

# Siddhartha Pathak

## List of Publications by Year in descending order

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Version: 2024-02-01

38  
papers

1,747  
citations

304602

22  
h-index

377752

34  
g-index

39  
all docs

39  
docs citations

39  
times ranked

1782  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spherical nanoindentation stress-strain curves. <i>Materials Science and Engineering Reports</i> , 2015, 91, 1-36.	14.8	255
2	Determination of the effective zero-point and the extraction of spherical nanoindentation stress-strain curves. <i>Acta Materialia</i> , 2008, 56, 3523-3532.	3.8	213
3	Size effects in Al nanopillars: Single crystalline vs. bicrystalline. <i>Acta Materialia</i> , 2011, 59, 4416-4424.	3.8	162
4	Viscoelasticity and high buckling stress of dense carbon nanotube brushes. <i>Carbon</i> , 2009, 47, 1969-1976.	5.4	109
5	Higher Recovery and Better Energy Dissipation at Faster Strain Rates in Carbon Nanotube Bundles: An <i>in-Situ</i> Study. <i>ACS Nano</i> , 2012, 6, 2189-2197.	7.3	96
6	Importance of surface preparation on the nano-indentation stress-strain curves measured in metals. <i>Journal of Materials Research</i> , 2009, 24, 1142-1155.	1.2	80
7	Measurement of the local mechanical properties in polycrystalline samples using spherical nanoindentation and orientation imaging microscopy. <i>Acta Materialia</i> , 2009, 57, 3020-3028.	3.8	71
8	Studying grain boundary regions in polycrystalline materials using spherical nano-indentation and orientation imaging microscopy. <i>Journal of Materials Science</i> , 2012, 47, 815-823.	1.7	66
9	Measuring the dynamic mechanical response of hydrated mouse bone by nanoindentation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011, 4, 34-43.	1.5	62
10	Strong, Ductile, and Thermally Stable bcc-Mg Nanolaminates. <i>Scientific Reports</i> , 2017, 7, 8264.	1.6	53
11	Understanding pop-ins in spherical nanoindentation. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	51
12	Influence of lower current densities on the residual stress and structure of thick nickel electrodeposits. <i>Surface and Coatings Technology</i> , 2011, 205, 3651-3657.	2.2	43
13	Room temperature deformation mechanisms of Mg/Nb nanolayered composites. <i>Journal of Materials Research</i> , 2018, 33, 1311-1332.	1.2	43
14	Thermal and mechanical properties of LaCoO <sub>3</sub> and La <sub>0.8</sub> Ca <sub>0.2</sub> CoO <sub>3</sub> perovskites. <i>Journal of Power Sources</i> , 2008, 182, 230-239.	4.0	40
15	Spherical nanoindentation of proton irradiated 304 stainless steel: A comparison of small scale mechanical test techniques for measuring irradiation hardening. <i>Journal of Nuclear Materials</i> , 2017, 493, 368-379.	1.3	40
16	Quantifying the mechanical effects of He, W and He+ <sup>W</sup> ion irradiation on tungsten with spherical nanoindentation. <i>Journal of Materials Science</i> , 2018, 53, 5296-5316.	1.7	39
17	Analyzing indentation stress-strain response of LaGaO <sub>3</sub> single crystals using spherical indenters. <i>Journal of the European Ceramic Society</i> , 2008, 28, 2213-2220.	2.8	35
18	Assessment of lamellar level properties in mouse bone utilizing a novel spherical nanoindentation data analysis method. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 13, 102-117.	1.5	35

#	ARTICLE	IF	CITATIONS
19	Probing nanoscale damage gradients in ion-irradiated metals using spherical nanoindentation. Scientific Reports, 2017, 7, 11918.	1.6	35
20	Local Relative Density Modulates Failure and Strength in Vertically Aligned Carbon Nanotubes. ACS Nano, 2013, 7, 8593-8604.	7.3	33
21	Extreme shear-deformation-induced modification of defect structures and hierarchical microstructure in an Al-Si alloy. Communications Materials, 2020, 1, .	2.9	29
22	Mechanical behavior and electrical conductivity of $\text{La}_{1-x}\text{Ca}_x\text{CoO}_3$ ( $x=0, 0.2, 0.4, 0.55$ ) perovskites. Journal of Power Sources, 2010, 195, 3612-3620.	4.0	27
23	Effect of morphology on the strain recovery of vertically aligned carbon nanotube arrays: An in situ study. Carbon, 2013, 63, 303-316.	5.4	22
24	Compressive response of vertically aligned carbon nanotube films gleaned from in situ flat-punch indentations. Journal of Materials Research, 2013, 28, 984-997.	1.2	22
25	Investigations of orientation and length scale effects on micromechanical responses in polycrystalline zirconium using spherical nanoindentation. Scripta Materialia, 2016, 113, 241-245.	2.6	22
26	Analyzing indentation behavior of $\text{LaGaO}_3$ single crystals using sharp indenters. Journal of the European Ceramic Society, 2008, 28, 2039-2047.	2.8	15
27	In situ frustum indentation of nanoporous copper thin films. International Journal of Plasticity, 2017, 98, 139-155.	4.1	15
28	Structure and properties of pseudomorphically transformed bcc Mg in Mg/Nb multilayered nanolaminates studied using synchrotron X-ray diffraction. Journal of Applied Physics, 2019, 126, 025302.	1.1	10
29	On thermal and vibrational properties of $\text{LaGaO}_3$ single crystals. Acta Materialia, 2009, 57, 2984-2992.	3.8	9
30	Microstructural and micro-mechanical analysis of 14YWT nanostructured Ferritic alloy after varying thermo-mechanical processing paths into tubing. Materials Characterization, 2021, 171, 110744.	1.9	5
31	Time and frequency dependent mechanical properties of $\text{LaCoO}_3$ -based perovskites: Internal friction and negative creep. Journal of Applied Physics, 2018, 124, .	1.1	4
32	Enhancement of mechanical properties of vertically aligned carbon nanotube arrays due to $\text{N}^+$ ion irradiation. Nanotechnology, 2020, 31, 285703.	1.3	3
33	Lamellar Level Correlations Between Mechanical Behavior and Composition in Mouse Bone. Jom, 2021, 73, 3034-3045.	0.9	1
34	Spherical Nanoindentation Stress-Strain Analysis of Ion-Irradiated Tungsten. Minerals, Metals and Materials Series, 2018, , 617-635.	0.3	1
35	Vertically Aligned Carbon Nanotubes, Collective Mechanical Behavior. , 2016, , 1-20.		1
36	Viscosity. , 2012, , 2819-2819.		0

#	ARTICLE	IF	CITATIONS
37	Vertically Aligned Carbon Nanotubes, Collective Mechanical Behavior. , 2016, , 4325-4344.		0
38	Spherical Nanoindentation Stress-Strain Analysis of Ion-Irradiated Tungsten. Minerals, Metals and Materials Series, 2019, , 617-635.	0.3	0