Gajendra S Shekhawat

List of Publications by Year
in descending order

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42 papers	2,085 citations	331670 21 h-index	302126 39 g-index
43 all docs	43 docs citations	43 times ranked	3169 citing authors

#	Article	IF	Citations
1	Energy landscapes and functions of supramolecular systems. Nature Materials, 2016, 15, 469-476.	27.5	348
2	MOSFET-Embedded Microcantilevers for Measuring Deflection in Biomolecular Sensors. Science, 2006, 311, 1592-1595.	12.6	270
3	Nanoscale Imaging of Buried Structures via Scanning Near-Field Ultrasound Holography. Science, 2005, 310, 89-92.	12.6	233
4	Uniaxial Expansion of the 2D Ruddlesdenâ€“Popper Perovskite Family for Improved Environmental Stability. Journal of the American Chemical Society, 2019, 141, 5518-5534.	13.7	193
5	Imaging nanoparticles in cells by nanomechanical holography. Nature Nanotechnology, 2008, 3, 501-505.	31.5	152
6	Ethylenediammonium-Based â€œHollowâ€•Pb/Sn Perovskites with Ideal Band Gap Yield Solar Cells with Higher Efficiency and Stability. Journal of the American Chemical Society, 2019, 141, 8627-8637.	13.7	93
7	Out-of-Plane Mechanical Properties of 2D Hybrid Organicâ€“Inorganic Perovskites by Nanoindentation. ACS Applied Materials & Interfaces, 2018, 10, 22167-22173.	8.0	64
8	Stretching and Breaking of Ultrathin 2D Hybrid Organicâ€“Inorganic Perovskites. ACS Nano, 2018, 12, 10347-10354.	14.6	60
9	Elastic phase response of silica nanoparticles buried in soft matter. Applied Physics Letters, 2008, 93, .	3.3	55
10	Single-Crystal Polycationic Polymers Obtained by Single-Crystal-to-Single-Crystal Photopolymerization. Journal of the American Chemical Society, 2020, 142, 6180-6187.	13.7	50
11	Probing Strain-Induced Band Gap Modulation in 2D Hybrid Organicâ€“Inorganic Perovskites. ACS Energy Letters, 2019, 4, 796-802.	17.4	47
12	Exploring the Factors Affecting the Mechanical Properties of 2D Hybrid Organicâ€“Inorganic Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 20440-20447.	8.0	47
13	Ultrasound holography for noninvasive imaging of buried defects and interfaces for advanced interconnect architectures. Applied Physics Letters, 2009, 95, .	3.3	39
14	Highly sensitive and ultra-rapid antigen-based detection of SARS-CoV-2 using nanomechanical sensor platform. Biosensors and Bioelectronics, 2022, 195, 113647.	10.1	34
15	Nano-Biomechanical Study of Spatio-Temporal Cytoskeleton Rearrangements that Determine Subcellular Mechanical Properties and Endothelial Permeability. Scientific Reports, 2015, 5, 11097.	3.3	31
16	Mammary epitheliumâ€specific inactivation of Vâ€<scp>ATP</scp>ase reduces stiffness of extracellular matrix and enhances metastasis of breast cancer. Molecular Oncology, 2018, 12, 208-223.	4.6	29
17	Mapping Hot Spots at Heterogeneities of Few-Layer Ti₃C₂ MXene Sheets. ACS Nano, 2019, 13, 3301-3309.	14.6	29
18	Neuronal Protein 3.1 Deficiency Leads to Reduced Cutaneous Scar Collagen Deposition and Tensile Strength due to Impaired Transforming Growth Factor-Î²1 to -Î²3 Translation. American Journal of Pathology, 2017, 187, 292-303.	3.8	26

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19	Development of ultrasound bioprobe for biological imaging. Science Advances, 2017, 3, e1701176.	10.3	24
20	Probing Buried Defects in Extreme Ultraviolet Multilayer Blanks Using Ultrasound Holography. IEEE Nanotechnology Magazine, 2010, 9, 671-674.	2.0	23
21	Contrast mechanisms on nanoscale subsurface imaging in ultrasonic AFM: scattering of ultrasonic waves and contact stiffness of the tipâ€“sample. Nanoscale, 2017, 9, 2330-2339.	5.6	23
22	Nanomechanoelectronic signal transduction scheme with metal-oxide-semiconductor field-effect transistor-embedded microcantilevers. Applied Physics Letters, 2009, 94, .	3.3	20
23	A novel crosslinking protocol stabilizes amyloid Î² oligomers capable of inducing Alzheimer'sâ€associated pathologies. Journal of Neurochemistry, 2019, 148, 822-836.	3.9	20
24	Integrated MOSFET-Embedded-Cantilever-Based Biosensor Characteristic for Detection of Anthrax Simulant. IEEE Electron Device Letters, 2011, 32, 408-410.	3.9	19
25	Microcantilevers to lift biomolecules. Nature Nanotechnology, 2015, 10, 830-831.	31.5	19
26	Micromachined Chip Scale Thermal Sensor for Thermal Imaging. ACS Nano, 2018, 12, 1760-1767.	14.6	19
27	A simple novel device for air sampling by electrokinetic capture. Microbiome, 2015, 3, 79.	11.1	18
28	Spatial Mapping of Hotâ€Spots at Lateral Heterogeneities in Monolayer Transition Metal Dichalcogenides. Advanced Materials, 2019, 31, 1808244.	21.0	16
29	Structured silicon for revealing transient and integrated signal transductions in microbial systems. Science Advances, 2020, 6, eaay2760.	10.3	14
30	Bent on detecting cancer. Nature Nanotechnology, 2013, 8, 77-78.	31.5	13
31	High resolution atomic force microscopy imaging of molecular self assembly in liquids using thermal drift corrected cantilevers. Applied Physics Letters, 2009, 95, .	3.3	10
32	Thickness Resonance Acoustic Microscopy for Nanomechanical Subsurface Imaging. ACS Nano, 2017, 11, 6139-6145.	14.6	10
33	Insights into the mechanism of Alzheimerâ€™s Î²-amyloid aggregation as a function of concentration by using atomic force microscopy. Applied Physics Letters, 2012, 100, .	3.3	7
34	Selective Expansion of Skeletal Muscle Stem Cells from Bulk Muscle Cells in Soft Three-Dimensional Fibrin Gel. Stem Cells Translational Medicine, 2017, 6, 1412-1423.	3.3	7
35	A cortactin CTTN coding SNP contributes to lung vascular permeability and inflammatory disease severity in African descent subjects. Translational Research, 2022, 244, 56-74.	5.0	6
36	Rapid and Sensitive Detection of Antigen from SARS-CoV-2 Variants of Concern by a Multivalent Minibinder-Functionalized Nanomechanical Sensor. Analytical Chemistry, 2022, 94, 8105-8109.	6.5	6

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37	Green synthesis and characterization of size tunable silica-capped gold coreâ€“shell nanoparticles. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	5
38	Microcantilever array with embedded metal oxide semiconductor field effect transistor actuators for deflection control, deflection sensing, and high frequency oscillation. Applied Physics Letters, 2009, 94, 224103.	3.3	3
39	Evaluation Of a Compact Ionic Capture Device For Airborne Allergens In Inner City Schools. Journal of Allergy and Clinical Immunology, 2014, 133, AB187.	2.9	1
40	MOSFET-Embedded Microcantilevers: An All-Electronic Label- and Optics-Free Signal Transduction Paradigm for Bio-Chem Sensing. , 2006, , .		0
41	Comparison of Sample Preparation Methods for Analysis of Mucus-Secreting Colon Cancer Cells by Scanning Electron Microscopy. Microscopy and Microanalysis, 2015, 21, 185-186.	0.4	0
42	Towards non-invasive high-resolution 3D nano-tomography by ultrasonic scanning probe microscopy. , 2017, , .		0