Hirendra N Ghosh

List of Publications by Year
in descending order

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177 papers	7,105 citations	81900 39 h-index	71685 76 g-index
178 all docs	178 docs citations	178 times ranked	6993 citing authors

#	Article	IF	Citations
1	Ultrafast Electron Transfer Dynamics from Molecular Adsorbates to Semiconductor Nanocrystalline Thin Films. Journal of Physical Chemistry B, 2001, 105, 4545-4557.	2.6	594
2	Femtosecond IR Study of Excited-State Relaxation and Electron-Injection Dynamics of Ru(dcbpy)2(NCS)2in Solution and on Nanocrystalline TiO2and Al2O3Thin Films. Journal of Physical Chemistry B, 1999, 103, 3110-3119.	2.6	385
3	Dynamics of Electron Injection in Nanocrystalline Titanium Dioxide Films Sensitized with [Ru(4,4â€˜-dicarboxy-2,2â€˜-bipyridine)2(NCS)2] by Infrared Transient Absorption. Journal of Physical Chemistry B, 1998, 102, 6455-6458.	2.6	292
4	Evidences of hot excited state electron injection from sensitizer molecules to TiO2 nanocrystalline thin films. Research on Chemical Intermediates, 2001, 27, 393-406.	2.7	284
5	Direct Observation of Ultrafast Electron Injection from Coumarin 343 to TiO2Nanoparticles by Femtosecond Infrared Spectroscopy. Journal of Physical Chemistry B, 1998, 102, 6482-6486.	2.6	196
6	Interfacial Electron Transfer between Fe(II)(CN)64-and TiO2Nanoparticles:Â Direct Electron Injection and Nonexponential Recombination. Journal of Physical Chemistry B, 1998, 102, 10208-10215.	2.6	181
7	Phenol- and Catechol-Based Ruthenium(II) Polypyridyl Complexes as Colorimetric Sensors for Fluoride Ions. Inorganic Chemistry, 2007, 46, 5576-5584.	4.0	152
8	Charge recombination reactions in photoexcited fullerene C60-amine complexes studied by picosecond pump probe spectroscopy. Journal of the American Chemical Society, 1993, 115, 11722-11727.	13.7	136
9	Emission from the Charge Transfer State of Xanthene Dye-Sensitized TiO2 Nanoparticles:â€‰ A New Approach to Determining Back Electron Transfer Rate and Verifying the Marcus Inverted Regime. Journal of Physical Chemistry B, 2001, 105, 7000-7008.	2.6	132
10	Effect of Particle Size on the Reactivity of Quantum Size ZnO Nanoparticles and Charge-Transfer Dynamics with Adsorbed Catechols. Langmuir, 2003, 19, 3006-3012.	3.5	126
11	Exciton Energy and Charge Transfer in Porphyrin Aggregate/Semiconductor (TiO₂) Composites. Journal of Physical Chemistry Letters, 2012, 3, 1877-1884.	4.6	113
12	Ultrafast Charge Carrier Relaxation and Charge Transfer Dynamics of CdTe/CdS Coreâ”Shell Quantum Dots as Studied by Femtosecond Transient Absorption Spectroscopy. Journal of Physical Chemistry C, 2010, 114, 1460-1466.	3.1	111
13	Optical and Photochemical Properties of Sodium Dodecylbenzenesulfonate (DBS)-Capped TiO2Nanoparticles Dispersed in Nonaqueous Solvents. Langmuir, 2003, 19, 505-508.	3.5	109
14	Strongly Coupled Rutheniumâ”Polypyridyl Complexes for Efficient Electron Injection in Dye-Sensitized Semiconductor Nanoparticles. Journal of Physical Chemistry B, 2005, 109, 15445-15453.	2.6	109
15	Ultrafast Intermolecular Hydrogen Bond Dynamics in the Excited State of Fluorenone. Journal of Physical Chemistry A, 2005, 109, 8693-8704.	2.5	100
16	Efficient Electron Injection from Twisted Intramolecular Charge Transfer (TICT) State of 7-Diethyl amino coumarin 3-carboxylic Acid (D-1421) Dye to TiO2 Nanoparticle. Journal of Physical Chemistry A, 2002, 106, 2545-2553.	2.5	98
17	Dynamics of Interfacial Electron Transfer from Photoexcited Quinizarin (Qz) into the Conduction Band of TiO2and Surface States of ZrO2Nanoparticles. Journal of Physical Chemistry B, 2004, 108, 4775-4783.	2.6	95
18	Ultrafast Relaxation Dynamics in Graphene Oxide: Evidence of Electron Trapping. Journal of Physical Chemistry C, 2011, 115, 19110-19116.	3.1	95

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19	Aggregation of C70 in Solvent Mixtures. The Journal of Physical Chemistry, 1996, 100, 9439-9443.	2.9	88
20	Dynamics of Back-Electron Transfer Processes of Strongly Coupled Triphenyl Methane Dyes Adsorbed on TiO2 Nanoparticle Surface as Studied by Fast and Ultrafast Visible Spectroscopy. Journal of Physical Chemistry B, 2001, 105, 12786-12796.	2.6	87
21	Slow Back Electron Transfer in Surface-Modified TiO2 Nanoparticles Sensitized by Alizarin. Journal of Physical Chemistry B, 2004, 108, 1701-1707.	2.6	85
22	Interfacial Electron Transfer between the Photoexcited Porphyrin Molecule and TiO2Nanoparticles:Â Effect of Catecholate Binding. Journal of Physical Chemistry B, 2006, 110, 9012-9021.	2.6	80
23	Efficient Photosensitizing Capabilities and Ultrafast Carrier Dynamics of Doped Carbon Dots. Journal of the American Chemical Society, 2019, 141, 15413-15422.	13.7	74
24	Charge Separation by Indirect Bandgap Transitions in CdS/ZnSe Type-II Core/Shell Quantum Dots. Journal of Physical Chemistry C, 2013, 117, 10901-10908.	3.1	71
25	Ultrafast Charge Transfer Dynamics in Photoexcited CdTe Quantum Dot Decorated on Graphene. Journal of Physical Chemistry C, 2012, 116, 16271-16275.	3.1	68
26	Polaron-Mediated Slow Carrier Cooling in a Type-1 3D/0D CsPbBr₃@Cs₄PbBr₆ Coreâ€“Shell Perovskite System. Journal of Physical Chemistry Letters, 2019, 10, 5302-5311.	4.6	66
27	Charge carrier dynamics in thiol capped CdTe quantum dots. Physical Chemistry Chemical Physics, 2010, 12, 4210.	2.8	65
28	Photoinduced ultrafast charge separation in colloidal 2-dimensional CdSe/CdS-Au hybrid nanoplatelets and corresponding application in photocatalysis. Nanoscale, 2016, 8, 15802-15812.	5.6	63
29	Interfacial Electron-Transfer Dynamics on TiO₂ and ZrO₂ Nanoparticle Surface Sensitized by New Catechol Derivatives of Os(II)-polypyridyl Complexes:â€‰ Monitoring by Charge-Transfer Emission. Journal of Physical Chemistry C, 2008, 112, 2918-2926.	3.1	62
30	Ultrafast Charge Carrier Delocalization in CdSe/CdS Quasi-Type II and CdS/CdSe Inverted Type I Coreâ€“Shell: A Structural Analysis through Carrier-Quenching Study. Journal of Physical Chemistry C, 2015, 119, 26202-26211.	3.1	62
31	The Effect of Heavy Atoms on Photoinduced Electron Injection from Nonthermalized and Thermalized Donor States of M^{II}â€“Polypyridyl (M=Ru/Os) Complexes to Nanoparticulate TiO₂ Surfaces: An Ultrafast Timeâ€Resolved Absorption Study. Chemistry - A European Journal, 2010, 16, 611-619.	3.3	60
32	Electron Trap to Electron Storage Center in Specially Aligned Mn-Doped CdSe d-Dot: A Step Forward in the Design of Higher Efficient Quantum-Dot Solar Cell. Journal of Physical Chemistry Letters, 2014, 5, 2836-2842.	4.6	58
33	Sub-Picosecond IR Study of the Reactive Intermediate in an Alkane Câ^'H Bond Activation Reaction by CpRh(CO)2. Organometallics, 1998, 17, 3417-3419.	2.3	57
34	Ultrafast Hole Transfer in CdSe/ZnTe Type II Coreâ^'Shell Nanostructure. Journal of Physical Chemistry C, 2011, 115, 1428-1435.	3.1	54
35	Ultrafast Hole- and Electron-Transfer Dynamics in CdSâ€“Dibromofluorescein (DBF) Supersensitized Quantum Dot Solar Cell Materials. Journal of Physical Chemistry Letters, 2013, 4, 4020-4025.	4.6	53
36	Evidence of Multiple Electron Injection and Slow Back Electron Transfer in Alizarin-Sensitized Ultrasmall TiO2 Particles. Journal of Physical Chemistry C, 2009, 113, 3593-3599.	3.1	51

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37	Multiple Charge Transfer Dynamics in Colloidal CsPbBr₃ Perovskite Quantum Dots Sensitized Molecular Adsorbate. Journal of Physical Chemistry C, 2016, 120, 18348-18354.	3.1	51
38	Effect of Surface Modification on Back Electron Transfer Dynamics of Dibromo Fluorescein Sensitized TiO2 Nanoparticles. Langmuir, 2004, 20, 1430-1435.	3.5	48
39	Subpicosecond Exciton Dynamics and Biexcitonic Feature in Colloidal CuInS₂ Nanocrystals: Role of Inâ€“Cu Antisite Defects. Journal of Physical Chemistry Letters, 2015, 6, 3458-3465.	4.6	45
40	Slow Electron Cooling Dynamics Mediated by Electronâ€“Hole Decoupling in Highly Luminescent CdS_xSe_{1â€“x} Alloy Quantum Dots. Journal of Physical Chemistry C, 2015, 119, 10785-10792.	3.1	41
41	Ultrafast Carrier Dynamics of the Exciton and Trion in MoS₂ Monolayers Followed by Dissociation Dynamics in Au@MoS₂ 2D Heterointerfaces. Journal of Physical Chemistry Letters, 2019, 10, 3057-3063.	4.6	41
42	Twisting Dynamics in the Excited Singlet State of Michler's Ketone. Journal of Physical Chemistry A, 2006, 110, 3432-3446.	2.5	38
43	Effect of Surface States on Charge-Transfer Dynamics in Type II CdTe/ZnTe Coreâ€“Shell Quantum Dots: A Femtosecond Transient Absorption Study. Journal of Physical Chemistry C, 2011, 115, 12335-12342.	3.1	38
44	Interfacial Electron Transfer Dynamics Involving a New Bis-Thiocyanate Ruthenium(II)â^'Polypyridyl Complex, Coupled Strongly to Nanocrystalline TiO₂, through a Pendant Catecholate Functionality. Journal of Physical Chemistry C, 2009, 113, 7970-7977.	3.1	37
45	Excitonâ€Coupled Chargeâ€Transfer Dynamics in a Porphyrin Jâ€Aggregate/TiO₂ Complex. Chemistry - A European Journal, 2011, 17, 3458-3464.	3.3	37
46	Ultrafast Hole/Electron Transfer Dynamics in a CdSe Quantum Dot Sensitized by Pyrogallol Red: A Super-Sensitization System. Journal of Physical Chemistry C, 2014, 118, 16358-16365.	3.1	37
47	Hot-electron transfer from the semiconductor domain to the metal domain in CdSe@CdS{Au} nano-heterostructures. Nanoscale, 2017, 9, 9723-9731.	5.6	37
48	Photophysics and Ultrafast Relaxation Dynamics of the Excited States of Dimethylaminobenzophenone. Journal of Physical Chemistry A, 2004, 108, 2583-2597.	2.5	36
49	Lattice-Strain-Induced Slow Electron Cooling Due to Quasi-Type-II Behavior in Type-I CdTe/ZnS Nanocrystals. Journal of Physical Chemistry C, 2015, 119, 8410-8416.	3.1	36
50	S2 Fluorescence and Ultrafast Relaxation Dynamics of the S2 and S1 States of a Ketocyanine Dye. Journal of Physical Chemistry A, 2005, 109, 6836-6846.	2.5	35
51	Ultrafast Intramolecular Electronic Energy-Transfer Dynamics in a Bichromophoric Moleculeâ€. Journal of Physical Chemistry A, 2004, 108, 7843-7852.	2.5	34
52	Extensive Reduction in Back Electron Transfer in Twisted Intramolecular Chargeâ€Transfer (TICT) Coumarinâ€Dyeâ€Sensitized TiO₂ Nanoparticles/Film: A Femtosecond Transient Absorption Study. Chemistry - A European Journal, 2014, 20, 3510-3519.	3.3	34
53	Efficient Charge Separation in TiO₂ Films Sensitized with Ruthenium(II)â€“Polypyridyl Complexes: Hole Stabilization by Ligandâ€Localized Chargeâ€Transfer States. Chemistry - A European Journal, 2011, 17, 1561-1568.	3.3	33
54	Unusually Slow Electron Cooling to Charge-Transfer State in Gradient CdTeSe Alloy Nanocrystals Mediated through Mn Atom. Journal of Physical Chemistry Letters, 2016, 7, 1359-1367.	4.6	33

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55	Hot Charge Carrier Extraction from Semiconductor Quantum Dots. Journal of Physical Chemistry C, 2018, 122, 17586-17600.	3.1	33
56	Concurrent Ultrafast Electron- and Hole-Transfer Dynamics in CsPbBr₃ Perovskite and Quantum Dots. ACS Omega, 2018, 3, 2706-2714.	3.5	32
57	Effect of Confinement on the Exciton and Biexciton Dynamics in Perovskite 2D-Nanosheets and 3D-Nanocrystals. Journal of Physical Chemistry Letters, 2020, 11, 6344-6352.	4.6	32
58	Micellar extraction assisted fluorometric determination of ultratrace amount of uranium in aqueous samples by novel diglycolamide-capped quantum dot nanosensor. Sensors and Actuators B: Chemical, 2017, 253, 592-602.	7.8	31
59	Defect-Mediated Slow Carrier Recombination and Broad Photoluminescence in Non-Metal-Doped ZnIn₂S₄ Nanosheets for Enhanced Photocatalytic Activity. Journal of Physical Chemistry Letters, 2021, 12, 5000-5008.	4.6	31
60	Does Bridging Geometry Influence Interfacial Electron Transfer Dynamics? Case of the Enediol-TiO₂ System. Journal of Physical Chemistry C, 2012, 116, 98-103.	3.1	30
61	Hotâ€Hole Extraction from Quantum Dot to Molecular Adsorbate. Chemistry - A European Journal, 2015, 21, 4405-4412.	3.3	30
62	Size of CdTe Quantum Dots Controls the Hole Transfer Rate in CdTe Quantum Dotsâ€“MEHPPV Polymer Nanoparticle Hybrid. Journal of Physical Chemistry C, 2016, 120, 25142-25150.	3.1	30
63	Charge carrier cascade in Type II CdSeâ€“CdTe graded coreâ€“shell interface. Journal of Materials Chemistry C, 2013, 1, 2755.	5.5	28
64	Electron-Transfer-Mediated Uranium Detection Using Quasi-Type II Coreâ€“Shell Quantum Dots: Insight into Mechanistic Pathways. Langmuir, 2017, 33, 8114-8122.	3.5	28
65	Exciton delocalization and hot hole extraction in CdSe QDs and CdSe/ZnS type 1 core shell QDs sensitized with newly synthesized thiols. Nanoscale, 2016, 8, 1823-1833.	5.6	27
66	Exciton Separation in CdS Supraparticles upon Conjugation with Graphene Sheets. Journal of Physical Chemistry C, 2017, 121, 6581-6588.	3.1	27
67	Concurrent Energy- and Electron-Transfer Dynamics in Photoexcited Mn-Doped CsPbBr₃ Perovskite Nanoplatelet Architecture. Journal of Physical Chemistry Letters, 2021, 12, 302-309.	4.6	27
68	Physicochemical and Photophysical Studies on Porphyrin-Based Donorâ€”Acceptor Systems:â€‰ Effect of Redox Potentials on Ultrafast Electron-Transfer Dynamics. Journal of Physical Chemistry B, 2007, 111, 9078-9087.	2.6	26
69	On the Role of Hydrogen Bonds in Photoinduced Electronâ€Transfer Dynamics between 9â€Fluorenone and Amine Solvents. Chemistry - A European Journal, 2012, 18, 4930-4937.	3.3	26
70	Super Sensitization: Grand Charge (Hole/Electron) Separation in ATC Dye Sensitized CdSe, CdSe/ZnS Typeâ€I, and CdSe/CdTe Typeâ€II Coreâ€“Shell Quantum Dots. Chemistry - A European Journal, 2014, 20, 13305-13313.	3.3	26
71	Enhanced Charge Separation in an Epitaxial Metalâ€“Semiconductor Nanohybrid Material Anchored with an Organic Molecule. Journal of Physical Chemistry C, 2015, 119, 22181-22189.	3.1	26
72	Ultrafast Charge Delocalization Dynamics of Ambient Stable CsPbBr₃ Nanocrystals Encapsulated in Polystyrene Fiber. Chemistry - A European Journal, 2021, 27, 683-691.	3.3	26

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73	The Role of Hydrogenâ€Bonding Interactions in the Ultrafast Relaxation Dynamics of the Excited States of 3â€•and 4â€Aminofluorenâ€9â€•ones. ChemPhysChem, 2009, 10, 2995-3012.	2.1	25
74	Interfacial Electron Transfer Dynamics of Two Newly Synthesized Catecholate Bound Ru^{II} Polypyridylâ€Based Sensitizers on TiO₂ Nanoparticle Surface â€“ A Femtosecond Pump Probe Spectroscopic Study. European Journal of Inorganic Chemistry, 2011, 2011, 4187-4197.	2.0	25
75	Photosensitization of nanoparticulate TiO2 using a Re(i)-polypyridyl complex: studies on interfacial electron transfer in the ultrafast time domain. Physical Chemistry Chemical Physics, 2012, 14, 8192.	2.8	25
76	Tuning Interfacial Charge Separation by Molecular Twist: A New Insight into Coumarin-Sensitized TiO₂ Films. Journal of Physical Chemistry C, 2014, 118, 10661-10669.	3.1	25
77	Intraband Electron Cooling Mediated Unprecedented Photocurrent Conversion Efficiency of CdS_xSe_{1â€“x} Alloy QDs: Direct Correlation between Electron Cooling and Efficiency. Journal of Physical Chemistry C, 2016, 120, 21309-21316.	3.1	25
78	Chemically clean single-step oxido-reductive synthesis of green luminescent graphene quantum dots as impending electrocatalyst. Carbon, 2016, 109, 517-528.	10.3	25
79	Probing Ultrafast Charge Separation in CZTS/CdS Heterojunctions through Femtosecond Transient Absorption Spectroscopy. Journal of Physical Chemistry C, 2020, 124, 19476-19483.	3.1	25
80	Experimental and Theoretical Study into Interface Structure and Band Alignment of the Cu₂Zn_{1â€“x}Cd_xSnS₄ Heterointerface for Photovoltaic Applications. ACS Applied Energy Materials, 2020, 3, 5153-5162.	5.1	25
81	Ultrafast Hot Electron Transfer and Trap-State Mediated Charge Carrier Separation toward Enhanced Photocatalytic Activity in g-C₃N₄/ZnIn₂S₄ Heterostructure. Journal of Physical Chemistry Letters, 2021, 12, 11865-11872.	4.6	25
82	Charge-Transfer-Induced Twisting of the Nitro Group. Journal of Physical Chemistry A, 2007, 111, 6122-6126.	2.5	24
83	Involvement of Sub-Bandgap States in Subpicosecond Exciton and Biexciton Dynamics of Ternary AgInS₂ Nanocrystals. Journal of Physical Chemistry Letters, 2016, 7, 3206-3214.	4.6	24
84	Hot Carrier Relaxation in CsPbBr₃-Based Perovskites: A Polaron Perspective. Journal of Physical Chemistry Letters, 2020, 11, 8765-8776.	4.6	24
85	Sub-picosecond Injection of Electrons from Excited [Ru(2,2â€²-bipy-4,4â€²-dicarboxy)₂(SCN)₂] into TiO₂ Using Transient Mid-Infrared Spectroscopy*. Zeitschrift Fur Physikalische Chemie, 1999, 212, 77-84.	2.8	23
86	Light Harvesting and Photocurrent Generation in a Conjugated Polymer Nanoparticleâ€“Reduced Graphene Oxide Composite. ChemPhysChem, 2017, 18, 1308-1316.	2.1	23
87	Efficient charge transport in surface engineered TiO2 nanoparticulate photoanodes leading to improved performance in quantum dot sensitized solar cells. Solar Energy, 2019, 181, 195-202.	6.1	23
88	Fast Polaron Formation and Low Carrier Mobility in Defect-Free Polyhedral CsPbBr₃ Perovskite Nanocrystals. ACS Photonics, 2022, 9, 969-978.	6.6	23
89	Synthesis, Characterization, Physicochemical, and Photophysical Studies of Redox Switchable NIR Dye Derived from a Rutheniumâ€“Dioxoleneâ€“Porphyrin System. Inorganic Chemistry, 2005, 44, 2414-2425.	4.0	22
90	Recent Progress of Electron Storage Mn Center in Doped Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 10703-10719.	3.1	22

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91	Ultrafast Plasmon Dynamics and Holeâ€“Phonon Coupling in NIR Active Nonstoichiometric Semiconductor Plasmonic Cu_{2â€“x}S Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 28401-28410.	3.1	22
92	Temperature-Dependent Interplay of Polaron Formation and Hot Carrier Cooling Dynamics in CsPbBr₃ Nanocrystals: Role of Carrierâ€“Phonon Coupling Strength. Journal of Physical Chemistry Letters, 2020, 11, 6206-6213.	4.6	22
93	Sequential Energy and Electron Transfer in Polynuclear Complex Sensitized TiO₂ Nanoparticles. Journal of Physical Chemistry Letters, 2012, 3, 1543-1548.	4.6	21
94	Ultrafast Electron Injection, Hole Transfer, and Charge Recombination Dynamics in CdSe QD Super-Sensitized Re(I)â€“Polypyridyl Complexes with Catechol and Resorcinol Moiety: Effect of Coupling. Journal of Physical Chemistry C, 2015, 119, 3522-3529.	3.1	21
95	Density functional investigation and some optical experiments on dye-sensitized quantum dots. Physical Chemistry Chemical Physics, 2015, 17, 28683-28696.	2.8	21
96	Electrochemical Evaluation of Dopant Energetics and the Modulation of Ultrafast Carrier Dynamics in Cu-Doped CdSe Nanocrystals. Journal of Physical Chemistry C, 2017, 121, 27233-27240.	3.1	21
97	Ternary Metal Chalcogenides: Into the Exciton and Biexciton Dynamics. Journal of Physical Chemistry Letters, 2019, 10, 6227-6238.	4.6	21
98	Boosting the Efficiency of Quantum Dot-Sensitized Solar Cells through Formation of the Cation-Exchanged Hole Transporting Layer. Langmuir, 2018, 34, 50-57.	3.5	20
99	Effect of Molecular Structure on Interfacial Electron Transfer Dynamics of 7-N,N-Dimethyl Coumarin 4-Acetic Acid (DMACA) and 7-Hydroxy Coumarin 4-Acetic Acid (HCA) Sensitized TiO2and ZrO2Nanoparticles. Journal of Physical Chemistry B, 2004, 108, 12489-12496.	2.6	19
100	Efficient luminescence and photocatalytic behaviour in ultrafine TiO2 particles synthesized by arrested precipitation. Journal of Materials Chemistry, 2009, 19, 3523.	6.7	19
101	Ultrafast Forward and Backward Electron Transfer Dynamics of Coumarin 337 in Hydrogen-Bonded Anilines As Studied with Femtosecond UV-Pump/IR-Probe Spectroscopy. Journal of Physical Chemistry A, 2011, 115, 664-670.	2.5	19
102	Direct Correlation of Excitonics with Efficiency in a Coreâ€“Shell Quantum Dot Solar Cell. Chemistry - A European Journal, 2018, 24, 2418-2425.	3.3	19
103	Exploring the Carrier Dynamics in Zinc Oxideâ€“Metal Halide-Based Perovskite Nanostructures: Toward Reduced Dielectric Loss and Improved Photocurrent. Journal of Physical Chemistry C, 2018, 122, 27273-27283.	3.1	19
104	Ultrafast Electron-Transfer and -Trapping Dynamics in the Inter-Band-Gap States of ZrO₂ Nanoparticles Sensitized by Baicalein. Journal of Physical Chemistry C, 2013, 117, 17531-17539.	3.1	17
105	Ultrafast excited state dynamics of S2 and S1 states of triphenylmethane dyes. Physical Chemistry Chemical Physics, 2014, 16, 16824-16831.	2.8	17
106	Charge Delocalization in the Cascade Band Structure CdS/CdSe and CdS/CdTe Coreâ€“Shell Sensitized with Re(I)â€“Polypyridyl Complex. Journal of Physical Chemistry C, 2016, 120, 10051-10061.	3.1	17
107	Tuning the Charge Carrier Dynamics via Interfacial Alloying in Core/Shell CdTe/ZnSe NCs. Journal of Physical Chemistry C, 2016, 120, 1918-1925.	3.1	17
108	An Insight into the Interface through Excited-State Carrier Dynamics for Promising Enhancement of Power Conversion Efficiency in a Mn-Doped CdZnSSe Gradient Alloy. Chemistry - A European Journal, 2017, 23, 3755-3763.	3.3	17

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109	Exciton Dynamics and Formation Mechanism of MEH-PPV Polymer-Based Nanostructures. Journal of Physical Chemistry C, 2017, 121, 21062-21072.	3.1	17
110	Restriction of Molecular Rotation and Intramolecular Charge Distribution in the Photoexcited State of Coumarin Dyes on Gold Nanoparticle Surface. Journal of Physical Chemistry C, 2015, 119, 2046-2052.	3.1	16
111	Temperature-Dependent Ultrafast Charge Carrier Dynamics in Amorphous and Crystalline Sb₂Se₃ Thin Films. Journal of Physical Chemistry C, 2021, 125, 5197-5206.	3.1	16
112	Interfacing g-C₃N₄ Nanosheets with CdS Nanorods for Enhanced Photocatalytic Hydrogen Evolution: An Ultrafast Investigation. Journal of Physical Chemistry B, 2022, 126, 572-580.	2.6	16
113	Effect of strong coupling on interfacial electron transfer dynamics in dye-sensitized TiO2 semiconductor nanoparticles. Journal of Chemical Sciences, 2007, 119, 205-215.	1.5	15
114	Hydrogen Bond and Ligand Dissociation Dynamics in Fluoride Sensing of Re(I)â€“Polypyridyl Complex. Journal of Physical Chemistry B, 2015, 119, 14952-14958.	2.6	15
115	Inhibiting Interfacial Charge Recombination for Boosting Power Conversion Efficiency in CdSe{Au} Nanohybrid Sensitized Solar Cell. Journal of Physical Chemistry C, 2018, 122, 13277-13284.	3.1	15
116	Correlating Chargeâ€Carrier Dynamics with Efficiency in Quantumâ€Dot Solar Cells: Can Excitonics Lead to Highly Efficient Devices?. Chemistry - A European Journal, 2019, 25, 692-702.	3.3	15
117	Mechanistic Insights for Photoelectrochemical Ethanol Oxidation on Black Gold Decorated Monoclinic Zirconia. ACS Applied Materials & Interfaces, 2021, 13, 9942-9954.	8.0	15
118	Ultrafast Insights into High Energy (C and D) Excitons in Few Layer WS₂. Journal of Physical Chemistry Letters, 2021, 12, 6526-6534.	4.6	15
119	Relaxation dynamics in the excited states of a ketocyanine dye probed by femtosecond transient absorption spectroscopy. Journal of Chemical Sciences, 2008, 120, 45-55.	1.5	14
120	Sensitization of TiO2 nanoparticles in micro-emulsion by photo-excited dye molecules: A femtosecond transient absorption study. Journal of Photochemistry and Photobiology A: Chemistry, 2009, 204, 209-216.	3.9	14
121	Electron Injection into the Surface States of ZrO2Nanoparticles from Photoexcited Quinizarin and Its Derivatives:Â Effect of Surface Modification. Journal of Physical Chemistry B, 2005, 109, 20485-20492.	2.6	13
122	Metalâ€“Ligand Complexâ€Induced Ultrafast Chargeâ€Carrier Relaxation and Chargeâ€Transfer Dynamics in CdX (X=S, Se, Te) Quantum Dots Sensitized with Nitrocatechol. Chemistry - A European Journal, 2017, 23, 10590-10596.	3.3	13
123	Ultrafast Dynamics and Excited State Deactivation of [Ru(bpy)2Sq]+and Its Derivatives. Journal of Physical Chemistry B, 2006, 110, 10197-10203.	2.6	12
124	Interfacial Electron Transfer Dynamics in Quinizarin Sensitized ZnS Nanoparticles: Monitoring Charge Transfer Emission. Langmuir, 2009, 25, 3168-3172.	3.5	12
125	Competitive binding of Ba²⁺and Sr²⁺ to 18â€Crownâ€6 in a Receptor with a 1â€Methoxyanthraquinone Analogue as the Other Binding Site. European Journal of Inorganic Chemistry, 2011, 2011, 4680-4690.	2.0	12
126	Demonstrating the role of anchoring functionality in interfacial electron transfer dynamics in the newly synthesized BODIPYâ€“TiO₂ nanostructure composite. New Journal of Chemistry, 2017, 41, 5215-5224.	2.8	12

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127	Hydrogen bond assisted photoinduced intramolecular electron transfer and proton coupled electron transfer in an ultrafast time domain using a ruthenium-anthraquinone dyadâ€. Photochemical and Photobiological Sciences, 2019, 18, 2430-2441.	2.9	12
128	Fineâ€Tuning Plasmonâ€Molecule Interactions in Goldâ€BODIPY Nanocomposites: The Role of Chemical Structure and Noncovalent Interactions. ChemPlusChem, 2021, 86, 87-94.	2.8	12
129	Ultrafast Intermolecular Electron Transfer Dynamics:Â Perylene in Electron-Accepting Micellar Medium. Journal of Physical Chemistry B, 2005, 109, 4014-4023.	2.6	11
130	Surfaceâ€Stateâ€Mediated Chargeâ€Transfer Dynamics in CdTe/CdSe Coreâ€“Shell Quantum Dots. ChemPhysChem, 2011, 12, 1729-1735.	2.1	11
131	Proton-Coupled Electron Transfer in a Hydrogen-Bonded Charge-Transfer Complex. Journal of Physical Chemistry B, 2016, 120, 10780-10785.	2.6	11
132	Protonâ€Coupled Electronâ€Transfer Processes in Ultrafast Time Domain: Evidence for Effects of Hydrogenâ€Bond Stabilization on Photoinduced Electron Transfer. Chemistry - A European Journal, 2017, 23, 3455-3465.	3.3	11
133	Hot Charge Carriers in Quantum Dots: Generation, Relaxation, Extraction, and Applications. ChemNanoMat, 2019, 5, 985-999.	2.8	11
134	Ultrafast Relaxation Dynamics of the Excited States of Michler's Thione. Journal of Physical Chemistry A, 2006, 110, 12103-12112.	2.5	10
135	Employing a Photosynthetic Antenna Complex to Interfacial Electron Transfer on ZnO Quantum Dot. Journal of Physical Chemistry Letters, 2011, 2, 858-862.	4.6	10
136	Tuning Hole and Electron Transfer from Photoexcited CdSe Quantum Dots to Phenol Derivatives: Effect of Electronâ€Donating and â€Withdrawing Moieties. Chemistry - A European Journal, 2017, 23, 7306-7314.	3.3	10
137	Biexciton Dissociation Dynamics in Nanohybrid Auâ€“CuInS₂ Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 28497-28505.	3.1	10
138	Long-range light-modulated charge transport across the molecular heterostructure doped protein biopolymers. Chemical Science, 2021, 12, 8731-8739.	7.4	10
139	Unravelling the Underlying Hot Carrier Transfer and Relaxation Pathways in Type-1 CsPbBr₃â€“PbS System. Journal of Physical Chemistry C, 2021, 125, 10516-10525.	3.1	10
140	Determination of Back Electron Transfer Rate from the Surface States of Quinizarin-Sensitized ZrO2Nanoparticles by Monitoring Charge Transfer Emission. Langmuir, 2004, 20, 7342-7345.	3.5	9
141	Ultrafast Relaxation Dynamics of the Excited States of 1â€Aminoâ€and 1â€(N,Nâ€Dimethylamino)â€fluorenâ€9â€ones. ChemPhysChem, 2009, 10, 2979-2994.	2.1	9
142	An Insight of Molecular Twisting of Coumarin Dyes. ChemistrySelect, 2020, 5, 9461-9476.	1.5	9
143	Ultrafast Plasmon Dynamics in Near-Infrared Active Non-stoichiometric Cu_{2â€“x}Se Nanocrystals and Effect of Chemical Interface Damping. Journal of Physical Chemistry C, 2021, 125, 11468-11477.	3.1	9
144	Solution-processed Cd-substituted CZTS nanocrystals for sensitized liquid junction solar cells. Journal of Alloys and Compounds, 2022, 890, 161575.	5.5	9

#	Article	IF	Citations
145	Enhanced Charge Carrier Separation and Improved Biexciton Yield at the pâ€“n Junction of SnSe/CdSe Heterostructures: A Detailed Electrochemical and Ultrafast Spectroscopic Investigation. Journal of Physical Chemistry Letters, 2021, 12, 10958-10968.	4.6	9
146	Size Quantization Effects on Interfacial Electron Transfer Dynamics in Ru(II)â€“Polypyridyl Complex Sensitized ZnO QDs. Journal of Physical Chemistry C, 2014, 118, 28898-28905.	3.1	8
147	Restriction of Molecular Twisting on a Gold Nanoparticle Surface. Chemistry - A European Journal, 2015, 21, 5704-5708.	3.3	8
148	Elucidating the Electronic Cross-Talk Dynamics across the Heterointerface of Janus CdSe/PbSe Nanocrystals. Journal of Physical Chemistry C, 2016, 120, 29054-29061.	3.1	8
149	Temperature-Dependent Trap-Assisted Ultrafast Carrier Dynamics in Amorphous and Crystalline <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>In</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Se</mml:mi><mml:mn Thin Films. Physical Review Applied, 2020, 14, .	3.8	8
150	CdSâ€“CNTâ€“CoPi Heterostructures for Simultaneous Exciton Separation: Ultrafast and Photoelectrochemical Studies. Journal of Physical Chemistry C, 2021, 125, 8684-8695.	3.1	8
151	Defect-Interceded Cascading Energy Transfer and Underlying Charge Transfer in Europium-Doped CsPbCl₃ Nanocrystals. Journal of Physical Chemistry Letters, 2022, 13, 83-90.	4.6	8
152	Unravelling the Surface-State Assisted Ultrafast Charge Transfer Dynamics of Graphene Quantum Dot-Based Nanohybrids via Transient Absorption Spectroscopy. Journal of Physical Chemistry C, 2022, 126, 11182-11192.	3.1	8
153	Impact of FRET between Molecular Aggregates and Quantum Dots. Chemistry - an Asian Journal, 2019, 14, 597-605.	3.3	7
154	Spectroscopy and Femtosecond Dynamics of Water Soluble Type I CdSe/ZnS Coreâ€“Shell Quantum Dot. Science of Advanced Materials, 2013, 5, 1354-1363.	0.7	7
155	Revealing the electronic structure, heterojunction band offset and alignment of Cu2ZnGeSe4: a combined experimental and computational study towards photovoltaic applications. Physical Chemistry Chemical Physics, 2021, 23, 9553-9560.	2.8	6
156	Unraveling the Carrier Dynamics and Photocatalytic Pathway in Carbon Dots and Pollutants of Wastewater System. Journal of Physical Chemistry C, 0, , .	3.1	6
157	Insight into morphology dependent charge carrier dynamics in ZnSeâ€“CdS nanoheterostructures. Physical Chemistry Chemical Physics, 2022, 24, 8519-8528.	2.8	6
158	Goldâ€“BODIPY Nanoparticles with Luminescence and Photosensitization Properties for Photodynamic Therapy and Cell Imaging. ACS Applied Nano Materials, 2022, 5, 6532-6542.	5.0	6
159	Interfacial charge recombination of Os(ii)â€“polypyridylâ€“resorcinol complex on oleic acid capped TiO2 surface: what determines the dynamics?. New Journal of Chemistry, 2013, 37, 3100.	2.8	5
160	Solar Conversion Efficiency Performance of a High Temperature Alloy over a Low Temperature One: Comprehending Interfaces through Excitonics Study. Journal of Physical Chemistry C, 2018, 122, 11312-11321.	3.1	5
161	Strategies for extending charge separation in colloidal nanostructured quantum dot materials. Physical Chemistry Chemical Physics, 2019, 21, 23283-23300.	2.8	5
162	Plasmon Mediated Electron Transfer and Temperature Dependent Electronâ€Phonon Scattering in Gold Nanoparticles Embedded in Dielectric Films. ChemPhysChem, 2022, 23, .	2.1	5

#	Article	IF	Citations
163	Carrier relaxation dynamics in type-II ZnO/CdSe quantum dot heterostructures. Physical Chemistry Chemical Physics, 2017, 19, 24896-24902.	2.8	4
164	Disentangling the Electron and Hole Dynamics in Janus CdSe/PbSe Nanocrystals through Variable Pump Transient Absorption Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 29075-29079.	3.1	4
165	Charge carrier dynamics in CdTe/ZnTe core/shell nanocrystals for photovoltaic applications $$^{S }$$ Â§. Journal of Chemical Sciences, 2018, 130, 1.	1.5	4
166	S2 and mixed aggregate state emission of thiophene-BODIPY. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 368, 147-152.	3.9	4
167	Femtosecond IR Study of Ru(II)(SCN)2(dcbpy)2 Sensitized Nanocrystalline TiO2 Thin Films: Ultrafast Electron Injection and Relaxation Dynamics. Springer Series in Chemical Physics, 1998, , 639-641.	0.2	4
168	Effect of Molecular Coupling on Ultrafast Electronâ€Transfer and Chargeâ€Recombination Dynamics in a Wideâ€Gap ZnS Nanoaggregate Sensitized by Triphenyl Methane Dyes. ChemPhysChem, 2016, 17, 724-730.	2.1	3
169	Impact of one step alloying on the carrier relaxation and charge separation dynamics of CdxZn1-xSe graded nanocrystals. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 388, 112131.	3.9	3
170	Proton-Coupled Electron Transfer for Photoinduced Generation of Two-Electron Reduced Species of Quinone. Journal of Physical Chemistry B, 2020, 124, 11165-11174.	2.6	3
171	Effect of Surface Ligand on Chemical Interface Damping in Nonstoichiometric Cu2â€“xS Semiconductor Nanocrystals: A Direct Correlation between Ultrafast Carrier Dynamics and Photoconductivity. Journal of Physical Chemistry C, 2021, 125, 23250-23258.	3.1	3
172	Chemical Interface Damping in Nonstoichiometric Semiconductor Plasmonic Nanocrystals: An Effect of the Surrounding Environment. Langmuir, 2022, 38, 5339-5350.	3.5	3
173	Improving the Powerâ€Conversion Efficiency through Alloying in Common Anion CdZnX (X=S, Se) Nanocrystal Sensitized Solar Cells. ChemPhysChem, 2019, 20, 2662-2667.	2.1	2
174	Ultrafast Charge Separation Dynamics of Twisted Intramolecular Charge Transfer State (TICT) in Coumarin Dye Sensitized TiO2Film: A New Route to Achieve Higher Efficient Dye-Sensitized Solar Cell. EPJ Web of Conferences, 2013, 41, 08001.	0.3	1
175	Probing the charge transfer mechanisms in type-II Cs₂AgBiBr₆-CdSe composite system: ultrafast insights. Nanotechnology, 2022, 33, 485406.	2.6	1
176	Ultrafast interfacial charge transfer dynamics in dye-sensitized and quantum dot solar cell. , 2013, , .		0
177	Hot electron migration from gold nanoparticle to an organic molecule enhances luminescence and photosensitization properties of a pH activatable plasmon-molecule coupled nanocomposite. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 432, 114067.	3.9	0