Prashant Nagpal

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6207710/publications.pdf

Version: 2024-02-01

		236612	128067
61	3,724	25	60
papers	citations	h-index	g-index

64	64	64	6032
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ultrasmooth Patterned Metals for Plasmonics and Metamaterials. Science, 2009, 325, 594-597.	6.0	770
2	Engineering metallic nanostructures for plasmonics and nanophotonics. Reports on Progress in Physics, 2012, 75, 036501.	8.1	427
3	Role of mid-gap states in charge transport and photoconductivity in semiconductor nanocrystal films. Nature Communications, 2011, 2, 486.	5.8	236
4	Photoexcited quantum dots for killing multidrug-resistant bacteria. Nature Materials, 2016, 15, 529-534.	13.3	231
5	Template-Stripped Smooth Ag Nanohole Arrays with Silica Shells for Surface Plasmon Resonance Biosensing. ACS Nano, 2011, 5, 6244-6253.	7.3	203
6	Plasmon-Enhanced Energy Transfer for Improved Upconversion of Infrared Radiation in Doped-Lanthanide Nanocrystals. Nano Letters, 2014, 14, 101-106.	4.5	194
7	Three-Dimensional Plasmonic Nanofocusing. Nano Letters, 2010, 10, 1369-1373.	4.5	167
8	Efficient Low-Temperature Thermophotovoltaic Emitters from Metallic Photonic Crystals. Nano Letters, 2008, 8, 3238-3243.	4.5	126
9	Singleâ€Crystalline Silver Films for Plasmonics. Advanced Materials, 2012, 24, 3988-3992.	11.1	118
10	Potentiating antibiotics in drug-resistant clinical isolates via stimuli-activated superoxide generation. Science Advances, 2017, 3, e1701776.	4.7	107
11	Nanorg Microbial Factories: Light-Driven Renewable Biochemical Synthesis Using Quantum Dot-Bacteria Nanobiohybrids. Journal of the American Chemical Society, 2019, 141, 10272-10282.	6.6	99
12	Spectral Dependence of Nanocrystal Photoionization Probability: The Role of Hot-Carrier Transfer. ACS Nano, 2011, 5, 5045-5055.	7.3	74
13	Measurement of Electronic States of PbS Nanocrystal Quantum Dots Using Scanning Tunneling Spectroscopy: The Role of Parity Selection Rules in Optical Absorption. Physical Review Letters, 2013, 110, 127406.	2.9	68
14	Observation of Thermal Beaming from Tungsten and Molybdenum Bullâ€™s Eyes. ACS Photonics, 2016, 3, 494-500.	3.2	63
15	Photocatalysis Deconstructed: Design of a New Selective Catalyst for Artificial Photosynthesis. Nano Letters, 2014, 14, 597-603.	4.5	62
16	Split-Wedge Antennas with Sub-5 nm Gaps for Plasmonic Nanofocusing. Nano Letters, 2016, 16, 7849-7856.	4.5	54
17	Fabrication of carbon/refractory metal nanocomposites as thermally stable metallic photonic crystals. Journal of Materials Chemistry, 2011, 21, 10836.	6.7	49
18	Thermally Stable Organicâ€“Inorganic Hybrid Photoresists for Fabrication of Photonic Band Gap Structures with Direct Laser Writing. Advanced Materials, 2008, 20, 606-610.	11.1	46

#	Article	IF	Citations
19	Copper plasmonics and catalysis: role of electronâ€“phonon interactions in dephasing localized surface plasmons. Nanoscale, 2014, 6, 12450-12457.	2.8	46
20	Plasmonic nanofocusing with a metallic pyramid and an integrated C-shaped aperture. Scientific Reports, 2013, 3, 1857.	1.6	43
21	Photon upconversion towards applications in energy conversion and bioimaging. Progress in Surface Science, 2017, 92, 281-316.	3.8	41
22	Doping of wide-bandgap titanium-dioxide nanotubes: optical, electronic and magnetic properties. Nanoscale, 2014, 6, 10839-10849.	2.8	33
23	Fabrication of Smooth Patterned Structures of Refractory Metals, Semiconductors, and Oxides via Template Stripping. ACS Applied Materials & Interfaces, 2013, 5, 9701-9708.	4.0	27
24	Quantum dot therapeutics: a new class of radical therapies. Journal of Biological Engineering, 2019, 13, 48.	2.0	27
25	Assessing Different Reactive Oxygen Species as Potential Antibiotics: Selectivity of Intracellular Superoxide Generation Using Quantum Dots. ACS Applied Bio Materials, 2018, 1, 529-537.	2.3	26
26	Improved dielectric functions in metallic films obtained via template stripping. Applied Physics Letters, 2012, 100, 081105.	1.5	25
27	Designing Superoxide-Generating Quantum Dots for Selective Light-Activated Nanotherapy. Frontiers in Chemistry, 2018, 6, 46.	1.8	25
28	Nearâ€Infraredâ€Lightâ€Triggered Antimicrobial Indium Phosphide Quantum Dots. Angewandte Chemie - International Edition, 2019, 58, 11414-11418.	7.2	21
29	Standalone anion- and co-doped titanium dioxide nanotubes for photocatalytic and photoelectrochemical solar-to-fuel conversion. Nanoscale, 2016, 8, 17496-17505.	2.8	20
30	Quantum Point Contact Single-Nucleotide Conductance for DNA and RNA Sequence Identification. ACS Nano, 2017, 11, 11169-11181.	7.3	18
31	Multiple Energy Exciton Shelves in Quantum-Dotâ€“DNA Nanobioelectronics. Journal of Physical Chemistry Letters, 2014, 5, 3909-3913.	2.1	15
32	Gold nanoclusters cause selective light-driven biochemical catalysis in living nano-biohybrid organisms. Nanoscale Advances, 2020, 2, 2363-2370.	2.2	15
33	Reversing radiation-induced immunosuppression using a new therapeutic modality. Life Sciences in Space Research, 2022, 35, 127-139.	1.2	15
34	Photoexcited Quantum Dots as Efficacious and Nontoxic Antibiotics in an Animal Model. ACS Biomaterials Science and Engineering, 2021, 7, 1863-1875.	2.6	14
35	Direct conjugation of DNA to quantum dots for scalable assembly of photoactive thin films. RSC Advances, 2014, 4, 8064.	1.7	13
36	Highâ€Throughput Block Optical DNA Sequence Identification. Small, 2018, 14, 1703165.	5.2	13

#	Article	IF	Citations
37	Effect of plasmon-enhancement on photophysics in upconverting nanoparticles. Optics Express, 2014, 22, 11516.	1.7	12
38	Pseudo-direct bandgap transitions in silicon nanocrystals: effects on optoelectronics and thermoelectrics. Nanoscale, 2014, 6, 14643-14647.	2.8	12
39	Conformational Smear Characterization and Binning of Single-Molecule Conductance Measurements for Enhanced Molecular Recognition. Journal of the American Chemical Society, 2017, 139, 15420-15428.	6.6	12
40	ROS mediated selection for increased NADPH availability in Escherichia coli. Biotechnology and Bioengineering, 2017, 114, 2685-2689.	1.7	12
41	Nucleotide and structural label identification in single RNA molecules with quantum tunneling spectroscopy. Chemical Science, 2019, 10, 1052-1063.	3.7	12
42	Transparent conducting oxide nanotubes. Nanotechnology, 2014, 25, 385202.	1.3	11
43	Low Excitonâ€“Phonon Coupling, High Charge Carrier Mobilities, and Multiexciton Properties in Two-Dimensional Lead, Silver, Cadmium, and Copper Chalcogenide Nanostructures. Journal of Physical Chemistry Letters, 2014, 5, 4291-4297.	2.1	10
44	Titanium dioxide nanotube membranes for solar energy conversion: effect of deep and shallow dopants. Physical Chemistry Chemical Physics, 2017, 19, 10042-10050.	1.3	10
45	BOCS: DNA k-mer content and scoring for rapid genetic biomarker identification at low coverage. Computers in Biology and Medicine, 2019, 110, 196-206.	3.9	9
46	Photoactivated Indium Phosphide Quantum Dots Treat Multidrug-Resistant Bacterial Abscesses In Vivo. ACS Applied Materials & Interfaces, 2021, 13, 30404-30419.	4.0	8
47	Measurements of Single Nucleotide Electronic States as Nanoelectronic Fingerprints for Identification of DNA Nucleobases, Their Protonated and Unprotonated States, Isomers, and Tautomers. Journal of Physical Chemistry B, 2015, 119, 4968-4974.	1.2	7
48	Long-range energy transfer in self-assembled quantum dot-DNA cascades. Nanoscale, 2015, 7, 18435-18440.	2.8	7
49	Single Nucleobase Identification Using Biophysical Signatures from Nanoelectronic Quantum Tunneling. Small, 2017, 13, 1603033.	5.2	7
50	Isolating the Escherichia coli Transcriptomic Response to Superoxide Generation from Cadmium Chalcogenide Quantum Dots. ACS Biomaterials Science and Engineering, 2019, 5, 4206-4218.	2.6	7
51	Photophysical Color Tuning for Photon Upconverting Nanoparticles. ACS Applied Materials & Interfaces, 2019, 11, 27011-27016.	4.0	7
52	Tuning Ternary Zn1â€“xCdxTe Quantum Dot Composition: Engineering Electronic States for Light-Activated Superoxide Generation as a Therapeutic against Multidrug-Resistant Bacteria. ACS Biomaterials Science and Engineering, 2019, 5, 3111-3118.	2.6	7
53	Charge transport through exciton shelves in cadmium chalcogenide quantum dot-DNA nano-bioelectronic thin films. Applied Physics Letters, 2015, 106, 083109.	1.5	6
54	Diagnostic Optical Sequencing. ACS Applied Materials & Interfaces, 2019, 11, 35587-35596.	4.0	6

#	Article	IF	Citations
55	Titanium-dioxide nanotube p-n homojunction diode. Applied Physics Letters, 2014, 105, 263501.	1.5	5
56	Air-Pressure Tunable Depletion Width, Rectification Behavior, and Charge Conduction in Oxide Nanotubes. ACS Applied Materials & Interfaces, 2015, 7, 2153-2159.	4.0	5
57	Air-gating and chemical-gating in transistors and sensing devices made from hollow TiO₂semiconductor nanotubes. Nanotechnology, 2015, 26, 295203.	1.3	5
58	Nearâ€Infraredâ€Lightâ€Triggered Antimicrobial Indium Phosphide Quantum Dots. Angewandte Chemie, 2019, 131, 11536-11540.	1.6	5
59	Analysis of Identification Method for Bacterial Species and Antibiotic Resistance Genes Using Optical Data From DNA Oligomers. Frontiers in Microbiology, 2020, 11, 257.	1.5	5
60	Light-activated quantum dot potentiation of antibiotics to treat drug-resistant bacterial biofilms. Nanoscale Advances, 2021, 3, 2782-2786.	2.2	4
61	Co-doping metal oxide nanotubes: superlinear photoresponse and multianalyte sensing. Materials Research Express, 2019, 6, 1150b1.	0.8	2