Sergey Smirnov

List of Publications by Year in descending order

34 papers	226 citations	1040056 9 h-index	1125743 13 g-index
34 all docs	34 docs citations	34 times ranked	166 citing authors

#	Article	IF	Citations
1	Low temperature micromechanical properties of nanocrystalline CoCrFeNiMn high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 828, 142116.	5.6	8
2	Plastic Flow of Solid 4He and 3He at Low Temperatures (Review Article). Low Temperature Physics, 2019, 45, 964-974.	0.6	0
3	Novel features of pressure relaxation in nonequilibrium helium crystals. Low Temperature Physics, 2018, 44, 938-945.	0.6	0
4	Computer modeling and analytical description of structural defects in two-dimensional crystals of bounded sizes: Free boundary, dislocations, and crowdions. Low Temperature Physics, 2018, 44, 688-695.	0.6	4
5	Pressure relaxation and diffusion of vacancies in rapidly grown helium crystals. Low Temperature Physics, 2018, 44, 304-316.	0.6	4
6	Tunneling-thermally activated vacancy diffusion mechanism in quantum crystals. Low Temperature Physics, 2017, 43, 1163-1171.	0.6	1
7	Plastic flow of solid 3He through a porous elastic film. Low Temperature Physics, 2016, 42, 1075-1093.	0.6	7
8	Dislocations and crowdions in two-dimensional crystals. Part III: Plastic deformation of the crystal as a result of defect movement and defect interaction with the field of elastic stresses. Low Temperature Physics, 2016, 42, 207-218.	0.6	17
9	Thermally activated and quantum plasticity of solid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:math>at temperatures below 0.5 K. Physical Review B, 2015, 92, .	3.2	14
10	Dislocations and crowdions in two-dimensional crystals. II. Elastic fields and intrinsic energies in a 2D hexagonal lattice. Low Temperature Physics, 2015, 41, 207-212.	0.6	3
11	Creep in solid 4He at temperatures below 1â€‰K. Low Temperature Physics, 2015, 41, 169-176.	0.6	12
12	Experimental investigation and comparative analysis of Ni-18.75 at. % Fe alloy plasticity, in coarse-grained and nano-crystalline states in the 4.2â€“350â€‰K temperature range. Low Temperature Physics, 2014, 40, 1104-1111.	0.6	6
13	Dislocations and crowdions in two-dimensional crystals. I. Atomic-lattice models and a continuum description of these defects in elastic anisotropic 2D media. Low Temperature Physics, 2014, 40, 1063-1076.	0.6	5
14	Temperature dependent mechanical properties and thermal activation plasticity of nanocrystalline and coarse grained Ni-18.75 at.% Fe alloy. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012105.	0.6	8
15	Variation of the deformation mechanisms in a nanocrystalline Pdâ€“10at.% Au alloy at room and cryogenic temperatures. International Journal of Plasticity, 2014, 60, 40-57.	8.8	14
16	The mechanics of 2D crystals: A change from the atomic-lattice description to equations of the elasticity theory. Low Temperature Physics, 2013, 39, 534-545.	0.6	6
17	Thermal activation plasticity of nanocrystalline Niâ€“18.75 at. % Fe alloy in temperature range 4.2â€“350â€‰K. Low Temperature Physics, 2012, 38, 239-247.	0.6	16
18	Strain hardening and microstructure evolution during uniaxial compression of ultrafine grained zirconium at temperatures of 4.2â€“300â€‰K. Low Temperature Physics, 2011, 37, 609-617.	0.6	8

#	Article	IF	Citations
19	Strain-Rate Sensitivity and Failure Peculiarities in Compression of the Nanocrystalline Ni-20ÂPct Fe Alloy at Low Temperatures. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 848-853.	2.2	6
20	Anomalous decrease of propagation rate of the macroscopic shear band in the Zr-based bulk metallic glasses at temperatures 170 and 77K. Journal of Alloys and Compounds, 2010, 495, 345-347.	5.5	3
21	Mechanical characteristics, failure regularities, and dimple structures on failure surfaces of Tiâ€“6Alâ€“4V â€˜ELIâ€™ ultrafine-grained alloy at temperatures from 300 to 4.2K. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 503, 106-109.	5.6	10
22	Mechanical properties of nanocrystalline Ni-20%Fe alloy at temperatures from 300 to 4.2K. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 503, 110-113.	5.6	9
23	Crowdions in elasticity theory. Crystallography Reports, 2009, 54, 985-992.	0.6	2
24	Microstructure features of failure and mechanical properties of ultra-fine grained Tiâ€“6ALâ€“4V ELI alloy at 300â€“77ÂK. International Journal of Mechanics and Materials in Design, 2008, 4, 189-195.	3.0	4
25	Microstructural features of failure surfaces and low-temperature mechanical properties of Ti-6Al-4V ELI ultra-fine grained alloy. Strength of Materials, 2008, 40, 71-74.	0.5	2
26	Temperature-dependent mechanical behavior of a nanostructured Niâ€“Fe alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 493, 93-96.	5.6	18
27	Mechanical properties of ultrafine-grain zirconium in the temperature range 4.2â€“300K. Low Temperature Physics, 2008, 34, 969-975.	0.6	11
28	Low-temperature plasticity anomaly in the bulk metallic glass Zr64.13Cu15.75Ni10.12Al10. Low Temperature Physics, 2008, 34, 675-677.	0.6	19
29	Acoustic resonances of relaxation nature in CsI single crystals in the temperature range 2â€“20K. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 442, 151-155.	5.6	0
30	High-frequency polariton waves on a metalâ€“vacuum interface. Low Temperature Physics, 2005, 31, 77-84.	0.6	0
31	Fractional and split crowdions in complex crystal structures. Low Temperature Physics, 2001, 27, 233-244.	0.6	4
32	Crowdions in atomic cryocrystals and metals with fcc and bcc lattices. Low Temperature Physics, 2001, 27, 958-966.	0.6	3
33	Title is missing!. European Physical Journal D, 1999, 49, 1091-1096.	0.4	1
34	Internal friction peak in CsI single crystal at liquid helium temperatures. Low Temperature Physics, 1998, 24, 904-907.	0.6	1