

Vitalij K Pecharsky

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Giant Magnetocaloric Effect in $Gd_5(Si_2Ge_2)$. <i>Physical Review Letters</i> , 1997, 78, 4494-4497.	2.9	3,773
2	Recent developments in magnetocaloric materials. <i>Reports on Progress in Physics</i> , 2005, 68, 1479-1539.	8.1	3,053
3	Magnetocaloric effect and magnetic refrigeration. <i>Journal of Magnetism and Magnetic Materials</i> , 1999, 200, 44-56.	1.0	1,362
4	Magnetocaloric Materials. <i>Annual Review of Materials Research</i> , 2000, 30, 387-429.	5.5	1,161
5	Magnetic phase transitions and the magnetothermal properties of gadolinium. <i>Physical Review B</i> , 1998, 57, 3478-3490.	1.1	845
6	Magnetocaloric effect from indirect measurements: Magnetization and heat capacity. <i>Journal of Applied Physics</i> , 1999, 86, 565-575.	1.1	754
7	Tunable magnetic regenerator alloys with a giant magnetocaloric effect for magnetic refrigeration from ~ 420 to ~ 290 K. <i>Applied Physics Letters</i> , 1997, 70, 3299-3301.	1.5	691
8	Thirty years of near room temperature magnetic cooling: Where we are today and future prospects. <i>International Journal of Refrigeration</i> , 2008, 31, 945-961.	1.8	594
9	Making and Breaking Covalent Bonds across the Magnetic Transition in the Giant Magnetocaloric Material $Gd_5(Si_2Ge_2)$. <i>Physical Review Letters</i> , 2000, 84, 4617-4620.	2.9	364
10	Thermodynamics of the magnetocaloric effect. <i>Physical Review B</i> , 2001, 64, .	1.1	346
11	Effect of alloying on the giant magnetocaloric effect of $Gd_5(Si_2Ge_2)$. <i>Journal of Magnetism and Magnetic Materials</i> , 1997, 167, L179-L184.	1.0	319
12	Phase relationships and crystallography in the pseudobinary system $Gd_5Si_4\text{---}Gd_5Ge_4$. <i>Journal of Alloys and Compounds</i> , 1997, 260, 98-106.	2.8	282
13	The giant magnetocaloric effect of optimally prepared $Gd_5Si_2Ge_2$. <i>Journal of Applied Physics</i> , 2003, 93, 4722-4728.	1.1	275
14	Massive Magnetic-Field-Induced Structural Transformation in Gd_5Ge_4 and the Nature of the Giant Magnetocaloric Effect. <i>Physical Review Letters</i> , 2003, 91, 197204.	2.9	255
15	$Gd_5(Si_xGe_{1-x})_4$: An Extremum Material. <i>Advanced Materials</i> , 2001, 13, 683-686.	11.1	247
16	Material-based figure of merit for caloric materials. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	244
17	Some common misconceptions concerning magnetic refrigerant materials. <i>Journal of Applied Physics</i> , 2001, 90, 4614-4622.	1.1	243
18	Advanced magnetocaloric materials: What does the future hold?. <i>International Journal of Refrigeration</i> , 2006, 29, 1239-1249.	1.8	227

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19	Mechanically Induced Solid-State Generation of Phosphorus Ylides and the Solvent-Free Wittig Reaction. <i>Journal of the American Chemical Society</i> , 2002, 124, 6244-6245.	6.6	207
20	Titanium catalyzed solid-state transformations in LiAlH ₄ during high-energy ball-milling. <i>Journal of Alloys and Compounds</i> , 2001, 329, 108-114.	2.8	205
21	Magnetic refrigeration materials (invited). <i>Journal of Applied Physics</i> , 1999, 85, 5365-5368.	1.1	192
22	On the nature of the magnetocaloric effect of the first-order magnetostructural transition. <i>Scripta Materialia</i> , 2012, 67, 572-577.	2.6	167
23	Solid state phase transformations in LiAlH ₄ during high-energy ball-milling. <i>Journal of Alloys and Compounds</i> , 2000, 313, 69-74.	2.8	161
24	Influence of the crystalline electrical field on the magnetocaloric effect of DyAl ₂ , ErAl ₂ , and DyNi ₂ . <i>Physical Review B</i> , 1998, 58, 12110-12116.	1.1	159
25	The room temperature metastable/stable phase relationships in the pseudo-binary Gd ₅ Si ₄ -Gd ₅ Ge ₄ system. <i>Journal of Alloys and Compounds</i> , 2002, 338, 126-135.	2.8	158
26	Magnetic-field and temperature dependencies of the electrical resistance near the magnetic and crystallographic first-order phase transition of Gd ₅ (Si ₂ Ge ₂). <i>Physical Review B</i> , 1999, 60, 7993-7997.	1.1	139
27	Barocaloric effect in the magnetocaloric prototype Gd ₅ Si ₂ Ge ₂ . <i>Applied Physics Letters</i> , 2012, 101, 071906.	1.5	127
28	Magnetic correlations induced by magnetic field and temperature in Gd ₅ Ge ₄ . <i>Physical Review B</i> , 2002, 65, .	1.1	125
29	A 350 K fast automatic small sample calorimeter. <i>Review of Scientific Instruments</i> , 1997, 68, 4196-4207.	0.6	122
30	The correlation of the magnetic properties and the magnetocaloric effect in (Gd _{1-x} Er _x)NiAl alloys. <i>Journal of Applied Physics</i> , 1998, 84, 5677-5685.	1.1	115
31	Comment on "Direct Measurement of the 'Giant' Adiabatic Temperature Change in Gd ₅ Si ₂ Ge ₂ ". <i>Physical Review Letters</i> , 2000, 85, 4190-4190.	2.9	112
32	Evidence of a magnetic glass state in the magnetocaloric material Gd ₅ Ge ₄ . <i>Physical Review B</i> , 2006, 74, .	1.1	112
33	The nonperitectic R ₅ (SixGe _{1-x}) ₄ phases. <i>Journal of Alloys and Compounds</i> , 2000, 303-304, 214-222.	2.8	103
34	Non-hysteretic first-order phase transition with large latent heat and giant low-field magnetocaloric effect. <i>Nature Communications</i> , 2018, 9, 2925.	5.8	102
35	Rapid solid-state transformation of tetrahedral [AlH ₄] ⁻ into octahedral [AlH ₆] ³⁻ in lithium aluminohydride. <i>Chemical Communications</i> , 2000, , 1665-1666.	2.2	101
36	Electrical resistivity, electronic heat capacity, and electronic structure of Gd ₅ Ge ₄ . <i>Physical Review B</i> , 2001, 64, .	1.1	101

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37	New type of magnetocaloric effect: Implications on low-temperature magnetic refrigeration using an Ericsson cycle. <i>Applied Physics Letters</i> , 1994, 64, 2739-2741.	1.5	91
38	Short-range anisotropic ferromagnetic correlations in the paramagnetic and antiferromagnetic phases of Gd_5Ge_4 . <i>Physical Review B</i> , 2006, 74, .	1.1	89
39	The effect of varying the crystal structure on the magnetism, electronic structure and thermodynamics in the $Gd_5(Si_xGe_{1-x})_4$ system near $x=0.5$. <i>Journal of Solid State Chemistry</i> , 2003, 171, 57-68.	1.4	87
40	Unusual magnetic behavior in $Gd_5(Si_{1.5}Ge_{2.5})$ and $Gd_5(Si_2Ge_2)$. <i>Physical Review B</i> , 2000, 62, R14625-R14628.	1.1	86
41	Interplay between reversible and irreversible magnetic phase transitions in polycrystalline Gd_5Ge_4 . <i>Physical Review B</i> , 2004, 69, .	1.1	85
42	Making the most of the magnetic and lattice entropy changes. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 3541-3547.	1.0	84
43	$(Dy_{0.5}Er_{0.5})Al_2$: A large magnetocaloric effect material for low-temperature magnetic refrigeration. <i>Applied Physics Letters</i> , 1994, 64, 253-255.	1.5	81
44	X-ray powder diffractometer for in situ structural studies in magnetic fields from 0 to 35 kOe between 2.2 and 315 K. <i>Review of Scientific Instruments</i> , 2004, 75, 1081-1088.	0.6	77
45	Giant enhancement of the magnetocaloric response in $NiCoMnTi$ by rapid solidification. <i>Acta Materialia</i> , 2019, 173, 225-230.	3.8	76
46	Overview No. 145 Metamagnetic transitions, phase coexistence and metastability in functional magnetic materials. <i>Acta Materialia</i> , 2008, 56, 5895-5906.	3.8	74
47	Rare Earths and Magnetic Refrigeration. <i>Journal of Rare Earths</i> , 2006, 24, 641-647.	2.5	73
48	Designed materials with the giant magnetocaloric effect near room temperature. <i>Acta Materialia</i> , 2019, 180, 341-348.	3.8	73
49	Preparation, crystal structure, heat capacity, magnetism, and the magnetocaloric effect of $Pr_5Ni_{1.9}Si_3$ and $PrNi$. <i>Physical Review B</i> , 2003, 68, .	1.1	72
50	Experimental device for studying the magnetocaloric effect in pulse magnetic fields. <i>Review of Scientific Instruments</i> , 1997, 68, 2432-2437.	0.6	70
51	Magnetic and magnetocaloric properties and the magnetic phase diagram of single-crystal dysprosium. <i>Physical Review B</i> , 2005, 71, .	1.1	67
52	Preparation, crystal structure, magnetic and magnetothermal properties of $(Gd_xR_{1-x})_5Ge_4$. <i>Physical Review B</i> , 2005, 72, .	1.1	66
53	Crystal structure-magnetic property relationships of Gd_5Ge_4 examined by in situ x-ray powder diffraction. <i>Physical Review B</i> , 2005, 72, .	1.1	66
54	Role of Ge in Bridging Ferromagnetism in the Giant Magnetocaloric $Gd_5(Ge_{1-x}Si_x)_4$ Alloys. <i>Physical Review Letters</i> , 2007, 98, 247205.	2.9	66

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55	The Giant Magnetocaloric Effect in $Gd_5(SixGe_{1-x})_4$ Materials for Magnetic Refrigeration. , 1998, , 1729-1736.		65
56	Metastable magnetic response across the antiferromagnetic to ferromagnetic transition in Gd_5Ge_4 . Physical Review B, 2004, 70, .	1.1	65
57	Real and imaginary components of the alternating current magnetic susceptibility of RAI_2 ($R=Gd, Dy$) T_j $ETQq1$ 1 0.784314 $rgBT$ /Over	1.1	64
58	Transformations in the $Gd_5(Si_{1.95}Ge_{2.05})$ alloy induced by the temperature and magnetic-field cycling through the first-order magnetic-martensitic phase transition. Physical Review B, 2001, 63, .	1.1	64
59	On the High-Temperature Phase Transition of $Gd_5Si_2Ge_2$. Journal of the American Chemical Society, 2005, 127, 317-324.	6.6	64
60	Uncovering the structure-property relationships in $R_5(SixGe_{4-x})$ intermetallic phases. Journal of Alloys and Compounds, 2002, 344, 362-368.	2.8	63
61	Solid-state ^{27}Al NMR investigation of thermal decomposition of $LiAlH_4$. Journal of Solid State Chemistry, 2004, 177, 648-653.	1.4	63
62	Hydrostatic pressure control of the magnetostructural phase transition in $Gd_5Si_2Ge_2$ single crystals. Physical Review B, 2005, 72, .	1.1	63
63	Structure, magnetism, and thermodynamics of the novel rare earth-based R_5T_4 intermetallics. Pure and Applied Chemistry, 2007, 79, 1383-1402.	0.9	63
64	Metamagnetism Seeded by Nanostructural Features of Single-Crystalline $Gd_{5-x}Si_{2-x}Ge_{2-x}$. Advanced Materials, 2009, 21, 3780-3783.	11.1	61
65	Mechanically induced reactions in organic solids: liquid eutectics or solid-state processes?. New Journal of Chemistry, 2010, 34, 25-28.	1.4	60
66	Magnetic structure of Gd_5Ge_4 . Physical Review B, 2005, 71, .	1.1	59
67	Caloric effects in ferroic materials. MRS Bulletin, 2018, 43, 264-268.	1.7	57
68	The giant magnetocaloric effect between 190 and 300K in the Gd_5SixGe_{4-x} alloys for $1.4 \leq x \leq 2.2$. Journal of Magnetism and Magnetic Materials, 2003, 267, 60-68.	1.0	56
69	Reducing the operational magnetic field in the prototype magnetocaloric system Gd_5Ge_4 by approaching the single cluster size limit. Applied Physics Letters, 2006, 88, 072501.	1.5	56
70	Electron correlation effects on the magnetostructural transition and magnetocaloric effect in $Gd_5Si_2Ge_2$. Physical Review B, 2006, 73, .	1.1	56
71	Magnetic field and temperature-induced first-order transition in $Gd_5(Si_{1.5}Ge_{2.5})$: a study of the electrical resistance behavior. Journal of Magnetism and Magnetic Materials, 2000, 210, 181-188.	1.0	54
72	Spontaneous generation of voltage in $Gd_5(SixGe_{4-x})$ during a first-order phase transition induced by temperature or magnetic field. Physical Review B, 2001, 63, .	1.1	54

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73	Best practices in evaluation of the magnetocaloric effect from bulk magnetization measurements. Journal of Magnetism and Magnetic Materials, 2018, 458, 301-309.	1.0	54
74	Heat capacity near first order phase transitions and the magnetocaloric effect: An analysis of the errors, and a case study of Gd ₅ (Si ₂ Ge ₂) and Dy. Journal of Applied Physics, 1999, 86, 6315-6321.	1.1	53
75	Novel Thermal Effects at the First Order Magnetic Phase Transition in Erbium, and a Comparison with Dysprosium. Physical Review Letters, 1997, 78, 4281-4284.	2.9	48
76	Disappearance and reappearance of magnetic ordering upon lanthanide substitution in (Er _{1-x} Dy _x)Al ₂ . Physical Review B, 2003, 68, .	1.1	48
77	Phase relationships and structural, magnetic, and thermodynamic properties of alloys in the pseudobinary Er ₅ Si ₄ -Er ₅ Ge ₄ system. Physical Review B, 2004, 70, .	1.1	48
78	Reversible spin-flop and irreversible metamagnetic-like transitions induced by a magnetic field in the layered Gd ₅ Ge ₄ antiferromagnet. Physical Review B, 2004, 69, .	1.1	47
79	Devitrification of the low temperature magnetic-glass state in Gd ₅ Ge ₄ . Physical Review B, 2007, 75, .	1.1	47
80	Correlating the local magnetic properties of the magnetic phase transition in Gd ₅ Ge ₄ using scanning Hall probe imaging. Physical Review B, 2006, 73, .	1.1	46
81	High-throughput search for caloric materials: the CaloriCool approach. Journal Physics D: Applied Physics, 2018, 51, 024002.	1.3	46
82	Magnetic properties of single-crystal DyAl ₂ . Physical Review B, 2005, 72, .	1.1	43
83	Enhancement of β -phase in PVDF films embedded with ferromagnetic Gd ₅ Si ₄ nanoparticles for piezoelectric energy harvesting. AIP Advances, 2017, 7, .	0.6	42
84	Crystallography, anisotropic metamagnetism, and magnetocaloric effect in Tb ₅ Si _{2.2} Ge _{1.8} . Physical Review B, 2007, 75, .	1.1	41
85	Crystallography, magnetic properties and magnetocaloric effect in Gd ₄ (Bi _x Sb _{1-x}) ₃ alloys. Journal of Magnetism and Magnetic Materials, 2001, 234, 193-206.	1.0	40
86	Decoupling of the Magnetic and Structural Transformations in Er ₅ Si ₄ . Physical Review Letters, 2003, 91, 207205.	2.9	39
87	Magnetism of Gd ₅ Ge ₄ from first principles. Physical Review B, 2007, 75, .	1.1	39
88	Mechanochemical transformations in Li(Na)AlH ₄ -Li(Na)NH ₂ systems. Acta Materialia, 2007, 55, 3121-3130.	3.8	39
89	Solvent-free mechanochemical synthesis and magnetic properties of rare-earth based metal-organic frameworks. Journal of Alloys and Compounds, 2017, 696, 118-122.	2.8	39
90	Permanent magnet array for the magnetic refrigerator. Journal of Applied Physics, 2002, 91, 8894.	1.1	38

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91	Anomalous Schottky Specific Heat and Structural Distortion in Ferromagnetic PrAl_2Mn_2 . Physical Review Letters, 2013, 110, 186405.	2.9	38
92	Polymorphism of $\text{Gd}_5\text{Si}_2\text{Ge}_2$: The equivalence of temperature, magnetic field, and chemical and hydrostatic pressures. Physical Review B, 2005, 71, .	1.1	37
93	(Magneto)caloric refrigeration: is there light at the end of the tunnel?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150305.	1.6	37
94	Magnetostructural transition in $\text{Gd}_5\text{Si}_0.5\text{Ge}_3.5$: Magnetic and x-ray powder diffraction measurements, and theoretical calculations. Physical Review B, 2008, 77, .	1.1	36
95	Anisotropy of the Magnetoresistance in $\text{Gd}_5\text{Si}_2\text{Ge}_2$. Physical Review Letters, 2004, 93, 237203.	2.9	35
96	Superheating and other unusual observations regarding the first order phase transition in Dy. Scripta Materialia, 1996, 35, 843-848.	2.6	34
97	Magnetostructural phase transitions and magnetocaloric effect in $(\text{Gd}_{1-x}\text{Sc}_x)\text{Si}_1.8\text{Ge}_2.2$. Acta Materialia, 2018, 145, 369-376.	3.8	34
98	Phase relationships and structural, magnetic, and thermodynamic properties of the $\text{Yb}_5\text{Si}_4\text{-Yb}_5\text{Ge}_4$ pseudobinary system. Physical Review B, 2005, 72, .	1.1	33
99	Magnetic anisotropy and magnetic phase diagram of Gd_5Ge_4 . Physical Review B, 2006, 74, .	1.1	33
100	Magnetic field induced phase transitions in $\text{Gd}_5(\text{Si}_{1.95}\text{Ge}_{2.05})$ single crystal and the anisotropic magnetocaloric effect. Journal of Applied Physics, 2003, 93, 8298-8300.	1.1	32
101	Tracking and understanding the first-order structural transition in Er_5Si_4 . Physical Review B, 2004, 69, .	1.1	32
102	The effect of cooling rate on magnetothermal properties of $\text{Fe}_{49}\text{Rh}_{51}$. Journal of Magnetism and Magnetic Materials, 2020, 498, 166130.	1.0	32
103	Unusual magnetism of $\text{Er}_{0.75}\text{Dy}_{0.25}\text{Al}_2$. Physical Review B, 2007, 76, .	1.1	31
104	Origins of ferromagnetism and antiferromagnetism in Gd_5Ge_4 . Journal of Physics Condensed Matter, 2008, 20, 235235.	0.7	30
105	Unusual magnetic properties of Si_4Mn_4 . Physical Review B, 2008, 77, .	1.1	30
106	Microstructure and magnetocaloric effect in cast $\text{LaFe}_{11.5}\text{Si}_{1.5}\text{B}_x$ ($x=0.5, 1.0$). Journal of Magnetism and Magnetic Materials, 2010, 322, 1710-1714.	1.0	30
107	Controlling Magnetism of a Complex Metallic System Using Atomic Individualism. Physical Review Letters, 2010, 105, 066401.	2.9	30
108	Cation-Poor Complex Metallic Alloys in $\text{Ba}(\text{Eu})\text{-Au-Al}(\text{Ga})$ Systems: Identifying the Keys that Control Structural Arrangements and Atom Distributions at the Atomic Level. Inorganic Chemistry, 2015, 54, 10296-10308.	1.9	30

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109	Phase relationships and low temperature heat capacities of alloys in the Y ₅ Si ₄ -Y ₅ Ge ₄ pseudo binary system. Journal of Alloys and Compounds, 2004, 379, 127-134.	2.8	29
110	Thermochemical transformations in 2MnH ₂ -3MgH ₂ systems (M=Li or Na). International Journal of Hydrogen Energy, 2010, 35, 4562-4568.	3.8	29
111	Balancing structural distortions via competing 4f and itinerant interactions: a case of polymorphism in magnetocaloric HoCo ₂ . Journal of Materials Chemistry C, 2016, 4, 4521-4531.	2.7	29
112	Magnetocaloric Behavior in Ternary Europium Indides EuT ₅ In: Probing the Design Capability of First-Principles-Based Methods on the Multifaceted Magnetic Materials. Chemistry of Materials, 2017, 29, 2599-2614.	3.2	29
113	Manipulating the stability of crystallographic and magnetic sub-lattices: A first-order magnetoelastic transformation in transition metal based Laves phase. Acta Materialia, 2018, 154, 365-374.	3.8	29
114	The role of demagnetization factor in determining the $\epsilon_{true}^{\text{TM}}$ value of the Curie temperature. Journal of Magnetism and Magnetic Materials, 2011, 323, 2453-2457.	1.0	28
115	First-order magnetic phase transition in $P\text{-}r\text{-}Mn_2\text{-}In$ with negligible thermomagnetic hysteresis. Physical Review B, 2020, 101,	1.1	28
116	Solvent-free mechanochemical synthesis of alane, AlH ₃ : effect of pressure on the reaction pathway. Green Chemistry, 2014, 16, 4378-4388.	4.6	27
117	Investigation of Room Temperature Ferromagnetic Nanoparticles of Gd ₅ Si ₄ . IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	26
118	Thermodynamic features of magnetization and magnetocaloric effect near the magnetic ordering temperature of Gd. Journal of Magnetism and Magnetic Materials, 2007, 316, e555-e557.	1.0	25
119	Understanding the extraordinary magnetoelastic behavior in GdNi. Physical Review B, 2008, 78, .	1.1	25
120	Compact and efficient elastocaloric heat pumpsâ€”Is there a path forward?. Journal of Applied Physics, 2020, 127, .	1.1	25
121	Magnetic and crystal structures of Er ₅ (SixGe _{1-x}) ₄ . Journal of Physics Condensed Matter, 2006, 18, 3937-3950.	0.7	24
122	Magnetic and structural transitions in Dy ₅ Si ₃ Ge. Physical Review B, 2007, 76, .	1.1	24
123	Complex Magnetism of Lanthanide Intermetallics and the Role of their Valence Electrons: <i>Ab Initio</i> Theory and Experiment. Physical Review Letters, 2015, 115, 207201. Unexpected magnetism, Griffiths phase, and exchange bias in the mixed lanthanide	2.9	24
124	$Pr\text{-}Mn_2\text{-}In$ $Er\text{-}Mn_2\text{-}In$	1.1	23
125	Temperature and magnetic field-dependent x-ray powder diffraction study of dysprosium. Physical Review B, 2008, 77, .	1.1	22
126	Magnetocaloric effects in Er _{1-x} TbxAl ₂ alloys. Journal of Applied Physics, 2010, 107, .	1.1	22

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127	Gd ₃ Ni ₂ and Gd ₃ Co _x Ni _{2-2x} : magnetism and unexpected Co/Ni crystallographic ordering. Journal of Materials Chemistry C, 2016, 4, 6078-6089.	2.7	22
128	The crystal structure of the oxygen-stabilized $\hat{\Gamma}$ -phase Zr ₃ V ₃ O _x D _{9.6} . Journal of Alloys and Compounds, 2000, 309, 75-82.	2.8	21
129	Neutron diffraction studies of the magnetoelastic compounds Tb ₅ Si _x Ge _{4-2x} (x=2.2 and 2.5). Physical Review B, 2005, 72, .	1.1	21
130	Field step size and temperature effects on the character of the magnetostructural transformation in Gd ₅ Ge ₄ . Identifying the critical point of the weakly first-order itinerant magnet DyCo ₂ with complementary magnetization and calorimetric measurements. Physical Review B, 2013, 87, .	1.1	21
131	Identifying the critical point of the weakly first-order itinerant magnet DyCo ₂ with complementary magnetization and calorimetric measurements. Physical Review B, 2013, 87, .	1.1	21
132	Low-force compressive and tensile actuation for elastocaloric heat pumps. Applied Materials Today, 2020, 19, 100557.	2.3	21
133	Temperature and magnetic field induced structural transformation in Si-doped Γ : An in-field X-ray diffraction study. Solid State Communications, 2010, 150, 879-883.	0.9	20
134	The nature of the first order isostructural transition in GdRhSn. Journal of Alloys and Compounds, 2014, 613, 280-287.	2.8	20
135	Dry mechanochemical synthesis of alane from LiH and AlCl ₃ . Faraday Discussions, 2014, 170, 137-153.	1.6	20
136	Breaking the paradigm: record quindecim charged magnetic ionic liquids. Materials Horizons, 2017, 4, 217-221.	6.4	20
137	Evidence for a coupled magnetic-crystallographic transformation in Nd ₅ (Si _{0.6} Ge _{0.4}) ₄ . Physical Review B, 2004, 70, .	1.1	19
138	Training effects in Gd ₅ Ge ₄ : role of microstructure. Journal of Physics Condensed Matter, 2006, 18, 6017-6032.	0.7	19
139	Effect of hydrostatic pressure upon the magnetic transitions in the Gd ₅ Ge ₄ . Magnetic phase transitions and ferromagnetic short-range correlations in single-crystal Tb ₅ Si _x Ge _{4-2x} . Physical Review B, 2008, 78, .	1.1	19
140	Magnetic phase transitions and ferromagnetic short-range correlations in single-crystal Tb ₅ Si _x Ge _{4-2x} . Physical Review B, 2008, 78, .	1.1	19
141	Magnetostructural properties of Ho ₅ Ge ₄ . Physical Review B, 2010, 81, .	1.1	19
142	Extraordinary Responsive Intermetallic Compounds: the R ₅ T ₄ Family (R = Rare Earth, T = Group 13-15 Element). Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2011, 637, 1948-1956.	0.6	19
143	$\hat{\Gamma}$ -Brasses with Spontaneous Magnetization: Atom Site Preferences and Magnetism in the Fe ₃ Zn and Fe ₃ Pd ₃ Zn Phase Spaces. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2015, 641, 270-278.	0.6	19
144	Ferromagnetic Gd ₅ Si ₄ Nanoparticles as T2 Contrast Agents for Magnetic Resonance Imaging. IEEE Magnetics Letters, 2017, 8, 1-4.	0.6	19

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145	Magnetic properties of Gd ₅ (Si _{1.5} Ge _{2.5}) near the temperature and magnetic field induced first order phase transition. Journal of Magnetism and Magnetic Materials, 2001, 231, 135-145.	1.0	18
146	Mechanochemical transformations in NaNH ₂ -MgH ₂ mixtures. Journal of Alloys and Compounds, 2012, 513, 324-327.	2.8	18
147	Solid state electrotransport purification of dysprosium. Journal of Alloys and Compounds, 1995, 226, 190-196.	2.8	17
148	The standard state of cerium. Journal of Phase Equilibria and Diffusion, 1999, 20, 612-614.	0.3	17
149	Magnetic spectroscopy at high pressures using X-ray magnetic circular dichroism. High Pressure Research, 2008, 28, 185-192.	0.4	17
150	Magnetostructural transition in Ho ₅ Ge ₄ . Physical Review B, 2009, 79, .	1.1	17
151	Thermally mediated multiferroic composites for the magnetoelectric materials. Applied Physics Letters, 2010, 96, 102902.	1.5	17
152	Structure evolution and dielectric behavior of polystyrene-capped barium titanate nanoparticles. Journal of Materials Chemistry, 2012, , .	6.7	17
153	Open-Framework Manganese(II) and Cobalt(II) Borophosphates with Helical Chains: Structures, Magnetic, and Luminescent Properties. Inorganic Chemistry, 2017, 56, 11104-11112.	1.9	17
154	Mechanochemical synthesis, luminescent and magnetic properties of lanthanide benzene-1,4-dicarboxylate coordination polymers (Ln _{0.5} Gd _{0.5}) ₂ (1,4-BDC) ₃ (H ₂ O) ₄ ; Ln = Sm, Eu, Tb. New Journal of Chemistry, 2020, 44, 1054-1062.	1.4	17
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156	Field-induced magnetostructural transition in $Gd_{5-x}M_{x}Si_{4}$ by pulsed magnetic fields. Physical Review B, 2008, 77, .	1.1	16
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