

# Vitalij K Pecharsky

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

288  
papers

20,438  
citations

58  
h-index

139  
g-index

304  
ext. papers

22,028  
ext. citations

4.1  
avg, IF

6.99  
L-index

#	Paper	IF	Citations
288	Hidden first-order phase transitions and large magnetocaloric effects in GdNi <sub>1-x</sub> Cox. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 897, 163186	5.7	1
287	Magneto-thermal properties of Ho <sub>1-x</sub> Dy <sub>x</sub> Al <sub>2</sub> (x = 0, 0.05, 0.10, 0.15, 0.25 and 0.50) compounds. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2022</b> , 544, 168705	2.8	2
286	Indium segregation in Gd <sub>5</sub> (Si <sub>1-x</sub> Ge <sub>x</sub> ) <sub>4</sub> magnetocaloric materials. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 893, 162245	5.7	0
285	Inducing Fe moment in LaFeSi with p-block element substitution. <i>AIP Advances</i> , <b>2022</b> , 12, 035130	1.5	
284	Crystal and Magnetic Structures of the Ternary HoNiSi and HoNiGe Compounds: An Example of Intermetallics Crystallizing with the ZrNiP Prototype. <i>Inorganic Chemistry</i> , <b>2021</b> , 60, 16397-16408	5.1	
283	Protein-assisted scalable mechanochemical exfoliation of few-layer biocompatible graphene nanosheets. <i>Royal Society Open Science</i> , <b>2021</b> , 8, 200911	3.3	1
282	Unlocking large compressive strains in thin active elastocaloric layers. <i>Applied Thermal Engineering</i> , <b>2021</b> , 190, 116850	5.8	2
281	A New Complex Borohydride LiAl(BH <sub>4</sub> ) <sub>2</sub> Cl <sub>2</sub> . <i>Inorganics</i> , <b>2021</b> , 9, 35	2.9	
280	Controlling magnetostructural transition and magnetocaloric effect in multi-component transition-metal-based materials. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 193901	2.5	7
279	Distinctive exchange bias and unusual memory effects in magnetically compensated Pr <sub>0.75</sub> Gd <sub>0.25</sub> ScGe. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 181-188	7.1	1
278	Magneto-thermal properties of Tm <sub>x</sub> Dy <sub>1-x</sub> Al <sub>2</sub> (x= 0.25, 0.50 and 0.75). <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 858, 157682	5.7	2
277	Extraordinarily strong magneto-responsiveness in phase-separated LaFe <sub>2</sub> Si. <i>Acta Materialia</i> , <b>2021</b> , 215, 117083	8.4	2
276	Magnetoelastic transition and magnetocaloric effect in induction melted Fe <sub>100-x</sub> Rh <sub>x</sub> bulk alloys with x=50, 51. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 871, 159586	5.7	5
275	Toward efficient elastocaloric systems: Predicting material thermal properties with high fidelity. <i>Acta Materialia</i> , <b>2021</b> , 217, 117162	8.4	0
274	Incommensurate transition-metal dichalcogenides via mechanochemical reshuffling of binary precursors. <i>Nanoscale Advances</i> , <b>2021</b> , 3, 4065-4071	5.1	1
273	Free-energy analysis of the nonhysteretic first-order phase transition of Eu <sub>2</sub> In. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	4
272	First-order magnetic phase transition in Pr <sub>2</sub> In with negligible thermomagnetic hysteresis. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	13

271	Unprecedented generation of 3D heterostructures by mechanochemical disassembly and re-ordering of incommensurate metal chalcogenides. <i>Nature Communications</i> , <b>2020</b> , 11, 3005	17.4	5
270	Magnetic structure of selected Gd intermetallic alloys from first principles. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	3
269	Differential effect of magnetic alignment on additive manufacturing of magnetocaloric particles. <i>AIP Advances</i> , <b>2020</b> , 10, 015052	1.5	6
268	Magnetic and transport behaviors of non-centrosymmetric Nd <sub>7</sub> Ni <sub>2</sub> Pd. <i>AIP Advances</i> , <b>2020</b> , 10, 015103	1.5	1
267	Low-force compressive and tensile actuation for elastocaloric heat pumps. <i>Applied Materials Today</i> , <b>2020</b> , 19, 100557	6.6	6
266	Compact and efficient elastocaloric heat pumps—there a path forward?. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 194501	2.5	9
265	The effect of cooling rate on magnetothermal properties of Fe <sub>49</sub> Rh <sub>51</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , <b>2020</b> , 498, 166130	2.8	23
264	Mechanochemical synthesis, luminescent and magnetic properties of lanthanide benzene-1,4-dicarboxylate coordination polymers (Ln <sub>0.5</sub> Gd <sub>0.5</sub> ) <sub>2</sub> (1,4-BDC) <sub>3</sub> (H <sub>2</sub> O) <sub>4</sub> ; Ln = Sm, Eu, Tb. <i>New Journal of Chemistry</i> , <b>2020</b> , 44, 1054-1062	3.6	8
263	Low-Temperature Crystal Structure and Mean-Field Modeling of Er <sub>x</sub> Dy <sub>1-x</sub> Al <sub>2</sub> Intermetallics. <i>Metals</i> , <b>2020</b> , 10, 1662	2.3	0
262	Giant enhancement of the magnetocaloric response in Ni <sub>2</sub> CoMnTi by rapid solidification. <i>Acta Materialia</i> , <b>2019</b> , 173, 225-230	8.4	42
261	Stability of magnetocaloric La(FexCoySi <sub>1-x-y</sub> ) <sub>13</sub> in water and air. <i>AIP Advances</i> , <b>2019</b> , 9, 035239	1.5	0
260	Magnetostructural behavior in the non-centrosymmetric compound NdPd. <i>Journal of Physics Condensed Matter</i> , <b>2019</b> , 31, 265801	1.8	2
259	Gd <sub>5</sub> Si <sub>4</sub> -PVDF nanocomposite films and their potential for triboelectric energy harvesting applications. <i>AIP Advances</i> , <b>2019</b> , 9, 035116	1.5	3
258	Antiferromagnetism of $\beta$ -Ce under hydrostatic pressure. <i>Solid State Communications</i> , <b>2019</b> , 294, 36-38	1.6	
257	Enhancement of microwave absorption bandwidth of polymer blend using ferromagnetic gadolinium silicide nanoparticles. <i>Materials Letters</i> , <b>2019</b> , 252, 178-181	3.3	8
256	Mechanochemical reactions and hydrogen storage capacities in MBH <sub>4</sub> Si <sub>2</sub> systems (MLi or Na). <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 7381-7391	6.7	8
255	Magnetocaloric Effect of Micro- and Nanoparticles of Gd <sub>5</sub> Si <sub>4</sub> . <i>Jom</i> , <b>2019</b> , 71, 3159-3163	2.1	9
254	Designed materials with the giant magnetocaloric effect near room temperature. <i>Acta Materialia</i> , <b>2019</b> , 180, 341-348	8.4	41

253	From Tb <sub>3</sub> Ni <sub>2</sub> to Tb <sub>3</sub> CoNi: The interplay between chemistry, structure, and magnetism. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	1
252	Managing hysteresis of Gd <sub>5</sub> Si <sub>2</sub> Ge <sub>2</sub> by magnetic field cycling. <i>Journal of Applied Physics</i> , <b>2019</b> , 126, 243902	5	8
251	The first-order magnetoelastic transition in Eu <sub>2</sub> In: A <sup>151</sup> Eu Mössbauer study. <i>AIP Advances</i> , <b>2019</b> , 9, 125137	5	2
250	Inkjet Printing of Magnetic Particles Toward Anisotropic Magnetic Properties. <i>Scientific Reports</i> , <b>2019</b> , 9, 16261	4.9	8
249	Gadolinium silicide (Gd <sub>5</sub> Si <sub>4</sub> ) nanoparticles for tuneable broad band microwave absorption. <i>Materials Research Express</i> , <b>2019</b> , 6, 055053	1.7	7
248	Anomalous effects of Sc substitution and processing on magnetism and structure of (Gd <sub>1-x</sub> Sc <sub>x</sub> ) <sub>5</sub> Ge <sub>4</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , <b>2019</b> , 474, 482-492	2.8	1
247	Magnetic and magnetocaloric properties of DyCo <sub>2</sub> C <sub>x</sub> alloys. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 777, 152-156	5.7	6
246	Anomalous specific heat and magnetic properties of Tm <sub>x</sub> Dy <sub>1-x</sub> Al <sub>2</sub> (0 ≤ x ≤ 1). <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 774, 321-330	5.7	3
245	Caloric effects in ferroic materials. <i>MRS Bulletin</i> , <b>2018</b> , 43, 264-268	3.2	41
244	Material-based figure of merit for caloric materials. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 034902	2.5	119
243	Mechanochemistry of the LiBH <sub>4</sub> /AlCl <sub>3</sub> System: Structural Characterization of the Products by Solid-State NMR. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 1955-1962	3.8	4
242	Magnetostructural phase transitions and magnetocaloric effect in (Gd <sub>5-x</sub> Sc <sub>x</sub> )Si <sub>1.8</sub> Ge <sub>2.2</sub> . <i>Acta Materialia</i> , <b>2018</b> , 145, 369-376	8.4	20
241	Investigating phase transition temperatures of size separated gadolinium silicide magnetic nanoparticles. <i>AIP Advances</i> , <b>2018</b> , 8, 056428	1.5	11
240	Best practices in evaluation of the magnetocaloric effect from bulk magnetization measurements. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2018</b> , 458, 301-309	2.8	38
239	Non-hysteretic first-order phase transition with large latent heat and giant low-field magnetocaloric effect. <i>Nature Communications</i> , <b>2018</b> , 9, 2925	17.4	54
238	High-throughput search for caloric materials: the CaloriCool approach. <i>Journal Physics D: Applied Physics</i> , <b>2018</b> , 51, 024002	3	32
237	Controlling magnetism via transition metal exchange in the series of intermetallics Eu(T <sub>1</sub> ,T <sub>2</sub> ) <sub>5</sub> In (T = Cu, Ag, Au). <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 1353-1362	7.1	1
236	Multi-principal element transition metal dichalcogenides via reactive fusion of 3D-heterostructures. <i>Chemical Communications</i> , <b>2018</b> , 54, 12574-12577	5.8	6

235	Manipulating the stability of crystallographic and magnetic sub-lattices: A first-order magnetoelastic transformation in transition metal based Laves phase. <i>Acta Materialia</i> , <b>2018</b> , 154, 365-374	8.4	19
234	Anisotropy induced anomalies in Dy <sub>1-x</sub> Tb <sub>x</sub> Al <sub>2</sub> . <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 896-901	7.1	6
233	Enhancement of $\beta$ -phase in PVDF films embedded with ferromagnetic Gd <sub>5</sub> Si <sub>4</sub> nanoparticles for piezoelectric energy harvesting. <i>AIP Advances</i> , <b>2017</b> , 7, 056411	1.5	28
232	Magnetocaloric Behavior in Ternary Europium Indides EuT <sub>5</sub> In: Probing the Design Capability of First-Principles-Based Methods on the Multifaceted Magnetic Materials. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 2599-2614	9.6	20
231	EuNi <sub>5</sub> InH <sub>1.5x</sub> (x = 0-1.5): hydrogen induced structural and magnetic transitions. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 2994-3006	7.1	8
230	Enhancing Magnetic Functionality with Scandium: Breaking Stereotypes in the Design of Rare Earth Materials. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 3962-3970	9.6	11
229	RAuPn (R = Y, Gd-Tm; Pn = Sb, Bi): A Link between CuSn and GdAg. <i>Inorganic Chemistry</i> , <b>2017</b> , 56, 7247-7256	5.6	7
228	Breaking the paradigm: record quidecim charged magnetic ionic liquids. <i>Materials Horizons</i> , <b>2017</b> , 4, 217-221	14.4	15
227	Open-Framework Manganese(II) and Cobalt(II) Borophosphates with Helical Chains: Structures, Magnetic, and Luminescent Properties. <i>Inorganic Chemistry</i> , <b>2017</b> , 56, 11104-11112	5.1	14
226	Ferromagnetic Gd <sub>5</sub> Si <sub>4</sub> Nanoparticles as T <sub>2</sub> Contrast Agents for Magnetic Resonance Imaging. <i>IEEE Magnetics Letters</i> , <b>2017</b> , 8, 1-4	1.6	15
225	Role of 4f electrons in crystallographic and magnetic complexity. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	7
224	Crystal, magnetic, calorimetric and electronic structure investigation of GdScGe Sb compounds. <i>Journal of Physics Condensed Matter</i> , <b>2017</b> , 29, 485802	1.8	8
223	A benign synthesis of alane by the composition-controlled mechanochemical reaction of sodium hydride and aluminum chloride. <i>Journal of Materials Science</i> , <b>2017</b> , 52, 11900-11910	4.3	2
222	Solvent-free mechanochemical synthesis and magnetic properties of rare-earth based metal-organic frameworks. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 696, 118-122	5.7	28
221	Synthesis, Structure, and Hydrogen-Sorption Properties of (Ti,Zr) <sub>4</sub> Ni <sub>2</sub> N <sub>x</sub> Subnitrides. <i>Materials Science</i> , <b>2017</b> , 53, 306-315	0.7	1
220	Towards Direct Synthesis of Alane: A Predicted Defect-Mediated Pathway Confirmed Experimentally. <i>ChemSusChem</i> , <b>2016</b> , 9, 2358-64	8.3	5
219	Gd <sub>3</sub> Ni <sub>2</sub> and Gd <sub>3</sub> Co <sub>x</sub> Ni <sub>2-x</sub> : magnetism and unexpected Co/Ni crystallographic ordering. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 6078-6089	7.1	11
218	The effect of boron doping on crystal structure, magnetic properties and magnetocaloric effect of DyCo <sub>2</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , <b>2016</b> , 405, 122-128	2.8	10

217	(Magneto)caloric refrigeration: is there light at the end of the tunnel?. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2016</b> , 374,	3	28
216	Tunable magnetism and structural transformations in mixed light- and heavy-lanthanide dialuminides. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	4
215	Balancing structural distortions via competing 4f and itinerant interactions: a case of polymorphism in magnetocaloric HoCo <sub>2</sub> . <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 4521-4531	7.1	20
214	Magnetostructural phase transformations in Tb <sub>1-x</sub> Mn <sub>2</sub> . <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 2422-2430	4.3	4
213	Investigation of Room Temperature Ferromagnetic Nanoparticles of Gd <sub>5</sub> Si <sub>4</sub> . <i>IEEE Transactions on Magnetics</i> , <b>2015</b> , 51, 1-4	2	23
212	Cation-Poor Complex Metallic Alloys in Ba(Eu)-Au-Al(Ga) Systems: Identifying the Keys that Control Structural Arrangements and Atom Distributions at the Atomic Level. <i>Inorganic Chemistry</i> , <b>2015</b> , 54, 10296-308	5.1-23	23
211	Magnetic properties and magnetic entropy changes of MRE <sub>2</sub> Co <sub>7</sub> compounds. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2015</b> , 58, 1	3.6	4
210	EBrasses with Spontaneous Magnetization: Atom Site Preferences and Magnetism in the Fe-Zn and Fe-Pd-Zn Phase Spaces. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , <b>2015</b> , 641, 270-278	1.3	12
209	Complex Magnetism of Lanthanide Intermetallics and the Role of their Valence Electrons: Ab Initio Theory and Experiment. <i>Physical Review Letters</i> , <b>2015</b> , 115, 207201	7.4	15
208	Unexpected magnetism, Griffiths phase, and exchange bias in the mixed lanthanide Pr <sub>0.6</sub> Er <sub>0.4</sub> Al <sub>2</sub> . <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	19
207	The nature of the first order isostructural transition in GdRhSn. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 613, 280-287	5.7	15
206	Dry mechanochemical synthesis of alane from LiH and AlCl <sub>3</sub> . <i>Faraday Discussions</i> , <b>2014</b> , 170, 137-53	3.6	16
205	Magnetocaloric effect of Pr <sub>2</sub> Fe <sub>17-x</sub> Mn <sub>x</sub> alloys. <i>Rare Metals</i> , <b>2014</b> , 33, 552-555	5.5	8
204	Solvent-free mechanochemical synthesis of alane, AlH <sub>3</sub> : effect of pressure on the reaction pathway. <i>Green Chemistry</i> , <b>2014</b> , 16, 4378-4388	10	24
203	Electronic structure, magnetic properties, and magnetostructural transformations in rare earth dialuminides. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 17E127	2.5	7
202	Magnetic and magnetothermal properties and the magnetic phase diagram of high purity single crystalline terbium along the easy magnetization direction. <i>Journal of Physics Condensed Matter</i> , <b>2014</b> , 26, 066001	1.8	14
201	Low temperature crystal structure and magnetic properties of RAl <sub>2</sub> . <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 17E109	2.5	8
200	In situ X-ray powder diffraction study of Ho <sub>5</sub> Ge <sub>4</sub> . <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 17E105	2.5	1

199	Growth and characterization of Pt-protected Gd <sub>5</sub> Si <sub>4</sub> thin films. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 17C113	2.5	9
198	On the magnetic order of Gd <sub>5</sub> Ge <sub>3</sub> . <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 17A901	2.5	3
197	Formation of Co Moment in the Paramagnetic Phase of RCo <sub>2</sub> . <i>IEEE Transactions on Magnetics</i> , <b>2014</b> , 50, 1-4	2	4
196	R <sub>5</sub> T <sub>4</sub> Compounds. <i>Fundamental Theories of Physics</i> , <b>2014</b> , 44, 283-449	0.8	5
195	Spin-glass behavior in a giant unit cell compound Tb <sub>2</sub> Be <sub>2</sub> Ge <sub>11</sub> . <i>Journal of Physics Condensed Matter</i> , <b>2014</b> , 26, 416003	1.8	5
194	Electronic contribution to the enhancement of the ferromagnetic ordering temperature by Si substitution in Gd <sub>5</sub> (SixGe <sub>1-x</sub> ) <sub>4</sub> . <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	12
193	The crystal structure and magnetic properties of Pr <sub>117</sub> Co <sub>56.7</sub> Ge <sub>112</sub> . <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 17E120	2.5	5
192	Ferromagnetic ordering and Griffiths-like phase behavior in Gd <sub>5</sub> Ge <sub>3.9</sub> Al <sub>0.1</sub> . <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 063904	2.5	4
191	Effects of pressure on the magnetic-structural and Griffiths-like transitions in Dy <sub>5</sub> Si <sub>3</sub> Ge. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	4
190	Understanding and prediction of electronic-structure-driven physical behaviors in rare-earth compounds. <i>Journal of Physics Condensed Matter</i> , <b>2013</b> , 25, 396002	1.8	13
189	Unusual magnetic and structural transformations of DyFe <sub>4</sub> Ge <sub>2</sub> . <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	7
188	Identifying the critical point of the weakly first-order itinerant magnet DyCo <sub>2</sub> with complementary magnetization and calorimetric measurements. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	17
187	Effects of mechanical grinding and low temperature annealing on crystal structure of Er <sub>5</sub> Si <sub>4</sub> . <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 556, 127-134	5.7	2
186	Crystal structure, magnetic properties, and the magnetocaloric effect of Gd <sub>5</sub> Rh <sub>4</sub> and GdRh. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 17A904	2.5	3
185	Anomalous Schottky specific heat and structural distortion in ferromagnetic PrAl <sub>2</sub> . <i>Physical Review Letters</i> , <b>2013</b> , 110, 186405	7.4	26
184	Magnetic properties of Ho <sub>1-x</sub> Er <sub>x</sub> Al <sub>2</sub> alloys. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 17E106	2.5	2
183	Unusual magnetic frustration in Lu-doped Gd <sub>5</sub> Ge <sub>4</sub> . <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 17E104	2.5	8
182	On the nature of the magnetocaloric effect of the first-order magnetostructural transition. <i>Scripta Materialia</i> , <b>2012</b> , 67, 572-577	5.6	137

181	Solid-state NMR study of Li-assisted dehydrogenation of ammonia borane. <i>Inorganic Chemistry</i> , <b>2012</b> , 51, 4108-15	5.1	13
180	Mechanochemical transformations in NaNH <sub>2</sub> -MgH <sub>2</sub> mixtures. <i>Journal of Alloys and Compounds</i> , <b>2012</b> , 513, 324-327	5.7	15
179	New magnetic configuration in paramagnetic phase of HoCo <sub>2</sub> . <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 07E315	3.5	14
178	Barocaloric effect in the magnetocaloric prototype Gd <sub>5</sub> Si <sub>2</sub> Ge <sub>2</sub> . <i>Applied Physics Letters</i> , <b>2012</b> , 101, 071906	5.4	102
177	Structure evolution and dielectric behavior of polystyrene-capped barium titanate nanoparticles. <i>Journal of Materials Chemistry</i> , <b>2012</b> ,		10
176	Doping-induced valence change in Yb <sub>5</sub> Ge <sub>4</sub> (x (Sb, Ga) x : (x)). <i>Hyperfine Interactions</i> , <b>2012</b> , 208, 59-63	0.8	3
175	Crystal structure of Tb <sub>5</sub> Ni <sub>2</sub> In <sub>4</sub> and Y <sub>5</sub> Ni <sub>2</sub> In <sub>4</sub> , and magnetic properties of Dy <sub>5</sub> Ni <sub>2</sub> In <sub>4</sub> . <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 07E122	2.5	11
174	Anisotropic magnetic deflagration in single crystals of Gd <sub>5</sub> Ge <sub>4</sub> . <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	6
173	Low-temperature crystal structure and magnetic properties of Gd <sub>5</sub> Ge <sub>3</sub> . <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	11
172	Magnetism and magnetocaloric effect of single-crystal Er <sub>5</sub> Si <sub>4</sub> under pressure. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	9
171	Magnetic and structural properties of single-crystalline Er <sub>5</sub> Si <sub>4</sub> . <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	8
170	Crystal structure and magnetic properties of R <sub>5</sub> Sn <sub>4</sub> alloys, where R is Tb, Dy, Ho, and Er. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 07A917	2.5	6
169	Effect of Ca on the microstructure and magnetocaloric effects in the La <sub>1-x</sub> CaxFe <sub>11.5</sub> Si <sub>1.5</sub> compounds. <i>Journal of Alloys and Compounds</i> , <b>2011</b> , 509, 3746-3750	5.7	12
168	First order transition in Dy <sub>5</sub> Si <sub>3</sub> Ge: Transport and thermal properties, and first principles calculations. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 07A923	2.5	4
167	Investigation of the thermochemical transformations in the LiAlH <sub>4</sub> -LiNH <sub>2</sub> system. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 10626-10634	6.7	15
166	Extraordinary Responsive Intermetallic Compounds: the R <sub>5</sub> T <sub>4</sub> Family (R = Rare Earth, T = Group 13-15 Element). <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , <b>2011</b> , 637, 1948-1956	1.3	17
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152	Magnetic properties of Er <sub>1-x</sub> DyxAl <sub>2</sub> (0 ≤ x ≤ 1) compounds in low applied fields. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 09A723	2.5	4
151	Influence of Y substitutions on the magnetism of Gd <sub>5</sub> Ge <sub>4</sub> . <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 09A908	2.5	6
150	Magnetostructural transition in Ce(Fe <sub>0.975</sub> Ga <sub>0.025</sub> ) <sub>2</sub> compound. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 09E133	2.5	3
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141	Temperature and magnetic field induced structural transformation in Si-doped : An in-field X-ray diffraction study. <i>Solid State Communications</i> , <b>2010</b> , 150, 879-883	1.6	17
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126	Magnetic spectroscopy at high pressures using X-ray magnetic circular dichroism. <i>High Pressure Research</i> , <b>2008</b> , 28, 185-192	1.6	16
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45	Magnetic correlations induced by magnetic field and temperature in Gd <sub>5</sub> Ge <sub>4</sub> . <i>Physical Review B</i> , <b>2002</b> , 65,	3.3	116
44	Magnetic properties of Gd <sub>5</sub> (Si <sub>1.5</sub> Ge <sub>2.5</sub> ) near the temperature and magnetic field induced first order phase transition. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2001</b> , 231, 135-145	2.8	18
43	Crystallography, magnetic properties and magnetocaloric effect in Gd <sub>4</sub> (BixSb <sub>1-x</sub> ) <sub>3</sub> alloys. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2001</b> , 234, 193-206	2.8	35
42	Spontaneous generation of voltage in Gd <sub>5</sub> (SixGe <sub>4-x</sub> ) during a first-order phase transition induced by temperature or magnetic field. <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	49
41	Electrical resistivity, electronic heat capacity, and electronic structure of Gd <sub>5</sub> Ge <sub>4</sub> . <i>Physical Review B</i> , <b>2001</b> , 64,	3.3	95
40	Preparation, crystal structure, magnetic and magneto-thermal properties of (Gd <sub>x</sub> R <sub>5-x</sub> )Si <sub>4</sub> , where R=Pr and Tb, alloys. <i>Journal of Applied Physics</i> , <b>2001</b> , 89, 1738	2.5	62
39	Thermodynamics of the magnetocaloric effect. <i>Physical Review B</i> , <b>2001</b> , 64,	3.3	295
38	Real and imaginary components of the alternating current magnetic susceptibility of RAl <sub>2</sub> (R=Gd, Dy, and Er) in the ferromagnetic region. <i>Journal of Applied Physics</i> , <b>2001</b> , 90, 6255-6262	2.5	60

37	Some common misconceptions concerning magnetic refrigerant materials. <i>Journal of Applied Physics</i> , <b>2001</b> , 90, 4614-4622	2.5	225
36	Titanium catalyzed solid-state transformations in LiAlH <sub>4</sub> during high-energy ball-milling. <i>Journal of Alloys and Compounds</i> , <b>2001</b> , 329, 108-114	5.7	189
35	Transformations in the Gd <sub>5</sub> (Si <sub>1.95</sub> Ge <sub>2.05</sub> ) alloy induced by the temperature and magnetic-field cycling through the first-order magnetic-martensitic phase transition. <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	61
34	Magnetic field and temperature-induced first-order transition in Gd <sub>5</sub> (Si <sub>1.5</sub> Ge <sub>2.5</sub> ): a study of the electrical resistance behavior. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2000</b> , 210, 181-188	2.8	52
33	Magnetocaloric Materials. <i>Annual Review of Materials Research</i> , <b>2000</b> , 30, 387-429		1019
32	The nonpareil R <sub>5</sub> (SixGe <sub>1-x</sub> ) <sub>4</sub> phases. <i>Journal of Alloys and Compounds</i> , <b>2000</b> , 303-304, 214-222	5.7	100
31	Concerning the transformations of Ti <sub>3</sub> Ir alloy during high-energy ball-milling. <i>Journal of Alloys and Compounds</i> , <b>2000</b> , 307, 184-190	5.7	10
30	The crystal structure of the oxygen-stabilized $\epsilon$ phase Zr <sub>3</sub> V <sub>3</sub> O <sub>x</sub> D <sub>9.6</sub> . <i>Journal of Alloys and Compounds</i> , <b>2000</b> , 309, 75-82	5.7	18
29	Solid state phase transformations in LiAlH <sub>4</sub> during high-energy ball-milling. <i>Journal of Alloys and Compounds</i> , <b>2000</b> , 313, 69-74	5.7	137
28	Preparation and electrochemical properties of some (Sc <sub>1-x</sub> Ti <sub>x</sub> )Ni alloys. <i>Journal of Alloys and Compounds</i> , <b>2000</b> , 296, 67-71	5.7	2
27	Making and breaking covalent bonds across the magnetic transition in the giant magnetocaloric material Gd <sub>5</sub> (Si <sub>2</sub> Ge <sub>2</sub> ). <i>Physical Review Letters</i> , <b>2000</b> , 84, 4617-20	7.4	332
26	Rapid solid-state transformation of tetrahedral [AlH <sub>4</sub> ] <sup>-</sup> into octahedral [AlH <sub>6</sub> ] <sup>3-</sup> in lithium aluminohydride. <i>Chemical Communications</i> , <b>2000</b> , 1665-1666	5.8	88
25	Comment on "Direct measurement of the 'Giant' adiabatic temperature change in Gd <sub>5</sub> Si <sub>2</sub> Ge <sub>2</sub> ". <i>Physical Review Letters</i> , <b>2000</b> , 85, 4190; 4192	7.4	104
24	Unusual magnetic behavior in Gd <sub>5</sub> (Si <sub>1.5</sub> Ge <sub>2.5</sub> ) and Gd <sub>5</sub> (Si <sub>2</sub> Ge <sub>2</sub> ). <i>Physical Review B</i> , <b>2000</b> , 62, R14625-R14628	5.7	82
23	Heat capacity near first order phase transitions and the magnetocaloric effect: An analysis of the errors, and a case study of Gd <sub>5</sub> (Si <sub>2</sub> Ge <sub>2</sub> ) and Dy. <i>Journal of Applied Physics</i> , <b>1999</b> , 86, 6315-6321	2.5	46
22	Magnetic-field and temperature dependencies of the electrical resistance near the magnetic and crystallographic first-order phase transition of Gd <sub>5</sub> (Si <sub>2</sub> Ge <sub>2</sub> ). <i>Physical Review B</i> , <b>1999</b> , 60, 7993-7997	3.3	138
21	The standard state of cerium. <i>Journal of Phase Equilibria and Diffusion</i> , <b>1999</b> , 20, 612-614		14
20	Magnetocaloric effect and magnetic refrigeration. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1999</b> , 200, 44-56	2.8	1168



19	Magnetic refrigeration materials (invited). <i>Journal of Applied Physics</i> , <b>1999</b> , 85, 5365-5368	2.5	172
18	Magnetocaloric effect from indirect measurements: Magnetization and heat capacity. <i>Journal of Applied Physics</i> , <b>1999</b> , 86, 565-575	2.5	649
17	The Giant Magnetocaloric Effect in Gd <sub>5</sub> (SixGe <sub>1-x</sub> ) <sub>4</sub> Materials for Magnetic Refrigeration <b>1998</b> , 1729-1736		62
16	Magnetic phase transitions and the magnetothermal properties of gadolinium. <i>Physical Review B</i> , <b>1998</b> , 57, 3478-3490	3.3	723
15	The correlation of the magnetic properties and the magnetocaloric effect in (Gd <sub>1-x</sub> Er <sub>x</sub> )NiAl alloys. <i>Journal of Applied Physics</i> , <b>1998</b> , 84, 5677-5685	2.5	108
14	Influence of the crystalline electrical field on the magnetocaloric effect of DyAl <sub>2</sub> ,ErAl <sub>2</sub> , and DyNi <sub>2</sub> . <i>Physical Review B</i> , <b>1998</b> , 58, 12110-12116	3.3	144
13	Tunable magnetic regenerator alloys with a giant magnetocaloric effect for magnetic refrigeration from ~20 to ~290 K. <i>Applied Physics Letters</i> , <b>1997</b> , 70, 3299-3301	3.4	628
12	Giant Magnetocaloric Effect in Gd <sub>5</sub> (Si <sub>2</sub> Ge <sub>2</sub> ). <i>Physical Review Letters</i> , <b>1997</b> , 78, 4494-4497	7.4	334 <sup>6</sup>
11	Experimental device for studying the magnetocaloric effect in pulse magnetic fields. <i>Review of Scientific Instruments</i> , <b>1997</b> , 68, 2432-2437	1.7	63
10	Novel Thermal Effects at the First Order Magnetic Phase Transition in Erbium, and a Comparison with Dysprosium. <i>Physical Review Letters</i> , <b>1997</b> , 78, 4281-4284	7.4	41
9	Phase relationships and crystallography in the pseudobinary system Gd <sub>5</sub> Si <sub>4</sub> ?Gd <sub>5</sub> Ge <sub>4</sub> . <i>Journal of Alloys and Compounds</i> , <b>1997</b> , 260, 98-106	5.7	266
8	A 3B50 K fast automatic small sample calorimeter. <i>Review of Scientific Instruments</i> , <b>1997</b> , 68, 4196-4207	1.7	118
7	Effect of alloying on the giant magnetocaloric effect of Gd <sub>5</sub> (Si <sub>2</sub> Ge <sub>2</sub> ). <i>Journal of Magnetism and Magnetic Materials</i> , <b>1997</b> , 167, L179-L184	2.8	277
6	Superheating and other unusual observations regarding the first order phase transition in Dy. <i>Scripta Materialia</i> , <b>1996</b> , 35, 843-848	5.6	28
5	Solid state electrotransport purification of dysprosium. <i>Journal of Alloys and Compounds</i> , <b>1995</b> , 226, 1905-196	5.7	15
4	New type of magnetocaloric effect: Implications on low-temperature magnetic refrigeration using an Ericsson cycle. <i>Applied Physics Letters</i> , <b>1994</b> , 64, 2739-2741	3.4	80
3	(Dy <sub>0.5</sub> Er <sub>0.5</sub> )Al <sub>2</sub> : A large magnetocaloric effect material for low-temperature magnetic refrigeration. <i>Applied Physics Letters</i> , <b>1994</b> , 64, 253-255	3.4	72
2	Influence of Heat Treatment on the Structure and Magnetic Properties of Gd <sub>5</sub> Sn <sub>4</sub> Alloy for Magnetic Refrigeration	3.3	331-338

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