

Rafael Abargues

List of Publications by Year in descending order

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65
papers

1,455
citations

279798

23
h-index

330143

37
g-index

66
all docs

66
docs citations

66
times ranked

2307
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanotexturing To Enhance Photoluminescent Response of Atomically Thin Indium Selenide with Highly Tunable Band Gap. <i>Nano Letters</i> , 2016, 16, 3221-3229.	9.1	155
2	Laser-Ablation-Induced Synthesis of SiO ₂ -Capped Noble Metal Nanoparticles in a Single Step. <i>Langmuir</i> , 2010, 26, 7458-7463.	3.5	77
3	High-resolution electron-beam patternable nanocomposite containing metal nanoparticles for plasmonics. <i>Nanotechnology</i> , 2008, 19, 355308.	2.6	75
4	Photoluminescence waveguiding in CdSe and CdTe QDs/PMMA nanocomposite films. <i>Nanotechnology</i> , 2011, 22, 435202.	2.6	66
5	Localized surface plasmon resonance sensor based on Ag-PVA nanocomposite thin films. <i>Journal of Materials Chemistry</i> , 2009, 19, 9233.	6.7	59
6	Enhancing the photocatalytic properties of PbS QD solids: the ligand exchange approach. <i>Nanoscale</i> , 2019, 11, 1978-1987.	5.6	56
7	Novel Method of Preparation of Gold Nanoparticle-Doped TiO ₂ and SiO ₂ Plasmonic Thin Films: Optical Characterization and Comparison with Maxwell-Garnett Modeling. <i>Advanced Functional Materials</i> , 2011, 21, 3502-3507.	14.9	55
8	Au/ZnO Nanocomposite Films for Plasmonic Photocatalysis. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500156.	3.7	51
9	Plasmonic versus catalytic effect of gold nanoparticles on mesoporous TiO ₂ electrodes for water splitting. <i>Electrochimica Acta</i> , 2014, 144, 64-70.	5.2	46
10	Polymer/QDs Nanocomposites for Waveguiding Applications. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-9.	2.7	43
11	Optical properties of different polymer thin films containing in situ synthesized Ag and Au nanoparticles. <i>New Journal of Chemistry</i> , 2009, 33, 1720.	2.8	39
12	A novel method of nanocrystal fabrication based on laser ablation in liquid environment. <i>Superlattices and Microstructures</i> , 2008, 43, 487-493.	3.1	37
13	Scalable heterogeneous synthesis of metallic nanoparticles and aggregates with polyvinyl alcohol. <i>New Journal of Chemistry</i> , 2009, 33, 913.	2.8	37
14	The effect of quantum size confinement on the optical properties of PbSe nanocrystals as a function of temperature and hydrostatic pressure. <i>Nanotechnology</i> , 2013, 24, 205701.	2.6	37
15	Plasmonic optical sensors printed from Ag/PVA nanoinks. <i>Journal of Materials Chemistry C</i> , 2014, 2, 908-915.	5.5	37
16	Au-PVA Nanocomposite Negative Resist for One-Step Three-Dimensional e-Beam Lithography. <i>Langmuir</i> , 2010, 26, 2825-2830.	3.5	35
17	Ag and Au/DNQ-novolac nanocomposites patternable by ultraviolet lithography: a fast route to plasmonic sensor microfabrication. <i>Journal of Materials Chemistry</i> , 2010, 20, 7436.	6.7	34
18	DNA delivery to ex vivo human liver segments. <i>Gene Therapy</i> , 2012, 19, 504-512.	4.5	28

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19	Temperature Sensor Based on Colloidal Quantum Dots in PMMA Nanocomposite Waveguides. IEEE Sensors Journal, 2012, 12, 3069-3074.	4.7	26
20	Photonic Crystal-Driven Spectral Concentration for Upconversion Photovoltaics. Advanced Optical Materials, 2015, 3, 568-574.	7.3	26
21	Quantum-Dot Double Layer Polymer Waveguides by Evanescent Light Coupling. Journal of Lightwave Technology, 2013, 31, 2515-2525.	4.6	25
22	Strongly-coupled PbS QD solids by doctor blading for IR photodetection. RSC Advances, 2016, 6, 80201-80212.	3.6	25
23	Molecular-mediated assembly of silver nanoparticles with controlled interparticle spacing and chain length. Journal of Materials Chemistry, 2012, 22, 22204.	6.7	24
24	Molecularly imprinted nanocomposites of CsPbBr ₃ nanocrystals: an approach towards fast and selective gas sensing of explosive taggants. Journal of Materials Chemistry C, 2022, 10, 1754-1766.	5.5	24
25	Charge Transport in Trap-Sensitized Infrared PbS Quantum-Dot-Based Photoconductors: Pros and Cons. Nanomaterials, 2018, 8, 677.	4.1	23
26	Resist-based silver nanocomposites synthesized by lithographic methods. Microelectronic Engineering, 2010, 87, 1147-1149.	2.4	21
27	Propagation length enhancement of surface plasmon polaritons in gold nano-/micro-waveguides by the interference with photonic modes in the surrounding active dielectrics. Nanophotonics, 2017, 6, 1109-1120.	6.0	19
28	Ligand-Length Modification in CsPbBr ₃ Perovskite Nanocrystals and Bilayers with PbS Quantum Dots for Improved Photodetection Performance. Nanomaterials, 2020, 10, 1297.	4.1	19
29	Patterning of Conducting Polymers Using UV Lithography: The in-Situ Polymerization Approach. Journal of Physical Chemistry C, 2012, 116, 17547-17553.	3.1	18
30	Homogeneous and inhomogeneous broadening in single perovskite nanocrystals investigated by micro-photoluminescence. Journal of Luminescence, 2021, 240, 118453.	3.1	18
31	Efficient excitation of photoluminescence in a two-dimensional waveguide consisting of a quantum dot-polymer sandwich-type structure. Optics Letters, 2014, 39, 4962.	3.3	17
32	Molecularly Imprinted Silver Nanocomposites for Explosive Taggant Sensing. ACS Applied Polymer Materials, 2021, 3, 2960-2970.	4.4	17
33	UV-patternable nanocomposite containing CdSe and PbS quantum dots as miniaturized luminescent chemo-sensors. RSC Advances, 2015, 5, 19874-19883.	3.6	16
34	Solution-Processed Ni-Based Nanocomposite Electrocatalysts: An Approach to Highly Efficient Electrochemical Water Splitting. ACS Applied Energy Materials, 2021, 4, 5255-5264.	5.1	16
35	Charge dissipation in e-beam lithography with Novolak-based conducting polymer films. Nanotechnology, 2008, 19, 125302.	2.6	12
36	Laser ablation of a silicon target in chloroform: formation of multilayer graphite nanostructures. Journal Physics D: Applied Physics, 2013, 46, 135301.	2.8	12

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37	High spatial resolution mapping of individual and collective localized surface plasmon resonance modes of silver nanoparticle aggregates: correlation to optical measurements. <i>Nanoscale Research Letters</i> , 2015, 10, 1024.	5.7	12
38	Polymer waveguide couplers based on metal nanoparticle-polymer nanocomposites. <i>Nanotechnology</i> , 2015, 26, 475201.	2.6	12
39	Understanding Acid Reaction and Diffusion in Chemically Amplified Photoresists: An Approach at the Molecular Level. <i>Journal of Physical Chemistry C</i> , 2011, 115, 20367-20374.	3.1	11
40	MWP phase shifters integrated in PbS-SU8 waveguides. <i>Optics Express</i> , 2015, 23, 14351.	3.4	11
41	Au-NiO _x nanocomposite for hot electron-assisted plasmonic photocatalysis. <i>Journal of Materials Chemistry C</i> , 2020, 8, 9885-9897.	5.5	11
42	Colloidal Quantum Dots-PMMA Waveguides as Integrable Microwave Photonic Phase Shifters. <i>IEEE Photonics Technology Letters</i> , 2014, 26, 402-404.	2.5	10
43	Luminescent CdSe Quantum Dot Arrays for Rapid Sensing of Explosive Taggants. <i>ACS Applied Nano Materials</i> , 2022, 5, 6717-6725.	5.0	10
44	Enhanced optical response of InSe nanosheet devices decorated with CsPbX ₃ (X=Al, Br) perovskite nanocrystals. <i>Applied Surface Science</i> , 2021, 536, 147939.	6.1	9
45	Photoconductivity and optical properties of silicon coated by thin TiO ₂ film <i>in situ</i> doped by Au nanoparticles. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 687-694.	1.8	8
46	In-situ synthesis of thiophene-based multifunctional polymeric networks with tunable conductivity and high photolithographic performance. <i>Polymer</i> , 2017, 108, 413-422.	3.8	8
47	Self-Assembly of CsPbBr ₃ Perovskites in Micropatterned Polymeric Surfaces: Toward Luminescent Materials with Self-Cleaning Properties. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 20023-20031.	8.0	5
48	Metal-polymer nanocomposite resist: a step towards in-situ nanopatterns metallization. <i>Proceedings of SPIE</i> , 2013, , .	0.8	4
49	Two-Dimensional Indium Selenide for Sulphur Vapour Sensing Applications. <i>Nanomaterials</i> , 2020, 10, 1396.	4.1	4
50	Plasmon dumping in Ag-nanoparticles/polymer composite for optical detection of amines and thiols vapors. , 2012, , .		3
51	An advance Towards the Synthesis of Ag Nanorod Arrays with Controlled Surface Roughness for SERS Substrates. <i>Materials Today: Proceedings</i> , 2016, 3, 294-302.	1.8	3
52	Surface plasmon-polariton amplifiers. , 2012, , .		2
53	In Situ Synthesis of Conducting Polymers: A Novel Approach toward Polymer Thermoelectrics. <i>Journal of Physical Chemistry C</i> , 2020, 124, 22884-22892.	3.1	2
54	Photoswitchable bactericidal effects from novel silica-coated silver nanoparticles. <i>Proceedings of SPIE</i> , 2011, , .	0.8	1

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55	Novel patternable and conducting metal-polymer nanocomposites: a step towards advanced multifunctional materials. , 2013, , .		1
56	Light coupling from active polymer layers to hybrid dielectric-plasmonic waveguides. , 2013, , .		1
57	Photon plasmon coupling in nanocomposite plasmonic waveguides. , 2014, , .		1
58	Metasurfaces for colour printing. , 2014, , .		1
59	Colloidal QDs-polymer nanocomposites. Proceedings of SPIE, 2012, , .	0.8	0
60	Integrable microwave photonic phase-shifter based on Colloidal Quantum Dots-PMMA waveguide. , 2013, , .		0
61	Integrated microwave photonic phase-shifters based on colloidal quantum dots-PMMA nanocomposite waveguides. , 2013, , .		0
62	Numerical and experimental investigation of short Au nanorods. , 2014, , .		0
63	MWP true time delay implemented in PbS-SU8 waveguides. , 2015, , .		0
64	Preparation and processing of nanocomposites of all-inorganic lead halide perovskite nanocrystals. , 2021, , 19-93.		0
65	Dielectric and plasmonic waveguides based on quantum dots embedded in polymers. Optica Pura Y Aplicada, 2013, 46, 303-308.	0.1	0