

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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205818

48
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all docs

84
docs citations

84
times ranked

2931
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-Assembled Peptide Nanotubes Are Uniquely Rigid Bioinspired Supramolecular Structures. <i>Nano Letters</i> , 2005, 5, 1343-1346.	4.5	392
2	Fatigue of AlSi10Mg specimens fabricated by additive manufacturing selective laser melting (AM-SLM). <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 704, 229-237.	2.6	216
3	A Stiffness Switch in Human Immunodeficiency Virus. <i>Biophysical Journal</i> , 2007, 92, 1777-1783.	0.2	215
4	Heat treatment effect on the mechanical properties and fracture mechanism in AlSi10Mg fabricated by additive manufacturing selective laser melting process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 729, 310-322.	2.6	148
5	Self-Assembled Organic Nanostructures with Metallic-Like Stiffness. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 9939-9942.	7.2	128
6	Mechanical Properties of Murine Leukemia Virus Particles: Effect of Maturation. <i>Biophysical Journal</i> , 2006, 91, 767-774.	0.2	126
7	On the effect of shot-peening on fatigue resistance of AlSi10Mg specimens fabricated by additive manufacturing using selective laser melting (AM-SLM). <i>Additive Manufacturing</i> , 2018, 21, 458-464.	1.7	123
8	Thermal stability of nanostructured superhard coatings: A review. <i>Surface and Coatings Technology</i> , 2007, 201, 6136-6142.	2.2	119
9	High-temperature mechanical properties of AlSi10Mg specimens fabricated by additive manufacturing using selective laser melting technologies (AM-SLM). <i>Additive Manufacturing</i> , 2018, 24, 257-263.	1.7	90
10	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
11	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
12	Application of CALPHAD to high pressures. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2007, 31, 173-185.	0.7	67
13	Effect of grain size on the static and dynamic mechanical properties of magnesium aluminate spinel (MgAl ₂ O ₄). <i>Journal of the European Ceramic Society</i> , 2017, 37, 3417-3424.	2.8	40
14	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
15	Magnesium- and intermetallic alloys-based hydrides for energy storage: modelling, synthesis and properties. <i>Progress in Energy</i> , 2022, 4, 032007.	4.6	29
16	Tailoring Microstructure and Mechanical Properties of Additively-Manufactured Ti6Al4V Using Post Processing. <i>Materials</i> , 2021, 14, 658.	1.3	26
17	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
18	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

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19	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
20	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
21	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
22	Sound-Evoked Deflections of Outer Hair Cell Stereocilia Arise from Tectorial Membrane Anisotropy. <i>Biophysical Journal</i> , 2008, 94, 4570-4576.	0.2	21
23	Universal strain-temperature dependence of dislocation structure evolution in face-centered-cubic metals. <i>Acta Materialia</i> , 2011, 59, 5342-5350.	3.8	21
24	Thermochemistry of (Ca _{1-x} Sr _x)TiO ₃ , (Ba _{1-x} Sr _x)TiO ₃ , and (Ba _{1-x} Ca _x)TiO ₃ Perovskite Solid Solutions. <i>Journal of the American Ceramic Society</i> , 2012, 95, 1717-1726.	1.9	20
25	Thermodynamic modeling of Al _x (X = Si,Zr). <i>Journal of Nuclear Materials</i> , 2015, 464, 170-184.	1.3	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. <i>International Journal of Mechanical Sciences</i> , 2018, 135, 484-498.	3.6	17
27	Development of AlBVI Semiconductors Doped with Cr for IR Laser Application. <i>Physica Status Solidi (B): Basic Research</i> , 2002, 229, 395-398.	0.7	15
28	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
29	Internal stress in TiAlBN at high temperatures. <i>Surface and Coatings Technology</i> , 2007, 201, 6161-6166.	2.2	14
30	Refractive index dispersion and anisotropy in NaGd(WO ₄) ₂ single crystal. <i>Optical Materials</i> , 2008, 30, 1251-1256.	1.7	14
31	Diffusion and trapping of hydrogen due to elastic interaction with $\hat{\text{I}}\text{-Ni}_3\text{Ti}$ precipitates in Custom 465 [®] stainless steel. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 31610-31620.	3.8	14
32	Fundamentals of the anisotropy of elastic interactions between dilating particles in a cubic material. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1992, 65, 797-814.	0.8	13
33	Nanometric size dependent phase diagram of Bi-Sn. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2016, 53, 136-145.	0.7	13
34	Microstructural shape evolution of $\hat{\text{I}}^3$ 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
35	STM verification of the reduction of the Young's modulus of CdS nanoparticles at smaller sizes. <i>Surface Science</i> , 2014, 630, 89-95.	0.8	12
36	On the entropic nucleation barrier in a martensitic transformation. <i>Philosophical Magazine</i> , 2015, 95, 1282-1308.	0.7	12

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37	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
38	Steel to titanium solid state joining displaying superior mechanical properties. <i>Journal of Materials Processing Technology</i> , 2014, 214, 2884-2890.	3.1	11
39	Electrochemically enhanced surface plasticity of steels. <i>Applied Surface Science</i> , 2016, 388, 49-56.	3.1	11
40	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
41	Elastic fields generated by a semi-spherical hydride particle on a free surface of a metal and their effect on its growth. <i>Journal of Alloys and Compounds</i> , 2011, 509, 4025-4034.	2.8	10
42	Development of a High Performance Gas Thermoelectric Generator (TEG) with Possible Use of Waste Heat. <i>Energies</i> , 2022, 15, 3960.	1.6	9
43	Properties of nanostructured magnesium metatitanate prepared by the sol-gel technique. <i>Scripta Materialia</i> , 1996, 7, 527-533.	0.5	8
44	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
45	Characterization of carburized tantalum layers prepared in inductive RF plasma. <i>Thin Solid Films</i> , 2001, 392, 56-64.	0.8	8
46	The Mechanical Behavior of HAVAR Foils Using the Small Punch Technique. <i>Materials</i> , 2017, 10, 491.	1.3	8
47	The effect of strain energy on the morphology of a cubic crystalline precipitate in an amorphous matrix. <i>Journal of Non-Crystalline Solids</i> , 1986, 87, 263-280.	1.5	7
48	Optical and transport properties of chromium-doped CdSe and Cd _{0.67} Se _{0.33} crystals. <i>Journal of Crystal Growth</i> , 2006, 290, 50-55.	0.7	7
49	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
50	Microstructural evolution of AZ31 magnesium alloy after high strain rate expanding rings tests. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 641, 274-280.	2.6	7
51	Improved Formability of Mg-AZ80 Alloy under a High Strain Rate in Expanding-Ring Experiments. <i>Materials</i> , 2018, 11, 329.	1.3	7
52	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
53	SEM metrology for advanced lithographies. , 2007, , .		6
54	The influence of external stress/strain on the uranium-hydrogen reaction. <i>Journal of Nuclear Materials</i> , 2018, 510, 123-130.	1.3	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.	1.9	6
56	Thermal Expansion of MgTiO ₃ Made by Sol-Gel Technique at Temperature Range 25–890 °C. Crystals, 2020, 10, 887.	1.0	6
57	Strain-Dependent Chemical Reaction on Inhomogeneous Surfaces. Journal of Physical Chemistry C, 2016, 120, 24197-24202.	1.5	5
58	In situ HTXRD formation of magnesium titanates. Journal of the American Ceramic Society, 2018, 101, 4367-4374.	1.9	5
59	Hydrogen sorption behavior of some Pd-containing compounds. Journal of Alloys and Compounds, 2018, 750, 206-212.	2.8	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 P22 steel. Materials Science and Technology, 2004, 20, 1519-1524.	0.8	4
62	Thermodynamic analysis of light-actinide elements. Journal of Nuclear Materials, 2005, 344, 36-39.	1.3	4
63	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
64	Coherency strain reduction in particles on a substrate as a driving force for solute segregation. Scripta Materialia, 2016, 122, 89-92.	2.6	4
65	Reactions between a Ge substrate and a sputter deposited Ti film. AIP Advances, 2014, 4, 067116.	0.6	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.	1.1	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 γ -Ni ₃ Ti in A-286 Steel. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	1.1	3
69	Self-organization via elastic interaction between precipitates in thin layers. Physical Review B, 1992, 46, 483-486.	1.1	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.	0.8	2
71	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
72	The elastic contribution to ledge growth on coherent interfaces in the system of a cube-shaped γ -Ni ₃ Ti precipitate in nickel alloys. Part I: The elastic fields. Acta Materialia, 1997, 45, 4513-4525.	3.8	1

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73	Crystallization of $60\text{SiO}_2 \cdot 20\text{MgO} \cdot 10\text{Al}_2\text{O}_3 \cdot 10\text{BaO}$ Glass Ceramics. Journal of the American Ceramic Society, 2005, 88, 2249-2254.	1.9	1
74	Optical study of $\text{CdSe}_x\text{S}_{1-x}$ crystals doped with Cr. , 2005, 5946, 284.		1
75	Inside Cover: Self-Assembled Organic Nanostructures with Metallic-Like Stiffness (Angew. Chem. Int.) Tj ETQq1 1 0.784314 rgBT /Over	7.2	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 $\hat{\Gamma}$ -Ni ₃ Ti precipitates in lath martensite. Journal of Alloys and Compounds, 2022, , 165935.	2.8	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	Ag ⁺ 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(1-x)Sbx Thermoelectrics Due to Plastic Deformation. Electronic Materials, 2021, 2, 511-526.	0.9	0
81	Anelastic phenomena at room temperature in Ti6Al4V produced by electron beam powder bed fusion. Additive Manufacturing, 2022, 54, 102722.	1.7	0