Victor A L'vov

List of Publications by Year
in descending order

60	1,125	430754	434063
papers	citations	18 h-index	31 g-index

60	60	60	671
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Superelasticity in high-temperature Niâ€“Mnâ€“Ga alloys. Journal of Applied Physics, 2003, 93, 2394-2399.	1.1	140
2	Ferromagnetism of thermoelastic martensites:â€ƒTheory and experiment. Physical Review B, 2003, 67, .	1.1	97
3	Magnetic-field-induced superelasticity of ferromagnetic thermoelastic martensites: Experiment and modeling. Physical Review B, 2004, 69, .	1.1	91
4	A phenomenological model of ferromagnetic martensite. Journal of Physics Condensed Matter, 1998, 10, 4587-4596.	0.7	67
5	Thermodynamics of martensitic transformations affected by hydrostatic pressure. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1996, 73, 999-1008.	0.7	55
6	Magnetoelastic Nature of Ferromagnetic Shape Memory Effect. Materials Science Forum, 0, 583, 1-20.	0.3	55
7	Statistical model of magnetostrain effect in martensite. Journal of Magnetism and Magnetic Materials, 2003, 265, 142-151.	1.0	45
8	Hysteretic and anhysteretic tensile stressâ€“strain behavior of Niâ€“Fe(Co)â€“Ga single crystal: Experiment and theory. Acta Materialia, 2014, 66, 79-85.	3.8	36
9	Transformation Volume Effects on Shape Memory Alloys. Metals, 2013, 3, 237-282.	1.0	33
10	Martensitic phase transition with two-component order parameter in a stressed cubic crystal. Phase Transitions, 1994, 47, 9-21.	0.6	30
11	Destabilization of Niâ€“Mnâ€“Ga martensite: Experiment and theory. Acta Materialia, 2012, 60, 1587-1593.	3.8	29
12	Temperature dependent magnetostrains in polycrystalline magnetic shape memory Heusler alloys. Journal of Alloys and Compounds, 2013, 577, S305-S308.	2.8	27
13	Theoretical description of magnetocaloric effect in the shape memory alloy exhibiting metamagnetic behavior. Journal of Applied Physics, 2016, 119, .	1.1	24
14	Stressâ€“strain behaviour of Niâ€“Mnâ€“Ga alloys: experiment and modelling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 349-352.	2.6	23
15	The role of anisotropic thermal expansion of shape memory alloys in their functional properties. Acta Materialia, 2009, 57, 5605-5612.	3.8	20
16	Complete theoretical analysis of the Kaplan-Solomon-Mott mechanism of spin-dependent recombination in semiconductors. Physical Review B, 1996, 54, 2571-2577.	1.1	19
17	Entropy change of martensitic transformation in ferromagnetic shape memory alloys. Acta Materialia, 2013, 61, 1764-1772.	3.8	19
18	Time-dependent magnetostrain effect and stress relaxation in the martensitic phase of Niâ€“Mnâ€“Ga. Journal of Magnetism and Magnetic Materials, 2002, 241, 287-291.	1.0	18

#	Article	IF	Citations
19	Stabilizing internal stress as the thermodynamic factor of martensite aging effects. Acta Materialia, 2011, 59, 3593-3601.	3.8	18
20	Analysis of mechanical and magnetic instabilities in Ni-Mn-Ga single crystals. Journal of Applied Physics, 2003, 93, 8641-8643.	1.1	17
21	Magnetic indication of the stress-induced martensitic transformation in ferromagnetic Niâ€“Mnâ€“Ga alloy. Journal of Magnetism and Magnetic Materials, 2006, 302, 387-390.	1.0	17
22	Magnetic and nonmagnetic contributions to the heat capacity of metamagnetic shape memory alloy. Journal of Applied Physics, 2017, 121, .	1.1	17
23	Fundamentals of magnetocaloric effect in magnetic shape memory alloys. Handbook of Magnetic Materials, 2019, 28, 1-45.	0.6	16
24	The Symmetry-Conforming Theory of Martensite Aging. Materials Science Forum, 2009, 635, 13-19.	0.3	15
25	Magnetic Anisotropy of Ferromagnetic Martensites. Materials Science Forum, 0, 684, 31-47.	0.3	15
26	Interdependence between the magnetic properties and lattice parameters of Niâ€“Mnâ€“Ga martensite. Journal of Physics Condensed Matter, 2004, 16, 8345-8352.	0.7	14
27	Magnetic susceptibility of martensitic Niâ€“Mnâ€“Ga film. Journal of Applied Physics, 2007, 101, 053909.	1.1	14
28	Transformation of twinned<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ni</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:mtext>MnGa</mml:mtext></mml:mrow></mml:math> martensite in a rotating magnetic field: Theory and ex. Physical Review B, 2010, 81, .	1.1	12
29	Internal pressure as a key thermodynamic factor to obtain high-temperature superelasticity of shape memory alloys. Materials Letters, 2018, 210, 252-254.	1.3	10
30	Strong influence of ferromagnetic ordering and internal pressure on the elastic modulus of shape memory alloy. Journal of Magnetism and Magnetic Materials, 2013, 333, 108-113.	1.0	9
31	Magnetocaloric Effect Caused by Paramagnetic Austeniteâ€“Ferromagnetic Martensite Phase Transformation. Metals, 2019, 9, 11.	1.0	9
32	Thermoelastic behaviour of martensitic alloy in the vicinity of critical point in the stressâ€“temperature phase diagram. Phase Transitions, 2010, 83, 293-301.	0.6	8
33	Coupled magnetoelastic waves in ferromagnetic shape-memory alloys. Physical Review B, 2011, 84, .	1.1	8
34	Modelling of hysteresis loops taken during the stress- and temperature-induced martensitic transformations. Phase Transitions, 2013, 86, 796-810.	0.6	8
35	Elastically driven metamagnetic-like phase transformations of shape memory alloys. Journal Physics D: Applied Physics, 2016, 49, 105001.	1.3	8
36	Elastic properties of crystals below the point of ferroelastic phase transition with a multicomponent order parameter. Phase Transitions, 1996, 56, 43-60.	0.6	6

#	Article	IF	Citations
37	Magnetization curves for tetragonal martensites: Experiments and modeling. Journal of Applied Physics, 2006, 99, 103906.	1.1	6
38	Evaluation of Magnetostriction of the Single-Variant Ni-Mn-Ga Martensite. Materials Science Forum, 0, 635, 131-136.	0.3	6
39	Influence of volume magnetostriction on the thermodynamic properties of Ni-Mn-Ga shape memory alloys. Journal of Applied Physics, 2015, 118, .	1.1	6
40	Specific heat of shape memory alloys with soft elastic moduli. Journal of Applied Physics, 2011, 109, 013526.	1.1	5
41	Impact of the volume change on the ageing effects in Cuâ€“Alâ€“Ni martensite: experiment and theory. Journal of Physics Condensed Matter, 2013, 25, 335402.	0.7	5
42	Magnetically driven magnetostructural transformations of shape memory alloys. Journal Physics D: Applied Physics, 2016, 49, 095002.	1.3	5
43	Large Anhysteretic Deformation of Shape Memory Alloys at Postcritical Temperatures and Stresses. Physica Status Solidi (B): Basic Research, 2018, 255, 1700273.	0.7	5
44	Inverse magnetocaloric effect in the solids undergoing ferromagnetic â€“ antiferromagnetic phase transition: Landau theory applied to Fe-Rh alloys. Journal of Magnetism and Magnetic Materials, 2021, 517, 167269.	1.0	5
45	Temperature dependence of mechanical and magnetic curves in Ni/sub 2/MnGa single crystals. IEEE Transactions on Magnetics, 2003, 39, 3399-3401.	1.2	4
46	Magnetic Shape Memory Materials with Improved Functional Properties: Scientific Aspects. Springer Series in Materials Science, 2016, , 1-40.	0.4	4
47	Enhancement of deformation of Niâ€“Mnâ€“Ga martensite by dynamic loading. Acta Materialia, 2008, 56, 802-808.	3.8	3
48	Influence of aging and thermomechanical cycling on the magnetostriction and magnetic shape memory effect in martensitic alloy. Journal Physics D: Applied Physics, 2015, 48, 395002.	1.3	3
49	Pulsed magnetic field-induced changes in the meso- and nanostructure of Co49Ni21Ga30 martensite. Functional Materials Letters, 2017, 10, 1750044.	0.7	3
50	Landau theory for the phase transitions of interstitial hydrogen in strained vanadium. Physical Review B, 2014, 89, .	1.1	2
51	Martensitic transformation in shape memory crystal with defects: Monte Carlo simulations and Landau theory. Physica Status Solidi (B): Basic Research, 2015, 252, 2309-2316.	0.7	2
52	Magnetovolume coupling in transformation behaviour of Mnâ€“Niâ€“Sn metamagnetic shape memory alloys. Journal Physics D: Applied Physics, 2018, 51, 355001.	1.3	2
53	Ferromagnetic resonance in nanotwinned Niâ€“Mnâ€“Ga film undergoing martensitic transformation. Low Temperature Physics, 2020, 46, 615-621.	0.2	2
54	Influence of incorporated nanoparticles on superelastic behavior of shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 776, 139025.	2.6	2

#	Article	IF	Citations
55	Thermal phonons affecting the long-time evolution of Niâ€“Mnâ€“Ga martensite under magnetic field. Journal of Magnetism and Magnetic Materials, 2007, 309, 244-250.	1.0	1
56	Temperature-dependent magnetostriction as the key factor for martensite reorientation in magnetic field. Journal Physics D: Applied Physics, 2016, 49, 355005.	1.3	1
57	Entropy Change Caused by Martensitic Transformations of Ferromagnetic Shape Memory Alloys. Metals, 2017, 7, 509.	1.0	1
58	Theory of giant magnetocaloric effect in the shape memory alloy undergoing magnetostuctural phase transition. Low Temperature Physics, 2020, 46, 764-767.	0.2	1
59	Determination of magnetic, electronic and lattice contributions to low-temperature specific heat: Procedure and its application to metamagnetic alloys. Journal of Magnetism and Magnetic Materials, 2022, 541, 168549.	1.0	1
60	Influence of different mechanisms of martensite aging on the features of martensitic transformations. Physica Status Solidi (B): Basic Research, 2015, 252, 2758-2761.	0.7	0