Elena D Tabachnikova

List of Publications by Year
in descending order

69 papers	1,143 citations	430442 18 h-index	414034 32 g-index
70 all docs	70 docs citations	70 times ranked	1130 citing authors

#	Article	IF	Citations
1	Fatigue behavior of nanocrystalline metals and alloys. International Journal of Fatigue, 2005, 27, 1147-1158.	2.8	241
2	Shear band melting and serrated flow in metallic glasses. Applied Physics Letters, 2008, 93, .	1.5	109
3	Temperature Effects on Deformation and Serration Behavior of High-Entropy Alloys (HEAs). Jom, 2014, 66, 2002-2008.	0.9	72
4	New features of the low temperature ductile shear failure observed in bulk amorphous alloys. Journal of Materials Science, 2000, 35, 4449-4457.	1.7	57
5	Deformation-induced phase transformation of Co20Cr26Fe20Mn20Ni14 high-entropy alloy during high-pressure torsion at 77 K. Materials Letters, 2017, 202, 86-88.	1.3	55
6	Mechanical properties of the CoCrFeNiMnVx high entropy alloys in temperature range 4.2â€“300ÂK. Journal of Alloys and Compounds, 2017, 698, 501-509.	2.8	52
7	Microstructure and Mechanical Properties of High-Entropy Alloy Co20Cr26Fe20Mn20Ni14 Processed by High-Pressure Torsion at 77â€‰K and 300â€‰K. Scientific Reports, 2018, 8, 11074.	1.6	45
8	Microstructure and mechanical properties of high purity nanostructured titanium processed by high pressure torsion at temperatures 300 and 77ÂK. Journal of Materials Science, 2013, 48, 4689-4697.	1.7	32
9	Cryogenic equal channel angular pressing of commercially pure titanium: microstructure and properties. Journal of Materials Science, 2014, 49, 6803-6812.	1.7	32
10	Mechanical properties and thermally activated plasticity of the Ti30Zr25Hf15Nb20Ta10 high entropy alloy at temperatures 4.2â€“350 K. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 710, 136-141.	2.6	32
11	The contribution of grain boundary dislocations to the plastic deformation of nanostructured titanium from the SD-effect of the yield stress. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 309-310, 524-527.	2.6	29
12	Low-temperature deformation and fracture of bulk nanostructural titanium obtained by intense plastic deformation using equal channel angular pressing. Low Temperature Physics, 2002, 28, 864-874.	0.2	23
13	Mechanical properties of the high-entropy alloy Al0.5CoCrCuFeNi in various structural states at temperatures of 0.5â€“300â€‰K. Low Temperature Physics, 2017, 43, 1108-1118.	0.2	23
14	Plastic dynamics of the Al0.5CoCrCuFeNi high entropy alloy at cryogenic temperatures: Jerky flow, stair-like fluctuation, scaling behavior, and non-chaotic state. Applied Physics Letters, 2017, 111, .	1.5	23
15	Anomalous Evolution of Strength and Microstructure of Highâ€Entropy Alloy CoCrFeNiMn after Highâ€Pressure Torsion at 300 and 77â€‰K. Advanced Engineering Materials, 2020, 22, 1900752.	1.6	23
16	Possible local superplasticity of amorphous metallic alloys in the catastrophic shear band under low temperature ductile shear failure. Scripta Materialia, 1996, 35, 781-784.	2.6	20
17	Effect of carbon content and annealing on structure and hardness of CrFe2NiMnV0.25 high-entropy alloys processed by high-pressure torsion. Journal of Materials Science, 2018, 53, 11813-11822.	1.7	20
18	Low-temperature plasticity anomaly in the bulk metallic glass Zr64.13Cu15.75Ni10.12Al10. Low Temperature Physics, 2008, 34, 675-677.	0.2	19

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19	Temperature-dependent mechanical behavior of a nanostructured Niâ€“Fe alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 493, 93-96.	2.6	18
20	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.	0.2	16
21	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.	4.1	14
22	Failure crack orientation at ductile shear fracture of Fe80â˜x Ni x B20 metallic glass ribbons. Journal of Materials Science, 1990, 25, 1598-1602.	1.7	12
23	Mechanical properties of ultrafine-grain zirconium in the temperature range 4.2â€“300K. Low Temperature Physics, 2008, 34, 969-975.	0.2	11
24	Low-temperature fracture toughness of some iron, nickel-based metallic glass ribbons. Journal of Materials Science, 1987, 22, 3732-3736.	1.7	10
25	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.	2.6	10
26	Thermally activated deformation of nanocrystalline and coarse grained CoCrFeNiMn high entropy alloy in the temperature range 4.2â€“350 K. Low Temperature Physics, 2018, 44, 976-982.	0.2	10
27	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.	2.6	9
28	Unraveling the discontinuous plastic flow of a Co-Cr-Fe-Ni-Mo multiprincipal-element alloy at deep cryogenic temperatures. Physical Review Materials, 2021, 5, .	0.9	9
29	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.	0.2	8
30	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.	0.3	8
31	Low Temperature Ductile Shear Failure of Zr_{41.2}Ti_{13.8}Ni₁₀Cu_{12.5}Be<sub>22 and Cu₅₀Zr₃₅Ti₈Hf₅Ni<sub>2</sub&g Bulk Amorphous Alloys. Materials Science Forum, 2000, 343-346, 197-202.	0.3	7
32	The effect, studied by SANS, of rapid quenching from ambient to subambient temperatures on the microstructure of some metallic glass ribbons. Applied Physics A: Materials Science and Processing, 2002, 74, s1131-s1135.	1.1	7
33	Effect of counterpressure during equal-channel angular pressing on nanoporosity formation in ultrafine-grained copper. Technical Physics Letters, 2011, 37, 767-768.	0.2	7
34	Fracture toughness of amorphous Fe40Ni40B20 ribbons: strain rate dependence. Journal of Materials Science Letters, 1990, 9, 529-531.	0.5	6
35	Microscopic mechanism of the effect of composition and topological orders of metal glasses on plastic shear resistance. Low Temperature Physics, 1997, 23, 1004-1009.	0.2	6
36	Low Temperature Mechanical Properties of Different Commercial Purity Nanostructured Titanium Processed by ECA Pressing. Materials Science Forum, 2006, 503-504, 633-638.	0.3	6

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37	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.	1.1	6
38	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.	0.2	6
39	Microstructure and Properties of Nanostructured Zirconium Processed by High Pressure Torsion. Materials Science Forum, 2010, 667-669, 433-438.	0.3	5
40	Temperature and Strain Rate Effects on Workâ€Hardening of KCl Single Crystals. Crystal Research and Technology: Journal of Experimental and Industrial Crystallography, 1974, 9, 1187-1197.	0.3	4
41	Monotonic and jumpwise deformation of bulk amorphous Zr46.8Ti8Cu7.5Ni10Be27.5 alloy in nanoindentation. Crystallography Reports, 2005, 50, 291-296.	0.1	4
42	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.	1.7	4
43	Mechanical behavior of nanostructured metals and alloys in the 300â€“4.2 K temperature interval. International Journal of Materials Research, 2007, 98, 339-345.	0.1	4
44	Magnetic and electrical investigations of Fe85-xCoxB15 metallic glasses. Applied Physics A: Materials Science and Processing, 2004, 79, 1947-1953.	1.1	3
45	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.	2.8	3
46	Comparison of different dislocation representations of the yield strength of a monocrystal. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1984, 27, 493-498.	0.0	2
47	Low Temperature Plasticity and Failure of a Bulk Cu₅₀Zr₃₅Ti₈Hf₅Ni<sub>2</sub&g Metallic Glass. Materials Science Forum, 1996, 225-227, 107-112.		
48	Singularity of Some Low Temperature Physical Properties of Fe_{100-x}B_x Metallic Glasses of the Eutectic Composition. Materials Science Forum, 1996, 225-227, 21-26.	0.3	2
49	On extending dislocation notions to the amorphous state of solids. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 309-310, 544-547.	2.6	2
50	Jump-Like Deformation of Zr_{46,8}Ti₈Cu_{7,5}Ni₁₀Be_{27,5} Bulk Amorphous Alloy. Journal of Metastable and Nanocrystalline Materials, 2005, 24-25, 89-92.	0.1	2
51	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.	0.2	2
52	On Causes of High Local Plasticity of a Bulk Cu₅₀Zr₃₅Ti₈Hf₅Ni₂ Amorphous Alloy during Low Temperature Shear Failure under Compression. Key Engineering Materials, 1995, 97-98, 103-108.	0.4	1
53	Anomalies of Mechanical and Physical Properties of the Fe₈₃B₁₇ Eutectic Metallic Glass and their Connection with the Peculiarities of Nanoclusterous Structure. Materials Science Forum, 2000, 343-346, 43-48.	0.3	1
54	Influence of Thermal Treatment of Ni-P Melt on Structure of Amorphous Alloys. European Physical Journal D, 2004, 54, 133-136.	0.4	1

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55	Failure of Zr50Ti16.5Cu15Ni18.5 amorphous metallic ribbon. Strength of Materials, 2008, 40, 20-23.	0.2	1
56	Structure and properties of nanostructured Cobalt processed by high pressure torsion at temperatures of 300 and 77 K. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012103.	0.3	1
57	Conchoidal Fracture of Zr- and Mg-Based Amorphous Glass. Materials Science Forum, 2017, 891, 504-508.	0.3	1
58	Equal channel angular pressing at temperatures of 77-575 K of Titanium Grade 2: Microstructure and mechanical properties. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012071.	0.3	1
59	Temperature dependence for the compressive strength of materials prepared by impact compression of rapidly quenched powders. Combustion, Explosion and Shock Waves, 1989, 24, 499-502.	0.3	0
60	Effect of compositional order upon ductile shear failure and structural relaxation of Fe(80â^'x)NixB20 metallic glass ribbons. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 355, 88-95.	2.6	0
61	Strength and Plasticity of Ultra-Fine Grained Zirconium at Low Temperatures. Materials Science Forum, 2008, 584-586, 452-457.	0.3	0
62	Low Temperature Failure of Fe₇₆Ni₂Si₉B₁₃ Compacted from Amorphous Glass Powder. Key Engineering Materials, 0, 409, 358-361.	0.4	0
63	Local Deformation of Microsized Amorphous Powder at Low Temperatures. Key Engineering Materials, 0, 586, 210-213.	0.4	0
64	Fragmentation of Co-Fe-Ta-B Soft Magnetic Amorphous Alloy. Acta Physica Polonica A, 2015, 127, 558-560.	0.2	0
65	Generation of Nanoscale Stripes at Failure of Amorphous Metals. Key Engineering Materials, 2015, 662, 221-224.	0.4	0
66	Temperature Dependent Yield Strength, Strain Hardening and Failure of the CoCrFeNiMnV_x High Entropy Alloys. Materials Science Forum, 2017, 891, 438-443.	0.3	0
67	Deformation and Failure of Ultrafine-Grained Cu at Subambient Temperature. Materials Science Forum, 0, 891, 249-253.	0.3	0
68	Low Temperature Failure of Al₉₀Fe₇Ta₃Amorphous Alloys. Acta Physica Polonica A, 2010, 118, 823-824.	0.2	0
69	Physical-Mechanical Properties of the 54.6Niâ€“11Feâ€“30Crâ€“3.5Nbâ€“0.5Tiâ€“0.4C and 58Niâ€“11Feâ€“30Crâ€“0.5Nbâ€“0.5Ti Alloys in the Low-Temperature Region. Metallofizika I Noveishie Tekhnologii, 2018, 40, 1051-1067.	0.2	0