

Daniel S Gianola

List of Publications by Year in descending order

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54
papers

3,853
citations

201674

27
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161849

54
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docs citations

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times ranked

4427
citing authors

#	ARTICLE	IF	CITATIONS
1	Growth and structural transitions of core-shell nanorods in nanocrystalline Al-Ni-Y. <i>Scripta Materialia</i> , 2022, 211, 114502.	5.2	6
2	Crack propagation in low dislocation density quantum dot lasers epitaxially grown on Si. <i>APL Materials</i> , 2022, 10, .	5.1	6
3	Anisotropic Thermally Conductive Composites Enabled by Acoustophoresis and Stereolithography. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	6
4	Electron backscattered diffraction using a new monolithic direct detector: High resolution and fast acquisition. <i>Ultramicroscopy</i> , 2021, 220, 113160.	1.9	20
5	Modeling meso- and microstructure in materials patterned with acoustic focusing. <i>Materials and Design</i> , 2021, 202, 109512.	7.0	8
6	Recent progress in acoustic field-assisted 3D-printing of functional composite materials. <i>MRS Advances</i> , 2021, 6, 636-643.	0.9	11
7	Disordered interfaces enable high temperature thermal stability and strength in a nanocrystalline aluminum alloy. <i>Acta Materialia</i> , 2021, 215, 116973.	7.9	27
8	Influence of plastic deformation on the magnetic properties of Heusler MnAu ₂ Al. <i>Physical Review Materials</i> , 2021, 5, .	2.4	3
9	Bulk nanocrystalline Al alloys with hierarchical reinforcement structures via grain boundary segregation and complexion formation. <i>Acta Materialia</i> , 2021, 221, 117394.	7.9	22
10	Multiplicity of dislocation pathways in a refractory multiprincipal element alloy. <i>Science</i> , 2020, 370, 95-101.	12.6	159
11	Mapping the kinetic evolution of metastable grain boundaries under non-equilibrium processing. <i>Acta Materialia</i> , 2020, 200, 328-337.	7.9	11
12	Microscopic origin of shear banding as a localized driven glass transition in compressed colloidal pillars. <i>Physical Review E</i> , 2020, 102, 032605.	2.1	1
13	Origins of strengthening and failure in twinned Au nanowires: Insights from in situ experiments and atomistic simulations. <i>Acta Materialia</i> , 2020, 187, 166-175.	7.9	15
14	Suppression of shear localization in nanocrystalline Al-Ni-Ce via segregation engineering. <i>Acta Materialia</i> , 2020, 188, 63-78.	7.9	18
15	Suppressing instabilities in defect-scarce nanowires by controlling the energy release rate during incipient plasticity. <i>Materials and Design</i> , 2020, 189, 108460.	7.0	9
16	Interfacial structure and strain accommodation in two-phase NbCo _{1.2} Sn Heusler intermetallics. <i>Physical Review Materials</i> , 2020, 4, .	2.4	4
17	Bridging functional nanocomposites to robust macroscale devices. <i>Science</i> , 2019, 364, .	12.6	118
18	Flexible Conductive Composites with Programmed Electrical Anisotropy Using Acoustophoresis. <i>Advanced Materials Technologies</i> , 2019, 4, 1900586.	5.8	30

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19	Dislocation dynamics in a nickel-based superalloy via in-situ transmission scanning electron microscopy. <i>Acta Materialia</i> , 2019, 168, 152-166.	7.9	46
20	New techniques for imaging and identifying defects in electron microscopy. <i>MRS Bulletin</i> , 2019, 44, 450-458.	3.5	9
21	Controlling dislocation nucleation-mediated plasticity in nanostructures via surface modification. <i>Acta Materialia</i> , 2019, 166, 572-586.	7.9	40
22	Transmission scanning electron microscopy: Defect observations and image simulations. <i>Ultramicroscopy</i> , 2018, 186, 49-61.	1.9	42
23	Femtosecond laser rejuvenation of nanocrystalline metals. <i>Acta Materialia</i> , 2018, 156, 183-195.	7.9	14
24	Structure-property relationships from universal signatures of plasticity in disordered solids. <i>Science</i> , 2017, 358, 1033-1037.	12.6	218
25	Compression and recovery of carbon nanotube forests described as a phase transition. <i>International Journal of Solids and Structures</i> , 2017, 122-123, 196-209.	2.7	24
26	High-strength magnetically switchable plasmonic nanorods assembled from a binary nanocrystal mixture. <i>Nature Nanotechnology</i> , 2017, 12, 228-232.	31.5	75
27	Interplay between grain boundary segregation and electrical resistivity in dilute nanocrystalline Cu alloys. <i>Scripta Materialia</i> , 2016, 123, 113-117.	5.2	10
28	Isochemical control over structural state and mechanical properties in Pd-based metallic glass by sputter deposition at elevated temperatures. <i>APL Materials</i> , 2016, 4, 086104.	5.1	14
29	Linking stress-driven microstructural evolution in nanocrystalline aluminium with grain boundary doping of oxygen. <i>Nature Communications</i> , 2016, 7, 11225.	12.8	33
30	Thermomechanical Behavior of Molded Metallic Glass Nanowires. <i>Scientific Reports</i> , 2016, 6, 19530.	3.3	17
31	Orthogonal Control of Stability and Tunable Dry Adhesion by Tailoring the Shape of Tapered Nanopillar Arrays. <i>Advanced Materials</i> , 2015, 27, 7788-7793.	21.0	35
32	A Robust Smart Window: Reversibly Switching from High Transparency to Angle-Independent Structural Color Display. <i>Advanced Materials</i> , 2015, 27, 2489-2495.	21.0	371
33	Full recovery takes time. <i>Nature Nanotechnology</i> , 2015, 10, 659-660.	31.5	9
34	Measuring surface dislocation nucleation in defect-scarce nanostructures. <i>Nature Materials</i> , 2015, 14, 707-713.	27.5	155
35	Robust scaling of strength and elastic constants and universal cooperativity in disordered colloidal micropillars. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 18167-18172.	7.1	8
36	Temperature controlled tensile testing of individual nanowires. <i>Review of Scientific Instruments</i> , 2014, 85, 013901.	1.3	15

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37	Synthesis and mechanical response of disordered colloidal micropillars. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10274-10285.	2.8	11
38	Understanding the mechanical behavior of nanocrystalline Al ₂ O ₃ thin films with complex microstructures. <i>Acta Materialia</i> , 2014, 77, 269-283.	7.9	11
39	Effect of organometallic clamp properties on the apparent diversity of tensile response of nanowires. <i>Nanotechnology</i> , 2013, 24, 235704.	2.6	31
40	Tunable Tensile Ductility in Metallic Glasses. <i>Scientific Reports</i> , 2013, 3, .	3.3	118
41	Lattice Anharmonicity in Defect-Free Pd Nanowhiskers. <i>Physical Review Letters</i> , 2012, 109, 125503.	7.8	52
42	The role of confinement on stress-driven grain boundary motion in nanocrystalline aluminum thin films. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	24
43	Source-based strengthening of sub-micrometer Al fibers. <i>Acta Materialia</i> , 2012, 60, 977-983.	7.9	77
44	Existence of two twinning-mediated plastic deformation modes in Au nanowhiskers. <i>Acta Materialia</i> , 2012, 60, 3985-3993.	7.9	127
45	<i>In situ</i> nanomechanical testing in focused ion beam and scanning electron microscopes. <i>Review of Scientific Instruments</i> , 2011, 82, 063901.	1.3	88
46	In Situ Measurement of the Toughness of the Interface Between a Thermal Barrier Coating and a Ni Alloy. <i>Journal of the American Ceramic Society</i> , 2011, 94, s120.	3.8	22
47	Mechanical Characterization of Coatings Using Microbeam Bending and Digital Image Correlation Techniques. <i>Experimental Mechanics</i> , 2010, 50, 85-97.	2.0	72
48	Size Independent Shape Memory Behavior of Nickel-Titanium. <i>Advanced Engineering Materials</i> , 2010, 12, 808-815.	3.5	46
49	Extremely low drift of resistance and threshold voltage in amorphous phase change nanowire devices. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	91
50	In situ deformation of thin films on substrates. <i>Microscopy Research and Technique</i> , 2009, 72, 270-283.	2.2	40
51	Ultrahigh Strength Single Crystalline Nanowhiskers Grown by Physical Vapor Deposition. <i>Nano Letters</i> , 2009, 9, 3048-3052.	9.1	406
52	Experimental Observations of Stress-Driven Grain Boundary Migration. <i>Science</i> , 2009, 326, 1686-1690.	12.6	536
53	In situ TEM observations of fast grain-boundary motion in stressed nanocrystalline aluminum films. <i>Acta Materialia</i> , 2008, 56, 3380-3393.	7.9	372
54	Strain Measurements of Silicon Dioxide Microspecimens by Digital Imaging Processing. <i>Experimental Mechanics</i> , 2007, 47, 649-658.	2.0	120