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List of Publications by Year
in descending order

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56 papers	3,043 citations	257450 24 h-index	182427 51 g-index
56 all docs	56 docs citations	56 times ranked	3990 citing authors

#	Article	IF	Citations
1	Band-like transport in â€œgreenâ€• quantum dot films: The effect of composition and stoichiometry. Journal of Chemical Physics, 2022, 156, 104704.	3.0	0
2	Inverse-designed semiconductor nanocatalysts for targeted CO₂ reduction in water. Nanoscale, 2021, 13, 10024-10034.	5.6	4
3	Decoupling Radiative and Auger Processes in Semiconductor Nanocrystals by Shape Engineering. Journal of Physical Chemistry Letters, 2021, 12, 9155-9161.	4.6	2
4	Indirect to Direct Band Gap Transformation by Surface Engineering in Semiconductor Nanostructures. ACS Nano, 2021, 15, 20181-20191.	14.6	11
5	Optical properties of nanocrystal films: blue shifted transitions as signature of strong coupling. Nanoscale Advances, 2020, 2, 384-393.	4.6	5
6	Charge Dynamics in Quantum-Dotâ€“Acceptor Complexes in the Presence of Confining and Deconfining Ligands. Journal of Physical Chemistry Letters, 2020, 11, 280-285.	4.6	1
7	Tuning the Radiative Lifetime in InP Colloidal Quantum Dots by Controlling the Surface Stoichiometry. Journal of Physical Chemistry Letters, 2020, 11, 10124-10130.	4.6	15
8	New strategies for colloidal-quantum-dot-based intermediate-band solar cells. Journal of Chemical Physics, 2019, 151, 154101.	3.0	3
9	Effective Approach for an Order-of-Magnitude-Accurate Evaluation of the Electron Mobility in Colloidal Quantum Dot Films. Journal of Nanomaterials, 2019, 2019, 1-9.	2.7	3
10	Band-like electron transport in 2D quantum dot periodic lattices: the effect of realistic size distributions. Physical Chemistry Chemical Physics, 2019, 21, 25872-25879.	2.8	8
11	Theoretical Characterization of GaSb Colloidal Quantum Dots and Their Application to Photocatalytic CO₂ Reduction with Water. ACS Applied Materials & Interfaces, 2019, 11, 640-646.	8.0	11
12	Ultrafast Trap State-Mediated Electron Transfer for Quantum Dot Redox Sensing. Journal of Physical Chemistry C, 2018, 122, 10173-10180.	3.1	22
13	Suppression of Auger Recombination in Nanocrystals via Ligand-Assisted Wave Function Engineering in Reciprocal Space. Journal of Physical Chemistry Letters, 2018, 9, 2098-2104.	4.6	15
14	Efficient Mobility Calculation for Quantum Dot Superlattices. , 2018, , .		0
15	Multiscale in modelling and validation for solar photovoltaics. EPJ Photovoltaics, 2018, 9, 10.	1.6	6
16	Efficient, non-stochastic, Monte-Carlo-like-accurate method for the calculation of the temperature-dependent mobility in nanocrystal films. Nanoscale, 2018, 10, 9679-9690.	5.6	9
17	High-Mobility Toolkit for Quantum Dot Films. ACS Photonics, 2016, 3, 2059-2067.	6.6	15
18	Exciton Dynamics in InSb Colloidal Quantum Dots. Journal of Physical Chemistry Letters, 2016, 7, 31-35.	4.6	20

#	ARTICLE	IF	CITATIONS
19	Origins of improved carrier multiplication efficiency in elongated semiconductor nanostructures. Physical Chemistry Chemical Physics, 2015, 17, 2573-2581.	2.8	9
20	Effect of Chloride Passivation on Recombination Dynamics in CdTe Colloidal Quantum Dots. ChemPhysChem, 2015, 16, 1239-1244.	2.1	26
21	Origins of Photoluminescence Decay Kinetics in CdTe Colloidal Quantum Dots. ACS Nano, 2015, 9, 2960-2967.	14.6	31
22	Auger-Assisted Electron Transfer from Photoexcited Semiconductor Quantum Dots. Nano Letters, 2014, 14, 1263-1269.	9.1	197
23	Universal Trapping Mechanism in Semiconductor Nanocrystals. Nano Letters, 2013, 13, 2047-2052.	9.1	55
24	Hole Surface Trapping in CdSe Nanocrystals: Dynamics, Rate Fluctuations, and Implications for Blinking. Nano Letters, 2012, 12, 4508-4517.	9.1	78
25	Off-State Quantum Yields in the Presence of Surface Trap States in CdSe Nanocrystals: The Inadequacy of the Charging Model To Explain Blinking. Journal of Physical Chemistry C, 2011, 115, 18051-18054.	3.1	30
26	Photoinduced Surface Trapping and the Observed Carrier Multiplication Yields in Static CdSe Nanocrystal Samples. ACS Nano, 2011, 5, 3614-3621.	14.6	24
27	Size-Dependent Valence and Conduction Band-Edge Energies of Semiconductor Nanocrystals. ACS Nano, 2011, 5, 5888-5902.	14.6	600
28	Monotonic Evolution of the Optical Properties in the Transition from Three- to Quasi-Two-Dimensional Quantum Confinement in InAs Nanorods. Journal of Physical Chemistry C, 2010, 114, 6901-6908.	3.1	9
29	Si/SiGe quantum cascade superlattice designs for terahertz emission. Journal of Applied Physics, 2010, 107, 053109.	2.5	21
30	Pseudopotential study of electronic and optical properties of InAs semiconductor nanostructures. , 2010, , .		0
31	The effect of small elongations on the electronic and optical signatures in InAs nanocrystal quantum dots. Journal of Physics Condensed Matter, 2009, 21, 144212.	1.8	2
32	Re-examination of the Size-Dependent Absorption Properties of CdSe Quantum Dots. Journal of Physical Chemistry C, 2009, 113, 19468-19474.	3.1	523
33	Electron Relaxation Following UV Excitation in CdSe Nanocrystals: Sub-Picosecond-Fast Population of the 1<i>P</i> States Across a Gap Wider Than 10 Phonon Energies. Journal of Physical Chemistry C, 2009, 113, 19859-19862.	3.1	4
34	Direct and Inverse Auger Processes in InAs Nanocrystals: Can the Decay Signature of a Trion Be Mistaken for Carrier Multiplication?. ACS Nano, 2009, 3, 2706-2714.	14.6	32
35	Model-independent determination of the carrier multiplication time constant in CdSe nanocrystals. Physical Chemistry Chemical Physics, 2009, 11, 10180.	2.8	3
36	Interband and intraband optical transitions in InAs nanocrystal quantum dots: A pseudopotential approach. Physical Review B, 2008, 78, .	3.2	42

#	Article	IF	Citations
37	SiGe/Si quantum cascade structures deposited by low-energy plasma-enhanced CVD. , 2008, , .		2
38	Efficient Auger Electron Cooling in Seemingly Unfavorable Configurations: Hole Traps and Electrochemical Charging. Journal of Physical Chemistry C, 2008, 112, 8570-8574.	3.1	10
39	Non radiative decay processes in nanocrystals: Is the Auger model consistent with experiment?. , 2008, , .		0
40	Excited-state relaxation in PbSe quantum dots. Journal of Chemical Physics, 2008, 128, 164720.	3.0	47
41	Interwell relaxation times inpâ˜Siâˆ•SiGeasymmetric quantum well structures: Role of interface roughness. Physical Review B, 2007, 75, .	3.2	32
42	Giant suppression of Auger electron cooling in charged nanocrystals. Applied Physics Letters, 2007, 91, 172114.	3.3	4
43	Lifetime and polarization of the radiative decay of excitons, biexcitons, and trions in CdSe nanocrystal quantum dots. Physical Review B, 2007, 75, .	3.2	96
44	Optical properties of single semiconductor nanocrystals. Physical Chemistry Chemical Physics, 2006, 8, 4989-5011.	2.8	127
45	Spin precession in a fractional quantum Hall state with spin-orbit coupling. Applied Physics Letters, 2005, 87, 112508.	3.3	2
46	Temperature Dependence of Excitonic Radiative Decay in CdSe Quantum Dots:Â The Role of Surface Hole Traps. Nano Letters, 2005, 5, 2360-2364.	9.1	179
47	Anisotropy of interband transitions in InAs quantum wires:â€ƒAn atomistic theory. Physical Review B, 2004, 70, .	3.2	30
48	Efficient Inverse Auger Recombination at Threshold in CdSe Nanocrystals. Nano Letters, 2004, 4, 525-531.	9.1	77
49	Direct carrier multiplication due to inverse Auger scattering in CdSe quantum dots. Applied Physics Letters, 2004, 84, 2409-2411.	3.3	100
50	Pseudopotential Theory of Auger Processes in CdSe Quantum Dots. Physical Review Letters, 2003, 91, 056404.	7.8	254
51	Prediction of a Shape-Induced Enhancement in the Hole Relaxation in Nanocrystals. Nano Letters, 2003, 3, 1197-1202.	9.1	41
52	Composition, volume, and aspect ratio dependence of the strain distribution, band lineups and electron effective masses in self-assembled pyramidal In[sub 1â˜x]Ga[sub x]As/GaAs and Si[sub x]Ge[sub 1â˜x]/Si quantum dots. Journal of Applied Physics, 2002, 91, 389.	2.5	40
53	A Single-Band Constant-Confining-Potential Model for Self-Assembled InAs/GaAs Quantum Dots. Materials Research Society Symposia Proceedings, 2000, 642, 141.	0.1	1
54	Quantum box energies as a route to the ground state levels of self-assembled InAs pyramidal dots. Journal of Applied Physics, 2000, 88, 5870-5874.	2.5	25

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55	Presentation and experimental validation of a single-band, constant-potential model for self-assembled InAs/GaAs quantum dots. Physical Review B, 2000, 61, 10959-10965.	3.2	100
56	Approximate methods for the solution of quantum wires and dots: Connection rules between pyramidal, cuboidal, and cubic dots. Journal of Applied Physics, 1999, 86, 5054-5059.	2.5	40