Shubhra Gangopadhyay

List of Publications by Year
in descending order

104	3,347	172457	161849
papers	citations	29 h-index	54 g-index

105	105	105	4335
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Template-free chemical deposition of highly crystalline ZnO nanorod thin films. Materials Advances, 2022, 3, 5383-5392.	5.4	3
2	Laser-scribed conductive, photoactive transition metal oxide on soft elastomers for Janus on-skin electronics and soft actuators. Science Advances, 2022, 8, .	10.3	20
3	Surface Plasmon Enhanced Fluorescence Temperature Mapping of Aluminum Nanoparticle Heated by Laser. Sensors, 2021, 21, 1585.	3.8	5
4	Synthesis, characterization and nanoenergetic utilizations of fluorine, oxygen co-functionalized graphene by one-step XeF2 exposure. Combustion and Flame, 2020, 215, 324-332.	5.2	10
5	Stability study of iodinated reduced graphene oxide and its application in self-assembled Al/Bi₂O₃ nanothermite composites. Nano Futures, 2020, 4, 045002.	2.2	5
6	Linear Polyethylenimine-DNA Nanoconstruct for Corneal Gene Delivery. Journal of Ocular Pharmacology and Therapeutics, 2019, 35, 23-31.	1.4	20
7	Spontaneous emission rate enhancement with aperiodic Thue-Morse multilayer. Scientific Reports, 2019, 9, 8473.	3.3	4
8	Synchronized Electromechanical Shock Wave-Induced Bacterial Transformation. ACS Omega, 2019, 4, 8512-8521.	3.5	7
9	Ultrasensitive detection of lipoarabinomannan with plasmonic grating biosensors in clinical samples of HIV negative patients with tuberculosis. PLoS ONE, 2019, 14, e0214161.	2.5	24
10	Nanoscale surface reactions by laser irradiation of Al nanoparticles on MoO₃ flakes. Nanotechnology, 2019, 30, 045703.	2.6	8
11	Combustion of aluminum nanoparticles and exfoliated 2D molybdenum trioxide composites. Combustion and Flame, 2018, 187, 1-10.	5.2	27
12	In Situ Characterization of Photothermal Nanoenergetic Combustion on a Plasmonic Microchip. ACS Applied Materials & Interfaces, 2018, 10, 427-436.	8.0	13
13	Single-molecule Imaging of Metallic Nanostructures on a Plasmonic Metal Grating Superlens. , 2018, , .		2
14	Reactive nanoenergetic graphene aerogel synthesized by one-step chemical reduction. Combustion and Flame, 2018, 196, 400-406.	5.2	22
15	Enhanced fluorescence for in situ temperature mapping of photothermally heated aluminum nanoparticles enabled by a plasmonic grating substrate. Nanotechnology, 2018, 29, 395501.	2.6	5
16	Single-Molecule Surface Plasmon-Coupled Emission with Plasmonic Gratings. ACS Omega, 2017, 2, 2041-2045.	3.5	16
17	Polarization-Induced Transport: A Comparative Study of Ferroelectric and Non-Ferroelectric Dielectric-Gated Organic Field-Effect Transistors. MRS Advances, 2017, 2, 2951-2956.	0.9	1
18	Plasmonic nano-protrusions: hierarchical nanostructures for single-molecule Raman spectroscopy. Nanotechnology, 2017, 28, 025302.	2.6	9

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19	Extending lipoarabinomannan detection limitations with plasmonic gratings. , 2017, , .		2
20	Super-Resolution Light Microscopy Using Plasmonic Gratings. Microscopy Today, 2017, 25, 42-47.	0.3	7
21	Barrier Modification of Metal-contact on Silicon by Sub-2â€‰nm Platinum Nanoparticles and Thin Dielectrics. Scientific Reports, 2016, 6, 25234.	3.3	16
22	Evaluation of hybrid sol-gel incorporated with nanoparticles as nano paint. AIP Conference Proceedings, 2016, , .	0.4	18
23	Neutron detection with integrated sub-2 nm Pt nanoparticles and 10B enriched dielectricsâ€”A direct conversion device. Sensing and Bio-Sensing Research, 2016, 9, 1-6.	4.2	8
24	Influence of Pt Nanoparticle Induced Defects and Surface Coverage in Determining Asymmetric Programming/Erasing Signatures for Nanocrystal Embedded Nonvolatile Memory Applications. Advanced Materials Interfaces, 2016, 3, 1600436.	3.7	4
25	Palladium-Functionalized Nanostructured Platforms for Enhanced Hydrogen Sensing. Nanomaterials and Nanotechnology, 2016, 6, 40.	3.0	21
26	Enhanced DNA Detection Through the Incorporation of Nanocones and Cavities Into a Plasmonic Grating Sensor Platform. IEEE Sensors Journal, 2016, 16, 3403-3408.	4.7	8
27	Enhanced Combustion Characteristics of Bismuth Trioxideâ€Aluminum Nanocomposites Prepared through Graphene Oxide Directed Selfâ€Assembly. Propellants, Explosives, Pyrotechnics, 2015, 40, 729-734.	1.6	35
28	Single-Molecule Detection in Nanogap-Embedded Plasmonic Gratings. Nanobiomedicine, 2015, 2, 8.	5.7	6
29	Size-dependent work function and single electron memory behavior of pentacene non-volatile memory with embedded sub-nanometer platinum nanoparticles. Journal of Applied Physics, 2015, 117, .	2.5	19
30	Multilayer thin film capacitors by selective etching of Pt and Ru electrodes. Microelectronic Engineering, 2015, 133, 92-97.	2.4	0
31	Combustion characterization and modeling of novel nanoenergetic composites of Co₃O₄/nAl. RSC Advances, 2015, 5, 21471-21479.	3.6	61
32	Ultrafine Pt nanoparticle induced doping/strain of single layer graphene: experimental corroboration between conductionÂand Raman characteristics. Journal of Materials Science: Materials in Electronics, 2015, 26, 4746-4753.	2.2	12
33	Room temperature Coulomb blockade effects in Au nanocluster/pentacene single electron transistors. Nanotechnology, 2015, 26, 355204.	2.6	22
34	Fast-Impulse Nanothermite Solid-Propellant Miniaturized Thrusters. Journal of Propulsion and Power, 2015, 31, 483-483.	2.2	8
35	Experimental characterization of optical nonlocality in metal-dielectric multilayer metamaterials. Optics Express, 2014, 22, 22974.	3.4	10
36	Characterization and versatile applications of low hydrogen content SiOCN grown by plasma-enhanced chemical vapor deposition. Journal of Applied Physics, 2014, 116, .	2.5	12

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37	Layer-by-layer charging in non-volatile memory devices using embedded sub-2â€‰nm platinum nanoparticles. Applied Physics Letters, 2014, 104, .	3.3	13
38	Stability of Subâ€”2 nm Pt Nanoparticles on Different Support Surfaces. Journal of the Electrochemical Society, 2014, 161, F493-F499.	2.9	7
39	Enhanced fluorescence through the incorporation of nanocones/gaps into a plasmonic gratings sensor platform. , 2014, , .		2
40	Ionic conductivity enhancement of sputtered gold nanoparticle-in-ionic liquid electrolytes. Journal of Materials Chemistry A, 2014, 2, 792-803.	10.3	21
41	Hydrogen spillover at sub-2 nm Pt nanoparticles by electrochemical hydrogen loading. Journal of Materials Chemistry A, 2014, 2, 3954.	10.3	42
42	Effect of Nitrocellulose Gasifying Binder on Thrust Performance and Highâ€g Launch Tolerance of Miniaturized Nanothermite Thrusters. Propellants, Explosives, Pyrotechnics, 2014, 39, 374-382.	1.6	33
43	Plasmonic-enhanced conjugated polymer fluorescence chemosensor for trace nitroaromatic vapor. Sensors and Actuators B: Chemical, 2014, 202, 1088-1096.	7.8	22
44	Coatings and surface modifications imparting antimicrobial activity to orthopedic implants. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2014, 6, 475-495.	6.1	64
45	A Versatile Self-Assembly Approach toward High Performance Nanoenergetic Composite Using Functionalized Graphene. Langmuir, 2014, 30, 6556-6564.	3.5	91
46	Nano Porous Palladium Sensor for Sensitive and Rapid Detection of Hydrogen. Sensor Letters, 2014, 12, 1279-1285.	0.4	13
47	Nanomaterial processing using self-assembly-bottom-up chemical and biological approaches. Reports on Progress in Physics, 2013, 76, 066501.	20.1	114
48	Fast-Impulse Nanothermite Solid-Propellant Miniaturized Thrusters. Journal of Propulsion and Power, 2013, 29, 1400-1409.	2.2	60
49	Ultra-rapid elimination of biofilms via the combustion of a nanoenergetic coating. BMC Biotechnology, 2013, 13, 30.	3.3	8
50	Sub-2 nm size and density tunable platinum nanoparticles using room temperature tilted-target sputtering. Nanotechnology, 2013, 24, 205602.	2.6	31
51	Experimental realization of epsilon-near-zero metamaterial slabs with metal-dielectric multilayers. Applied Physics Letters, 2013, 103, .	3.3	83
52	Femtogram-level detection of Clostridium botulinum neurotoxin type A by sandwich immunoassay using nanoporous substrate and ultra-bright fluorescent suprananoparticles. Biosensors and Bioelectronics, 2013, 41, 409-416.	10.1	31
53	Protease biosensing on novel high surface area organosilicate nanoporous films. Sensors and Actuators B: Chemical, 2013, 176, 351-359.	7.8	8
54	Large sensitivity enhancement in semiconducting organic field effect transistor sensors through incorporation of ultra-fine platinum nanoparticles. Applied Physics Letters, 2013, 103, .	3.3	24

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55	Role of Pt Nanoparticles in Photoreactions on TiO2 Photoelectrodes. Materials Research Society Symposia Proceedings, 2012, 1446, 85.	0.1	0
56	Multi-Layer Pt Nanoparticle Embedded High Density Non-Volatile Memory Devices. Journal of the Electrochemical Society, 2012, 159, H393-H399.	2.9	16
57	Transparent Electrode Materials for Simultaneous Amperometric Detection of Exocytosis and Fluorescence Microscopy. Journal of Biomaterials and Nanobiotechnology, 2012, 03, 243-253.	0.5	40
58	Confeito-like assembly of organosilicate-caged fluorophores: ultrabright supprananoparticles for fluorescence imaging. Nanotechnology, 2012, 23, 175601.	2.6	11
59	Counting single Rhodamine 6G dye molecules in organosilicate nanoparticles. Chemical Physics, 2012, 406, 41-46.	1.9	11
60	Size and Structure Matter: Enhanced CO₂ Photoreduction Efficiency by Size-Resolved Ultrafine Pt Nanoparticles on TiO₂ Single Crystals. Journal of the American Chemical Society, 2012, 134, 11276-11281.	13.7	691
61	Transient pressure mediated intranuclear delivery of FITC-Dextran into chicken cardiomyocytes by MEMS-based nanothermite reaction actuator. Sensors and Actuators B: Chemical, 2012, 171-172, 1292-1296.	7.8	40
62	Enhanced Water Photolysis with Pt Metal Nanoparticles on Single Crystal TiO₂ Surfaces. Langmuir, 2012, 28, 7528-7534.	3.5	49
63	Sputter-Deposition of Silver Nanoparticles into Ionic Liquid as a Sacrificial Reservoir in Antimicrobial Organosilicate Nanocomposite Coatings. ACS Applied Materials & Interfaces, 2012, 4, 178-184.	8.0	42
64	Ultrafine sputter-deposited Pt nanoparticles for triiodide reduction in dye-sensitized solar cells: impact of nanoparticle size, crystallinity and surface coverage on catalytic activity. Nanotechnology, 2012, 23, 485405.	2.6	40
65	Combustion Characteristics of Silicon-Based Nanoenergetic Formulations with Reduced Electrostatic Discharge Sensitivity. Propellants, Explosives, Pyrotechnics, 2012, 37, 359-372.	1.6	37
66	Microwell Device for Targeting Single Cells to Electrochemical Microelectrodes for High-Throughput Amperometric Detection of Quantal Exocytosis. Analytical Chemistry, 2011, 83, 2445-2451.	6.5	56
67	Comparison of molecular imprinted particles prepared using precipitation polymerization in water and chloroform for fluorescent detection of nitroaromatics. Analytica Chimica Acta, 2011, 703, 239-244.	5.4	22
68	Galvanic Porous Silicon Composites for High-Velocity Nanoenergetics. Nano Letters, 2011, 11, 803-807.	9.1	108
69	A comparative evaluation of microarray slides as substrates for the development of protease assay biosensors. Experimental and Molecular Pathology, 2011, 91, 714-717.	2.1	1
70	Sub-minute formation of supported nanoporous mesoscale patterns programmed by surface energy. Journal of Colloid and Interface Science, 2011, 364, 546-554.	9.4	8
71	Combustion characteristics of novel hybrid nanoenergetic formulations. Combustion and Flame, 2011, 158, 964-978.	5.2	80
72	Room temperature observation of size dependent single electron tunneling in a sub-2 nm size tunable Pt nanoparticle embedded metalâ€“oxideâ€“semiconductor structure. Nanotechnology, 2011, 22, 465201.	2.6	18

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73	Trypsin Detection Utilizing Peptide Substrates Immobilized on PMMA Nanofibers. Sensor Letters, 2011, 9, 1376-1381.	0.4	1
74	Plasma Modification of Polymer Surfaces and Their Utility in Building Biomedical Microdevices. , 2011, , 377-409.		0
75	Detection of Nitroaromatic Explosives Using a Fluorescent-Labeled Imprinted Polymer. Analytical Chemistry, 2010, 82, 4015-4019.	6.5	175
76	Modified Nanoenergetic Composites with Tunable Combustion Characteristics for Propellant Applications. Propellants, Explosives, Pyrotechnics, 2010, 35, 384-394.	1.6	46
77	Plasma Modification of Polymer Surfaces and Their Utility in Building Biomedical Microdevices. Journal of Adhesion Science and Technology, 2010, 24, 2707-2739.	2.6	26
78	Automated Targeting of Cells to Electrochemical Electrodes Using a Surface Chemistry Approach for the Measurement of Quantal Exocytosis. ACS Chemical Neuroscience, 2010, 1, 590-597.	3.5	27
79	Novel nanostructured platform and nanoparticles for sensitive detection of biological materials. , 2010, , .		1
80	Sub-2 nm Size-Tunable High-Density Pt Nanoparticle Embedded Nonvolatile Memory. IEEE Electron Device Letters, 2009, 30, 1362-1364.	3.9	27
81	Development of a Miniaturized Liquid Core Waveguide System With Nanoporous Dielectric Claddingâ€"A Potential Biosensing Platform. IEEE Sensors Journal, 2009, 9, 1711-1718.	4.7	22
82	Entropy driven spontaneous formation of highly porous films from polymerâ€"nanoparticle composites. Nanotechnology, 2009, 20, 425602.	2.6	24
83	Novel process for low temperature crystallization of a-SiC:H for optoelectronic applications. Journal of Materials Science: Materials in Electronics, 2009, 20, 412-415.	2.2	3
84	Preferential cell attachment to nitrogen-doped diamond-like carbon (DLC:N) for the measurement of quantal exocytosis. Biomaterials, 2009, 30, 1604-1612.	11.4	27
85	Characterization of a novel ultra-low refractive index material for biosensor application. Sensors and Actuators B: Chemical, 2009, 141, 227-232.	7.8	21
86	Characterization of Nanothermite Material for Solid-Fuel Microthruster Applications. Journal of Propulsion and Power, 2009, 25, 1086-1091.	2.2	80
87	A microfluidic cell trap device for automated measurement of quantal catecholamine release from cells. Lab on A Chip, 2009, 9, 3442.	6.0	40
88	Magnetron sputtered diamond-like carbon microelectrodes for on-chip measurement of quantal catecholamine release from cells. Biomedical Microdevices, 2008, 10, 623-629.	2.8	39
89	Low temperature crystallization of amorphous silicon carbide thin films for pâ€"n junction devices fabrication. Journal of Materials Science: Materials in Electronics, 2008, 19, 801-804.	2.2	4
90	Nanoenergetic Composites of CuO Nanorods, Nanowires, and Alâ€Nanoparticles. Propellants, Explosives, Pyrotechnics, 2008, 33, 122-130.	1.6	119

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91	Controlled on-chip stimulation of quantal catecholamine release from chromaffin cells using photolysis of caged Ca2+on transparent indium-tin-oxide microchip electrodes. Lab on A Chip, 2008, 8, 161-169.	6.0	43
92	Electrochemical Properties of Carbon Nanoparticles Entrapped in a Silica Matrix. Journal of the Electrochemical Society, 2008, 155, K91.	2.9	21
93	Optimization of Design and Fabrication Processes for Realization of a PDMS-SOG-Silicon DNA Amplification Chip. Journal of Microelectromechanical Systems, 2007, 16, 401-410.	2.5	20
94	Effect of Incorporating Metal nanoparticles in High-k Dielectrics for NanoFLASH and NanoCMOS. , 2007, , .		0
95	Mechanics of plasma exposed spin-on-glass (SOG) and polydimethyl siloxane (PDMS) surfaces and their impact on bond strength. Applied Surface Science, 2007, 253, 4220-4225.	6.1	37
96	Nanoenergetic Composite of Mesoporous Iron Oxide and Aluminum Nanoparticles. Journal of Energetic Materials, 2006, 24, 341-360.	2.0	37
97	Nanoporous organosilicate films as antireflection coatings. Thin Solid Films, 2006, 514, 350-354.	1.8	25
98	A Novel On-Chip Diagnostic Method to Measure Burn Rates of Energetic Materials. Journal of Energetic Materials, 2006, 24, 1-15.	2.0	24
99	On-Chip Initiation and Burn Rate Measurements of Thermite Energetic Reactions. Materials Research Society Symposia Proceedings, 2005, 896, 21.	0.1	6
100	Self-assembled Ordered Energetic Composites of CuO Nanorods and Nanowells and Al Nanoparticles with High Burn Rates. Materials Research Society Symposia Proceedings, 2005, 896, 51.	0.1	10
101	Ferrihydrite gels derived in the Fe(NO3)3Â·9H2Oâ€“C2H5OHâ€“CH3CHCH2O ternary system. Journal of Non-Crystalline Solids, 2005, 351, 1426-1432.	3.1	4
102	Intermolecular energy transfer in binary systems of dye polymers. Journal of Applied Physics, 2000, 88, 4860.	2.5	19
103	Fluorescence Studies on New Epoxypolymerâ€”Dye Compositions for Ultrafast Wavelength Shifters. Applied Spectroscopy, 1996, 50, 1545-1552.	2.2	2
104	Primary scintillant fluorescent decay times in binary and ternary scintillators by near UV pulsed laser excitation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1987, 256, 348-354.	1.6	5