Roni Z Shneck

List of Publications by Year
in descending order

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81	2,491	331670 21	206112 48
papers	citations	h-index	g-index

84	84	84	2931
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Self-Assembled Peptide Nanotubes Are Uniquely Rigid Bioinspired Supramolecular Structures. Nano Letters, 2005, 5, 1343-1346.	9.1	392
2	Fatigue of AlSi10Mg specimens fabricated by additive manufacturing selective laser melting (AM-SLM). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 704, 229-237.	5.6	216
3	A Stiffness Switch in Human Immunodeficiency Virus. Biophysical Journal, 2007, 92, 1777-1783.	0.5	215
4	Heat treatment effect on the mechanical properties and fracture mechanism in AlSi10Mg fabricated by additive manufacturing selective laser melting process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 729, 310-322.	5.6	148
5	Selfâ€Assembled Organic Nanostructures with Metallicâ€Like Stiffness. Angewandte Chemie - International Edition, 2010, 49, 9939-9942.	13.8	128
6	Mechanical Properties of Murine Leukemia Virus Particles: Effect of Maturation. Biophysical Journal, 2006, 91, 767-774.	0.5	126
7	On the effect of shot-peening on fatigue resistance of AlSi10Mg specimens fabricated by additive manufacturing using selective laser melting (AM-SLM). Additive Manufacturing, 2018, 21, 458-464.	3.0	123
8	Thermal stability of nanostructured superhard coatings: A review. Surface and Coatings Technology, 2007, 201, 6136-6142.	4.8	119
9	High-temperature mechanical properties of AlSi10Mg specimens fabricated by additive manufacturing using selective laser melting technologies (AM-SLM). Additive Manufacturing, 2018, 24, 257-263.	3.0	90
10	Measurement of the mechanical properties of isolated tectorial membrane using atomic force microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14790-14795.	7.1	84
11	Explicit Gibbs free energy equation of state for solids. Journal of Physics and Chemistry of Solids, 2008, 69, 1912-1922.	4.0	68
12	Application of CALPHAD to high pressures. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2007, 31, 173-185.	1.6	67
13	Effect of grain size on the static and dynamic mechanical properties of magnesium aluminate spinel (MgAl 2 O 4). Journal of the European Ceramic Society, 2017, 37, 3417-3424.	5.7	40
14	Growth and characterization of PbTe films by magnetron sputtering. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 106, 89-94.	3.5	29
15	Magnesium- and intermetallic alloys-based hydrides for energy storage: modelling, synthesis and properties. Progress in Energy, 2022, 4, 032007.	10.9	29
16	Tailoring Microstructure and Mechanical Properties of Additively-Manufactured Ti6Al4V Using Post Processing. Materials, 2021, 14, 658.	2.9	26
17	Thermodynamic analysis of high-pressure phase equilibria in Feâ€“Si alloys, implications for the inner-core. Physics of the Earth and Planetary Interiors, 2009, 172, 289-298.	1.9	25
18	Surface treatment of tantalum to improve its corrosion resistance. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 302, 128-134.	5.6	23

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19	Vibrational spectra of sodium gadolinium tungstate NaGd(WO4)2 single crystals: Observation of spatial dispersion. Vibrational Spectroscopy, 2009, 49, 110-117.	2.2	23
20	Tribological properties of duplex treated TiN/TiCN coatings on plasma nitrided PH15-5 steel. Surface and Coatings Technology, 2007, 201, 6171-6175.	4.8	22
21	Sodium gadolinium tungstate NaGd(WO4)2: Growth, crystallography, and some physical properties. Journal of Crystal Growth, 2007, 305, 257-264.	1.5	22
22	Sound-Evoked Deflections of Outer Hair Cell Stereocilia Arise from Tectorial Membrane Anisotropy. Biophysical Journal, 2008, 94, 4570-4576.	0.5	21
23	Universal strainâ€“temperature dependence of dislocation structure evolution in face-centered-cubic metals. Acta Materialia, 2011, 59, 5342-5350.	7.9	21
24	Thermochemistry of (<scp><scp>Ca_xSr_{1â€x}</scp></scp>)<scp><scp>TiO₃</scp></scp>, (<scp><scp>Ba_xSr_{1â€x}</scp></scp>)<scp><scp>TiO₃</scp></scp>, and (<scp><scp>Ba_xCa_{1â€x}</scp></scp>)<scp><scp>TiO₃</scp></scp> Perovskite Solid Solutions. Journal of the American Ceramic Society, 2012, 95, 1717-1726.	3.8	20
25	Thermodynamic modeling of Alâ€“Uâ€“X (X = Si,Zr). Journal of Nuclear Materials, 2015, 464, 170-184.	2.7	19
26	Estimation of yield and ultimate stress using the small punch test method applied to non-standard specimens: A computational study validated by experiments. International Journal of Mechanical Sciences, 2018, 135, 484-498.	6.7	17
27	Development of AIIBVI Semiconductors Doped with Cr for IR Laser Application. Physica Status Solidi (B): Basic Research, 2002, 229, 395-398.	1.5	15
28	The spinodal constraint on the equation of state of expanded fluids. Journal of Physics Condensed Matter, 2003, 15, 2991-3001.	1.8	15
29	Internal stress in TiAlBN at high temperatures. Surface and Coatings Technology, 2007, 201, 6161-6166.	4.8	14
30	Refractive index dispersion and anisotropy in NaGd(WO4)2 single crystal. Optical Materials, 2008, 30, 1251-1256.	3.6	14
31	Diffusion and trapping of hydrogen due to elastic interaction with Î-Ni3Ti precipitates in Custom 465Â® stainless steel. International Journal of Hydrogen Energy, 2019, 44, 31610-31620.	7.1	14
32	Fundamentals of the anisotropy of elastic interactions between dilating particles in a cubic material. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1992, 65, 797-814.	0.6	13
33	Nanometric size dependent phase diagram of Biâ€“Sn. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2016, 53, 136-145.	1.6	13
34	Microstructural shape evolution of Î³â€² in nickel-based superalloys by stress-assisted diffusion. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 383-398.	0.6	12
35	STM verification of the reduction of the Young's modulus of CdS nanoparticles at smaller sizes. Surface Science, 2014, 630, 89-95.	1.9	12
36	On the entropic nucleation barrier in a martensitic transformation. Philosophical Magazine, 2015, 95, 1282-1308.	1.6	12

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37	Structure and morphology of pulsed laser depos ited boron carbide films: Influence of deposition geometry. Journal of Applied Physics, 2007, 102, 104309.	2.5	11
38	Steel to titanium solid state joining displaying superior mechanical properties. Journal of Materials Processing Technology, 2014, 214, 2884-2890.	6.3	11
39	Electrochemically enhanced surface plasticity of steels. Applied Surface Science, 2016, 388, 49-56.	6.1	11
40	The strain energy and shape evolution of hydrides precipitated at free surfaces of metals. Journal of Alloys and Compounds, 2008, 452, 325-335.	5.5	10
41	Elastic fields generated by a semi-spherical hydride particle on a free surface of a metal and their effect on its growth. Journal of Alloys and Compounds, 2011, 509, 4025-4034.	5.5	10
42	Development of a High Perfomance Gas Thermoelectric Generator (TEG) with Possibible Use of Waste Heat. Energies, 2022, 15, 3960.	3.1	9
43	Properties of nanostructured magnesium metatitanate prepared by the sol-gel technique. Scripta Materialia, 1996, 7, 527-533.	0.5	8
44	Anisotropic coarsening: the effect of interfacial properties on the shape of the grains. Modelling and Simulation in Materials Science and Engineering, 2000, 8, 815-823.	2.0	8
45	Characterization of carburized tantalum layers prepared in inductive RF plasma. Thin Solid Films, 2001, 392, 56-64.	1.8	8
46	The Mechanical Behavior of HAVAR Foils Using the Small Punch Technique. Materials, 2017, 10, 491.	2.9	8
47	The effect of strain energy on the morphology of a cubic crystalline precipitate in an amorphous matrix. Journal of Non-Crystalline Solids, 1986, 87, 263-280.	3.1	7
48	Optical and transport properties of chromium-doped CdSe and CdS0.67Se0.33 crystals. Journal of Crystal Growth, 2006, 290, 50-55.	1.5	7
49	Yttrium Substitution in MTiO3 (M=Ca, Sr, Ba and Ca+Sr+Ba) Perovskites and Implication for Incorporation of Fission Products into Ceramic Waste Forms. Journal of the American Ceramic Society, 2011, 94, 3112-3116.	3.8	7
50	Microstructural evolution of AZ31 magnesium alloy after high strain rate expanding rings tests. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 641, 274-280.	5.6	7
51	Improved Formability of Mg-AZ80 Alloy under a High Strain Rate in Expanding-Ring Experiments. Materials, 2018, 11, 329.	2.9	7
52	Effect of Strong Anisotropy in Grainâ€Boundary Energy on Boundary Mobility in Abnormally Grown Grains. Journal of the American Ceramic Society, 2004, 87, 640-643.	3.8	6
53	SEM metrology for advanced lithographies. , 2007, , .		6
54	The influence of external stress/strain on the uranium-hydrogen reaction. Journal of Nuclear Materials, 2018, 510, 123-130.	2.7	6

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55	Phase stability of rare earth sesquioxides with grain size controlled in the nanoscale. Journal of the American Ceramic Society, 2019, 102, 3829-3835.	3.8	6
56	Thermal Expansion of MgTiO3 Made by Sol-Gel Technique at Temperature Range 25â€“890 Â°C. Crystals, 2020, 10, 887.	2.2	6
57	Strain-Dependent Chemical Reaction on Inhomogeneous Surfaces. Journal of Physical Chemistry C, 2016, 120, 24197-24202.	3.1	5
58	In situ HTXRD formation of magnesium titanates. Journal of the American Ceramic Society, 2018, 101, 4367-4374.	3.8	5
59	Hydrogen sorption behavior of some Pd-containing compounds. Journal of Alloys and Compounds, 2018, 750, 206-212.	5.5	5
60	Metastable magnesium titanate phases synthesized in nanometric systems. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 76, 605-614.	0.6	4
61	Effect of long term elevated temperature service on the properties of type Pâ€“22 steel. Materials Science and Technology, 2004, 20, 1519-1524.	1.6	4
62	Thermodynamic analysis of light-actinide elements. Journal of Nuclear Materials, 2005, 344, 36-39.	2.7	4
63	Long term aging of LLDPE based multi-layer film by exposure to light hydrocarbons. Polymer Degradation and Stability, 2014, 110, 457-463.	5.8	4
64	Coherency strain reduction in particles on a substrate as a driving force for solute segregation. Scripta Materialia, 2016, 122, 89-92.	5.2	4
65	Reactions between a Ge substrate and a sputter deposited Ti film. AIP Advances, 2014, 4, 067116.	1.3	3
66	Effect of Gas Tungsten Arc Welding Parameters on Hydrogen-Assisted Cracking of Type 321 Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 2010-2023.	2.2	3
67	On the Mechanism of Oxidation Resistance of W-Cr-Pd Alloys. Defect and Diffusion Forum, 0, 383, 133-141.	0.4	3
68	An Approach to Calculate the Elastic Interaction Energy of Inhomogeneous Precipitates: Application to Î³â€²-Ni3Ti in A-286 Steel. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	2.2	3
69	Self-organization via elastic interaction between precipitates in thin layers. Physical Review B, 1992, 46, 483-486.	3.2	2
70	Elastic effects associated with the formation of precipitates in a free thin layer: part I. the elastic fields. Modelling and Simulation in Materials Science and Engineering, 1995, 3, 235-251.	2.0	2
71	Zirconium Incorporation into <scp><scp>CaTiO</scp></scp>₃ Perovskite Prepared from Xerogels and Implication for the Fate of (<scp><scp>Ca</scp></scp>,<scp><scp>Sr</scp></scp>)<scp><scp>TiO</scp></scp>₃ Nuclear Waste Ceramics. Journal of the American Ceramic Society, 2013, 96, 2644-2650.	3.8	2
72	The elastic contribution to ledge growth on coherent interfaces in the system of a cube-shaped Î³â€² precipitate in nickel alloys. Part I: The elastic fields. Acta Materialia, 1997, 45, 4513-4525.	7.9	1

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73	Crystallization of 60SiO₂â€“20MgOâ€“10Al₂O₃â€“10BaO Glass Ceramics. Journal of the American Ceramic Society, 2005, 88, 2249-2254.	3.8	1
74	<title>Optical study of CdSe<formula><inf><roman><emph type="1">x</emph></roman></inf></formula>S<formula><inf><roman>l-<emph type="1">x</emph></roman></inf></formula> crystals doped with Cr</title>. , 2005, 5946, 284.		1
75	Inside Cover: Self-Assembled Organic Nanostructures with Metallic-Like Stiffness (Angew. Chem. Int.) Tj ETQq1 1 0.784314 rgBT /Ove	13.8	1
76	Revised phase stability diagram of rare earth sesquioxides. Japan Journal of Research, 0, , 1-2.	0.0	1
77	The effect of the elastic energy on the shape and orientation relations of Î·-Ni3Ti precipitates in lath martensite. Journal of Alloys and Compounds, 2022, , 165935.	5.5	1
78	Characterization of Sputter Deposited PbTe on Si (111) for Optoelectronic Applications. Materials Research Society Symposia Proceedings, 2002, 744, 1.	0.1	0
79	Agâ€“B Thin Films Prepared by Magnetron Sputtering. Materials Research Society Symposia Proceedings, 2004, 848, 156.	0.1	0
80	A Novel Method to Significantly Improve the Mechanical Properties of n-Type Bi(1â^'x)Sbx Thermoelectrics Due to Plastic Deformation. Electronic Materials, 2021, 2, 511-526.	1.9	0
81	Anelastic phenomena at room temperature in Ti6Al4V produced by electron beam powder bed fusion. Additive Manufacturing, 2022, 54, 102722.	3.0	0