Maria Bernechea

List of Publications by Year
in descending order

38 papers	3,728 citations	279798 23 h-index	361022 35 g-index
38 all docs	38 docs citations	38 times ranked	6666 citing authors

#	Article	IF	Citations
1	Hybrid grapheneâ€“quantum dot phototransistors with ultrahigh gain. Nature Nanotechnology, 2012, 7, 363-368.	31.5	1,936
2	Solution-processed solar cells based on environmentally friendly AgBiS2 nanocrystals. Nature Photonics, 2016, 10, 521-525.	31.4	298
3	Solution-processed inorganic bulk nano-heterojunctions and their application to solar cells. Nature Photonics, 2012, 6, 529-534.	31.4	221
4	Solutionâ€Processed Heterojunction Solar Cells Based on pâ€type PbS Quantum Dots and nâ€type Bi₂S₃ Nanocrystals. Advanced Materials, 2011, 23, 3712-3717.	21.0	179
5	Interface Engineering in Hybrid Quantum Dotâ€“2D Phototransistors. ACS Photonics, 2016, 3, 1324-1330.	6.6	122
6	Dendrimer-Encapsulated Pd Nanoparticles versus Palladium Acetate as Catalytic Precursors in the Stille Reaction in Water. Inorganic Chemistry, 2009, 48, 4491-4496.	4.0	99
7	Size and bandgap tunability in Bi₂S₃ colloidal nanocrystals and its effect in solution processed solar cells. Journal of Materials Chemistry A, 2015, 3, 20642-20648.	10.3	83
8	Research Update: Bismuth based materials for photovoltaics. APL Materials, 2018, 6, .	5.1	79
9	Near IRâ€Sensitive, Nonâ€toxic, Polymer/Nanocrystal Solar Cells Employing Bi₂S₃ as the Electron Acceptor. Advanced Energy Materials, 2011, 1, 1029-1035.	19.5	78
10	Remote Trap Passivation in Colloidal Quantum Dot Bulk Nanoâ€heterojunctions and Its Effect in Solutionâ€Processed Solar Cells. Advanced Materials, 2014, 26, 4741-4747.	21.0	62
11	Plasmonic light trapping leads to responsivity increase in colloidal quantum dot photodetectors. Applied Physics Letters, 2012, 100, .	3.3	52
12	Hybrid solution-processed bulk heterojunction solar cells based on bismuth sulfide nanocrystals. Physical Chemistry Chemical Physics, 2013, 15, 5482.	2.8	40
13	Matildite versus schapbachite: First-principles investigation of the origin of photoactivity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>AgBi</mml:mi><mml:msub><mml:m mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2016, 94, .	3.2	39
14	Solution Processed Bismuth Sulfide Nanowire Array Core/Silver Sulfide Shell Solar Cells. Chemistry of Materials, 2015, 27, 3700-3706.	6.7	37
15	Size- and Temperature-Dependent Carrier Dynamics in Oleic Acid Capped PbS Quantum Dots. Journal of Physical Chemistry C, 2013, 117, 1887-1892.	3.1	35
16	Tailoring the Electronic Properties of Colloidal Quantum Dots in Metalâ€“Semiconductor Nanocomposites for High Performance Photodetectors. Small, 2015, 11, 2636-2641.	10.0	35
17	Synthesis of Coreâ˜'Shell PtRu Dendrimer-Encapsulated Nanoparticles. Relevance as Electrocatalysts for CO Oxidation. Journal of Physical Chemistry C, 2011, 115, 1287-1294.	3.1	31
18	Alkynyldiphenylphosphine d8(Pt, Rh, Ir) Complexes:Â Contrasting Behavior towardcis-[Pt(C6F5)2(THF)2]. Inorganic Chemistry, 2004, 43, 8185-8198.	4.0	28

#	Article	IF	Citations
19	Diphenyl(phenylethynyl)phosphine d6 [Rh(III), Ir(III), Ru(II)] Complexes:â€‰ Preparation of Homo (Î¼-Cl)2 and Hetero (Î¼-Cl)(Î¼-PPh2Câ‹®CPh) Bridged d6âˆ’d8 Compounds. Organometallics, 2002, 21, 2314-2324.	2.3	27
20	Determination of carrier lifetime and mobility in colloidal quantum dot films via impedance spectroscopy. Applied Physics Letters, 2014, 104, .	3.3	27
21	Improved electronic coupling in hybrid organicâ€“inorganic nanocomposites employing thiol-functionalized P3HT and bismuth sulfide nanocrystals. Nanoscale, 2014, 6, 10018-10026.	5.6	24
22	(p-cymene)Ruthenium(II)(diphenylphosphino)alkyne Complexes:â€‰ Preparation of (Î¼-Cl)(Î¼-PPh2Câ‹®CR)-Bridged Ru/Pt Heterobimetallic Complexes. Organometallics, 2004, 23, 4288-4300.	2.3	23
23	Six-Coordinate Alkynyldiphenylphosphine Ruthenium(II) Complexes:â€‰ Synthesis, Structure, and Catalytic Activity as ROMP Initiators. Organometallics, 2006, 25, 684-692.	2.3	23
24	Facile Single or Double Câˆ’H Bond Activation on Î·2-Platinum-Complexed Acetylenes by Interaction with [cis-PtR2S2] and [cis-PtR2(CO)S] (R = C6F5, S = Thf). Organometallics, 2005, 24, 431-438.	2.3	22
25	Charge Photogeneration and Transport in AgBiS₂ Nanocrystal Films for Photovoltaics. Solar Rrl, 2019, 3, 1900075.	5.8	20
26	Electrical effects of metal nanoparticles embedded in ultra-thin colloidal quantum dot films. Applied Physics Letters, 2012, 101, 041103.	3.3	19
27	Coupling Resonant Modes of Embedded Dielectric Microspheres in Solutionâ€Processed Solar Cells. Advanced Optical Materials, 2013, 1, 139-143.	7.3	15
28	Facile Single or Double Câˆ’H Bond Activation on a Cp* Ligand Promoted by the Presence of Alkynylphosphine Ligands. Organometallics, 2009, 28, 312-320.	2.3	14
29	Earth-abundant non-toxic perovskite nanocrystals for solution processed solar cells. Materials Advances, 2021, 2, 4140-4151.	5.4	14
30	Rearrangement or Câˆ’H Activation Processes Promoted by Reaction with the Solvate [cis-Pt(C6F5)2(thf)2]. Organometallics, 2007, 26, 1161-1172.	2.3	13
31	Octahedral Alkynylphosphine Ruthenium(II) Complexes: Synthesis, Structure, and Electrochemistry. Organometallics, 2011, 30, 4665-4677.	2.3	9
32	Câ€“H and Pâ€“C(Ph) activation competitive processes caused by interaction with the solvate [cis-Pt(C6F5)2(thf)2]. Dalton Transactions, 2007, , 2384-2393.	3.3	8
33	Resonance energy transfer from PbS colloidal quantum dots to bulk silicon: the road to hybrid photovoltaics. , 2012, , .		7
34	Spectroscopic evidence of resonance energy transfer mechanism from PbS QDs to bulk silicon. EPJ Web of Conferences, 2013, 54, 01017.	0.3	4
35	Effect of oxidation temperature on the properties of NiOx layers for application in optical sensors. Thin Solid Films, 2021, 734, 138849.	1.8	3
36	Microresonators: Coupling Resonant Modes of Embedded Dielectric Microspheres in Solutionâ€Processed Solar Cells (Advanced Optical Materials 2/2013). Advanced Optical Materials, 2013, 1, 194-194.	7.3	1

#	Article	IF	Citations
37	Time-resolved spectroscopic study of resonant energy transfer between lead-sulphide quantum dots and bulk silicon. , 2015, , .		1
38	Bismuth-based nanomaterials for energy applications. , 2021, , 3-35.		0