

Roni Z Shneck

List of Publications by Year in descending order

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81
papers

2,491
citations

331259

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84
all docs

84
docs citations

84
times ranked

2931
citing authors

#	ARTICLE	IF	CITATIONS
1	Anelastic phenomena at room temperature in Ti6Al4V produced by electron beam powder bed fusion. Additive Manufacturing, 2022, 54, 102722.	1.7	0
2	Development of a High Performance Gas Thermoelectric Generator (TEG) with Possible Use of Waste Heat. Energies, 2022, 15, 3960.	1.6	9
3	The effect of the elastic energy on the shape and orientation relations of δ -Ni ₃ Ti precipitates in lath martensite. Journal of Alloys and Compounds, 2022, , 165935.	2.8	1
4	Magnesium- and intermetallic alloys-based hydrides for energy storage: modelling, synthesis and properties. Progress in Energy, 2022, 4, 032007.	4.6	29
5	Tailoring Microstructure and Mechanical Properties of Additively-Manufactured Ti6Al4V Using Post Processing. Materials, 2021, 14, 658.	1.3	26
6	A Novel Method to Significantly Improve the Mechanical Properties of n-Type Bi(1-x)Sbx Thermoelectrics Due to Plastic Deformation. Electronic Materials, 2021, 2, 511-526.	0.9	0
7	Thermal Expansion of MgTiO ₃ Made by Sol-Gel Technique at Temperature Range 25-890 °C. Crystals, 2020, 10, 887.	1.0	6
8	Diffusion and trapping of hydrogen due to elastic interaction with δ -Ni ₃ Ti precipitates in Custom 465 stainless steel. International Journal of Hydrogen Energy, 2019, 44, 31610-31620.	3.8	14
9	Phase stability of rare earth sesquioxides with grain size controlled in the nanoscale. Journal of the American Ceramic Society, 2019, 102, 3829-3835.	1.9	6
10	In situ HTXRD formation of magnesium titanates. Journal of the American Ceramic Society, 2018, 101, 4367-4374.	1.9	5
11	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.	1.7	123
12	Hydrogen sorption behavior of some Pd-containing compounds. Journal of Alloys and Compounds, 2018, 750, 206-212.	2.8	5
13	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.	3.6	17
14	High-temperature mechanical properties of AlSi10Mg specimens fabricated by additive manufacturing using selective laser melting technologies (AM-SLM). Additive Manufacturing, 2018, 24, 257-263.	1.7	90
15	Improved Formability of Mg-AZ80 Alloy under a High Strain Rate in Expanding-Ring Experiments. Materials, 2018, 11, 329.	1.3	7
16	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.	2.6	148
17	The influence of external stress/strain on the uranium-hydrogen reaction. Journal of Nuclear Materials, 2018, 510, 123-130.	1.3	6
18	An Approach to Calculate the Elastic Interaction Energy of Inhomogeneous Precipitates: Application to δ -Ni ₃ Ti in A-286 Steel. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	1.1	3

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19	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.	2.8	40
20	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.	2.6	216
21	The Mechanical Behavior of HAVAR Foils Using the Small Punch Technique. Materials, 2017, 10, 491.	1.3	8
22	Nanometric size dependent phase diagram of Bi-Sn. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2016, 53, 136-145.	0.7	13
23	Electrochemically enhanced surface plasticity of steels. Applied Surface Science, 2016, 388, 49-56.	3.1	11
24	Strain-Dependent Chemical Reaction on Inhomogeneous Surfaces. Journal of Physical Chemistry C, 2016, 120, 24197-24202.	1.5	5
25	Coherency strain reduction in particles on a substrate as a driving force for solute segregation. Scripta Materialia, 2016, 122, 89-92.	2.6	4
26	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.	1.1	3
27	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.	2.6	7
28	On the entropic nucleation barrier in a martensitic transformation. Philosophical Magazine, 2015, 95, 1282-1308.	0.7	12
29	Thermodynamic modeling of Al-X (X = Si,Zr). Journal of Nuclear Materials, 2015, 464, 170-184.	1.3	19
30	Long term aging of LLDPE based multi-layer film by exposure to light hydrocarbons. Polymer Degradation and Stability, 2014, 110, 457-463.	2.7	4
31	STM verification of the reduction of the Young's modulus of CdS nanoparticles at smaller sizes. Surface Science, 2014, 630, 89-95.	0.8	12
32	Steel to titanium solid state joining displaying superior mechanical properties. Journal of Materials Processing Technology, 2014, 214, 2884-2890.	3.1	11
33	Reactions between a Ge substrate and a sputter deposited Ti film. AIP Advances, 2014, 4, 067116.	0.6	3
34	Zirconium Incorporation into CaTiO ₃ Perovskite Prepared from Xerogels and Implication for the Fate of (Ca, Sr)TiO ₃ Nuclear Waste Ceramics. Journal of the American Ceramic Society, 2013, 96, 2644-2650.	1.9	2
35	(Ca, Sr)TiO ₃ , (Ba, Sr)TiO ₃ , and (Ba, Ca)TiO ₃ Perovskite Solid Solutions. Journal of the American Ceramic Society, 2012, 95, 1717-1726.	1.9	20
36	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.	2.8	10

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37	Yttrium Substitution in $MTiO_3$ (M=Ca, Sr, Ba and Ca+Sr+Ba) Perovskites and Implication for Incorporation of Fission Products into Ceramic Waste Forms. <i>Journal of the American Ceramic Society</i> , 2011, 94, 3112-3116.	1.9	7
38	Universal strain-temperature dependence of dislocation structure evolution in face-centered-cubic metals. <i>Acta Materialia</i> , 2011, 59, 5342-5350.	3.8	21
39	Self-Assembled Organic Nanostructures with Metallic-Like Stiffness. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 9939-9942.	7.2	128
40	Inside Cover: Self-Assembled Organic Nanostructures with Metallic-Like Stiffness (<i>Angew. Chem. Int.</i>)	7.2	128
41	Vibrational spectra of sodium gadolinium tungstate $NaGd(WO_4)_2$ single crystals: Observation of spatial dispersion. <i>Vibrational Spectroscopy</i> , 2009, 49, 110-117.	1.2	23
42	Thermodynamic analysis of high-pressure phase equilibria in Fe-Si alloys, implications for the inner-core. <i>Physics of the Earth and Planetary Interiors</i> , 2009, 172, 289-298.	0.7	25
43	Refractive index dispersion and anisotropy in $NaGd(WO_4)_2$ single crystal. <i>Optical Materials</i> , 2008, 30, 1251-1256.	1.7	14
44	Explicit Gibbs free energy equation of state for solids. <i>Journal of Physics and Chemistry of Solids</i> , 2008, 69, 1912-1922.	1.9	68
45	Sound-Evoked Deflections of Outer Hair Cell Stereocilia Arise from Tectorial Membrane Anisotropy. <i>Biophysical Journal</i> , 2008, 94, 4570-4576.	0.2	21
46	The strain energy and shape evolution of hydrides precipitated at free surfaces of metals. <i>Journal of Alloys and Compounds</i> , 2008, 452, 325-335.	2.8	10
47	Structure and morphology of pulsed laser deposited boron carbide films: Influence of deposition geometry. <i>Journal of Applied Physics</i> , 2007, 102, 104309.	1.1	11
48	SEM metrology for advanced lithographies. , 2007, , .		6
49	Application of CALPHAD to high pressures. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2007, 31, 173-185.	0.7	67
50	A Stiffness Switch in Human Immunodeficiency Virus. <i>Biophysical Journal</i> , 2007, 92, 1777-1783.	0.2	215
51	Thermal stability of nanostructured superhard coatings: A review. <i>Surface and Coatings Technology</i> , 2007, 201, 6136-6142.	2.2	119
52	Tribological properties of duplex treated TiN/TiCN coatings on plasma nitrided PH15-5 steel. <i>Surface and Coatings Technology</i> , 2007, 201, 6171-6175.	2.2	22
53	Internal stress in TiAlBN at high temperatures. <i>Surface and Coatings Technology</i> , 2007, 201, 6161-6166.	2.2	14
54	Sodium gadolinium tungstate $NaGd(WO_4)_2$: Growth, crystallography, and some physical properties. <i>Journal of Crystal Growth</i> , 2007, 305, 257-264.	0.7	22

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55	Mechanical Properties of Murine Leukemia Virus Particles: Effect of Maturation. <i>Biophysical Journal</i> , 2006, 91, 767-774.	0.2	126
56	Optical and transport properties of chromium-doped CdSe and CdS _{0.67} Se _{0.33} crystals. <i>Journal of Crystal Growth</i> , 2006, 290, 50-55.	0.7	7
57	Measurement of the mechanical properties of isolated tectorial membrane using atomic force microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 14790-14795.	3.3	84
58	Thermodynamic analysis of light-actinide elements. <i>Journal of Nuclear Materials</i> , 2005, 344, 36-39.	1.3	4
59	Crystallization of 60SiO ₂ ·20MgO·10Al ₂ O ₃ ·10BaO Glass Ceramics. <i>Journal of the American Ceramic Society</i> , 2005, 88, 2249-2254.	1.9	1
60	Optical study of CdSeS crystals doped with Cr. <i>Journal of Applied Physics</i> , 2005, 98, 5946, 284.		1
61	Self-Assembled Peptide Nanotubes Are Uniquely Rigid Bioinspired Supramolecular Structures. <i>Nano Letters</i> , 2005, 5, 1343-1346.	4.5	392
62	Ag ₂ S Thin Films Prepared by Magnetron Sputtering. <i>Materials Research Society Symposia Proceedings</i> , 2004, 848, 156.	0.1	0
63	Effect of long term elevated temperature service on the properties of type P22 steel. <i>Materials Science and Technology</i> , 2004, 20, 1519-1524.	0.8	4
64	Effect of Strong Anisotropy in Grain Boundary Energy on Boundary Mobility in Abnormally Grown Grains. <i>Journal of the American Ceramic Society</i> , 2004, 87, 640-643.	1.9	6
65	Growth and characterization of PbTe films by magnetron sputtering. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2004, 106, 89-94.	1.7	29
66	The spinodal constraint on the equation of state of expanded fluids. <i>Journal of Physics Condensed Matter</i> , 2003, 15, 2991-3001.	0.7	15
67	Characterization of Sputter Deposited PbTe on Si (111) for Optoelectronic Applications. <i>Materials Research Society Symposia Proceedings</i> , 2002, 744, 1.	0.1	0
68	Development of AlIBVI Semiconductors Doped with Cr for IR Laser Application. <i>Physica Status Solidi (B): Basic Research</i> , 2002, 229, 395-398.	0.7	15
69	Characterization of carburized tantalum layers prepared in inductive RF plasma. <i>Thin Solid Films</i> , 2001, 392, 56-64.	0.8	8
70	Surface treatment of tantalum to improve its corrosion resistance. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 302, 128-134.	2.6	23
71	Microstructural shape evolution of γ in nickel-based superalloys by stress-assisted diffusion. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2001, 81, 383-398.	0.8	12
72	Anisotropic coarsening: the effect of interfacial properties on the shape of the grains. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2000, 8, 815-823.	0.8	8

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73	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
74	The elastic contribution to ledge growth on coherent interfaces in the system of a cube-shaped Mg_2Ti precipitate in nickel alloys. Part I: The elastic fields. Acta Materialia, 1997, 45, 4513-4525.	3.8	1
75	Properties of nanostructured magnesium metatitanate prepared by the sol-gel technique. Scripta Materialia, 1996, 7, 527-533.	0.5	8
76	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.	0.8	2
77	Self-organization via elastic interaction between precipitates in thin layers. Physical Review B, 1992, 46, 483-486.	1.1	2
78	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.	0.8	13
79	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.	1.5	7
80	On the Mechanism of Oxidation Resistance of W-Cr-Pd Alloys. Defect and Diffusion Forum, 0, 383, 133-141.	0.4	3
81	Revised phase stability diagram of rare earth sesquioxides. Japan Journal of Research, 0, , 1-2.	0.0	1