZ (Z=Ga, Ge, As): AB INITIO study. EPJ Web of Conferences, 2018, 185, 05007.	0.3	3
58	Phase Diagram of Feâ€Al Alloys: A Study from First Principles. Bulletin of the Russian Academy of Sciences: Physics, 2019, 83, 844-846.	0.6	3
59	Correlation effects in the ground state of Ni-(Co)-Mn-Sn Heusler compounds. MRS Advances, 2019, 4, 441-446.	0.9	3
60	Phase transitions in Fe-(23âˆ²24)Ga alloys: Experimental results and modeling. Journal of Alloys and Compounds, 2021, 885, 160917.	5.5	3
61	Theoretical study of heat transfer processes in Heusler-type magnetic microwires. Letters on Materials, 2019, 9, 395-399.	0.7	3
62	Monte Carlo simulations of hysteresis effects at the martensitic transformation. Physica B: Condensed Matter, 2019, 575, 411692.	2.7	2
63	Peculiarities of phonons in Ni-Mn-Ga alloys: Ab initio studies. Journal of Magnetism and Magnetic Materials, 2019, 470, 73-76.	2.3	2
64	Statistical model for the martensitic transformation simulation in Heusler alloys. Physica B: Condensed Matter, 2020, 578, 411874.	2.7	2
65	Structural, magnetic and electronic properties of FeRh <sub>x</sub> Pd <sub>1-x</sub> compounds: Ab initio study. Physica B: Condensed Matter, 2020, 578, 411882.	2.7	2
66	Ab Initio Studies of Phase Transformations in Fe <sub>100-x</sub> Si <sub>x</sub> . Physics of the Solid State, 2020, 62, 739-743.	0.6	2
67	A Study of the Structure and Magnetic Properties of FeRh <sub>1-x</sub> Ir <sub>x</sub> (x = 0.5â€1) Alloys by First-Principles Methods. Physics of the Solid State, 2020, 62, 963-967.	0.6	2
68	First-Principles Study of the Structure and Properties of Fe <sub>3</sub> Pd and Feâ€Pdâ€Rh Alloys. Shape Memory and Superelasticity, 2020, 6, 61-66.	2.2	2
69	Ab initio study of magnetic properties of Fe-Mn-Al Heusler alloys. Materials Research Society Symposia Proceedings, 2013, 1581, 1.	0.1	1
70	Ab initio investigation of the structural and magnetic properties of Ni-Pt-Mn-Ga alloys. Materials Research Society Symposia Proceedings, 2013, 1581, 1.	0.1	1
71	Ternary Diagrams of Ni-Mn-Ga from First Principles. Materials Science Forum, 0, 845, 130-133.	0.3	1
72	Structural, magnetic and electronic properties of Ni-Mn-Ga-Cr Heusler alloys: ab initio and Monte Carlo studies. Materials Today: Proceedings, 2017, 4, 4621-4625.	1.8	1

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73	Phenomenological analysis of thermal hysteresis in Ni-Mn-Ga Heusler alloys. Phase Transitions, 2018, 91, 469-476.	1.3	1
74	Structural, magnetic and thermodynamic properties of Mn <sub>3</sub> -X-C (X = Ga, Sn) compounds: ab initio study. Physica B: Condensed Matter, 2018, 549, 94-97.	2.7	1
75	Investigation of structural and magnetic properties of Fe-Rh-(Z) (Z = Co, Pt) alloys by first principles method. EPJ Web of Conferences, 2018, 185, 05005.	0.3	1
76	First-Principles Study of the Structure and Magnetic Properties of Fe <sub>8</sub> Rh <sub>8-x</sub> Z <sub>x</sub> (Z = Mn, Pt, Co; x = 1,) Tj ETQq0 0 0 rgBT /Qverlock 10	0.6	1
77	Ternary phase diagram of Ni-Mn-Ga: insights from ab initio calculations. EPJ Web of Conferences, 2018, 185, 05012.	0.3	1
78	Ab initio study of DyFe <sub>4</sub> Ge <sub>2</sub> alloy. Journal of Physics: Conference Series, 2019, 1389, 012085.	0.4	1
79	Phase transitions in Fe <sub>3</sub> Al-based alloys: <i>ab initio</i> study. Phase Transitions, 2020, 93, 43-53.	1.3	1
80	Modelling of Rhombohedral Magnetostriction in Fe-Ga Alloys. Bulletin of the South Ural State University, Series: Mathematical Modelling, Programming and Computer Software, 2019, 12, 158-165.	0.4	1
81	Monte Carlo Simulations of the Exchange Bias Effect in Heusler Ni <sub>50</sub> Mn <sub>37.5</sub> Sb <sub>12.5</sub> Alloys Using Real Unit Cell. Materials Research Society Symposia Proceedings, 2011, 1310, 1.	0.1	0
82	Phase diagrams of Ni <sub>2+x</sub> Mn <sub>1-x</sub> Ga Heusler alloys from Hubbard Hamiltonian with account of Jahn-Teller effect. Materials Research Society Symposia Proceedings, 2011, 1310, 1.	0.1	0
83	The Supercell Scaling Investigation of Magnetic Properties in Ni-Mn-X (X=Ga, In, Sn, Sb) Heusler Alloys by Means of First-principles Methods. Materials Research Society Symposia Proceedings, 2013, 1581, 1.	0.1	0
84	Thermodynamic analysis of possible phase states in Ni <sub>50</sub> Mn <sub>35</sub> In <sub>15</sub> Heusler alloy. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 1144-1148.	0.8	0
85	Ab initio calculations of structural and magnetic properties of Ni-Co-Mn-Cr-Sn alloys. MATEC Web of Conferences, 2015, 33, 05003.	0.2	0
86	First Principles and Monte Carlo Calculations of Structural and Magnetic Properties of Fe <sub>x</sub> Ni <sub>2-x</sub> Mn <sub>1+y</sub> Al <sub>1-y</sub> Heusler Alloys. MATEC Web of Conferences, 2015, 33, 05002.	0.2	0
87	Density of States of Co- and Cr-Doped Ni <sub>2.0</sub> Mn <sub>1.5</sub> Sn <sub>0.5</sub> Heusler Alloys. Materials Science Forum, 0, 845, 162-165.	0.3	0
88	Complex investigation of structural and magnetic properties of the Ni-Mn-(Ga, Ge) alloys within ab initio approach. Materials Today: Proceedings, 2017, 4, 4616-4620.	1.8	0
89	Ab initio study of magnetic properties of Fe <sup>x</sup> Ga <sup>x</sup> alloys. , 2017, , .		0
90	Large change of magnetic moment in Ni <sub>13</sub> Co <sub>3</sub> Mn <sub>13</sub> Sn <sub>3</sub> and Ni <sub>13</sub> Co <sub>3</sub> Mn <sub>13</sub> Sn <sub>2</sub> Al Heusler alloys at martensitic transitions: Investigation from first principles. , 2017, , .		0

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91	Tumbling through tertiary education: an investigation of the use of Tumblr within a child development course. <i>Interactive Learning Environments</i> , 2022, 30, 49-57.	6.4	0
92	First-principles study of the structure and properties of Fe-Rh-Ir alloys. <i>Journal of Physics: Conference Series</i> , 2019, 1389, 012091.	0.4	0
93	Boron interaction with D03 phase in Fe-(27%Ga) alloys. <i>Intermetallics</i> , 2020, 126, 106938.	3.9	0
94	Electronic and Magnetic Properties of DyFe <sub>4</sub> Ge <sub>2</sub> Alloys near a Phase Transition. <i>Physics of the Solid State</i> , 2020, 62, 931-936.	0.6	0
95	Ab Initio Calculation of Vacancy Formation Energy in Antiperovskite Mn <sub>3</sub> GaC. <i>Bulletin of the South Ural State University Series Mathematics Mechanics Physics</i> , 2019, 11, 58-64.	0.2	0
96	FIRST-PRINCIPLES INVESTIGATIONS OF REFERENCE STATES OF Co <sub>2</sub> CrIn HEUSLER ALLOYS. <i>Bulletin of the South Ural State University Series Mathematics Mechanics Physics</i> , 2019, 11, 59-66.	0.2	0
97	VOLUME MAGNETOSTRICTION OF FE-GA ALLOYS: CALCULATION FROM FIRST PRINCIPLES. <i>Bulletin of the South Ural State University Series Mathematics Mechanics Physics</i> , 2020, 12, 57-62.	0.2	0
98	Structural and Elastic Properties of Fe-Ge Alloys: ab initio studies. <i>Bulletin of the South Ural State University Series Mathematics Mechanics Physics</i> , 2020, 12, 49-56.	0.2	0
99	FIRST-PRINCIPLES STUDIES OF THE PHASE TRANSITIONS IN Fe-Si ALLOYS. <i>Bulletin of the South Ural State University Series Mathematics Mechanics Physics</i> , 2021, 13, 52-58.	0.2	0