Prashant V Kamat

List of Publications by Citations

Source: https://exaly.com/author-pdf/1300176/prashant-v-kamat-publications-by-citations.pdf
Version: 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

384 papers	69,027 citations	133 h-index	259 g-index
567 ext. papers	73,237 ext. citations	10.2 avg, IF	8.82 L-index

#	Paper	IF	Citations
384	TiO2-graphene nanocomposites. UV-assisted photocatalytic reduction of graphene oxide. *ACS Nano* , **2008**, 2, 1487-91	16.7	2230
383	Quantum Dot Solar Cells. Semiconductor Nanocrystals as Light Harvesters *Journal of Physical Chemistry C*, **2008**, 112, 18737-18753	3.8	2168
382	Meeting the Clean Energy Demand: Nanostructure Architectures for Solar Energy Conversion. *Journal of Physical Chemistry C*, **2007**, 111, 2834-2860	3.8	1928
381	Catalysis with TiO2/gold nanocomposites. Effect of metal particle size on the Fermi level equilibration. *Journal of the American Chemical Society*, **2004**, 126, 4943-50	16.4	1762
380	Photophysical, Photochemical and Photocatalytic Aspects of Metal Nanoparticles. *Journal of Physical Chemistry B*, **2002**, 106, 7729-7744	3.4	1715
379	Quantum dot solar cells. harvesting light energy with CdSe nanocrystals molecularly linked to mesoscopic TiO2 films. *Journal of the American Chemical Society*, **2006**, 128, 2385-93	16.4	1621
378	Photochemistry on nonreactive and reactive (semiconductor) surfaces. *Chemical Reviews*, **1993**, 93, 267-300	50.1	1496
377	Quantum dot solar cells. Tuning photoresponse through size and shape control of CdSe-TiO2 architecture. *Journal of the American Chemical Society*, **2008**, 130, 4007-15	16.4	1463
376	An inorganic hole conductor for organo-lead halide perovskite solar cells. Improved hole conductivity with copper iodide. *Journal of the American Chemical Society*, **2014**, 136, 758-64	16.4	1048
375	Intriguing Optoelectronic Properties of Metal Halide Perovskites. *Chemical Reviews*, **2016**, 116, 12956-13008	50.3	987
374	Transformation of the excited state and photovoltaic efficiency of CH3NH3PbI3 perovskite upon controlled exposure to humidified air. *Journal of the American Chemical Society*, **2015**, 137, 1530-8	16.4	972
373	Charge separation and catalytic activity of Ag@TiO2 core-shell composite clusters under UV-irradiation. *Journal of the American Chemical Society*, **2005**, 127, 3928-34	16.4	968
372	Anchoring semiconductor and metal nanoparticles on a two-dimensional catalyst mat. Storing and shuttling electrons with reduced graphene oxide. *Nano Letters*, **2010**, 10, 577-83	11.5	937
371	Graphene-Based Nanoarchitectures. Anchoring Semiconductor and Metal Nanoparticles on a Two-Dimensional Carbon Support. *Journal of Physical Chemistry Letters*, **2010**, 1, 520-527	6.4	895
370	Charge Transfer on the Nanoscale: Current Status. *Journal of Physical Chemistry B*, **2003**, 107, 6668-6697	3.4	895
369	Electrocatalytically Active Graphene-Platinum Nanocomposites. Role of 2-D Carbon Support in PEM Fuel Cells. *Journal of Physical Chemistry C*, **2009**, 113, 7990-7995	3.8	846
368	Mn-doped quantum dot sensitized solar cells: a strategy to boost efficiency over 5%. *Journal of the American Chemical Society*, **2012**, 134, 2508-11	16.4	824

367	Semiconductor–Metal Composite Nanostructures. To What Extent Do Metal Nanoparticles Improve the Photocatalytic Activity of TiO2 Films?. *Journal of Physical Chemistry B*, **2001**, 105, 11439-11446	3.4	824
366	Decorating Graphene Sheets with Gold Nanoparticles. *Journal of Physical Chemistry C*, **2008**, 112, 5263-5266	4.8	808
365	Band filling with free charge carriers in organometal halide perovskites. *Nature Photonics*, **2014**, 8, 737-743	33.9	772
364	Size-dependent electron injection from excited CdSe quantum dots into TiO2 nanoparticles. *Journal of the American Chemical Society*, **2007**, 129, 4136-7	16.4	767
363	Charge Distribution between UV-Irradiated TiO2and Gold Nanoparticles:Determination of Shift in the Fermi Level. *Nano Letters*, **2003**, 3, 353-358	11.5	733
362	Photosensitization of TiO2 Nanostructures with CdS Quantum Dots: Particulate versus Tubular Support Architectures. *Advanced Functional Materials*, **2009**, 19, 805-811	15.6	729
361	Beyond photovoltaics: semiconductor nanoarchitectures for liquid-junction solar cells. *Chemical Reviews*, **2010**, 110, 6664-88	68.1	676
360	Quantum Dot Solar Cells. The Next Big Thing in Photovoltaics. *Journal of Physical Chemistry Letters*, **2013**, 4, 908-18	6.4	665
359	Chromophore-functionalized gold nanoparticles. *Accounts of Chemical Research*, **2003**, 36, 888-98	24.3	608
358	What Factors Control the Size and Shape of Silver Nanoparticles in the Citrate Ion Reduction Method?. *Journal of Physical Chemistry B*, **2004**, 108, 945-951	3.4	606
357	Single wall carbon nanotube scaffolds for photoelectrochemical solar cells. Capture and transport of photogenerated electrons. *Nano Letters*, **2007**, 7, 676-80	11.5	563
356	Graphene-Based Nanoassemblies for Energy Conversion. *Journal of Physical Chemistry Letters*, **2011**, 2, 242-251	6.4	553
355	Picosecond Dynamics of Silver Nanoclusters. Photoejection of Electrons and Fragmentation. *Journal of Physical Chemistry B*, **1998**, 102, 3123-3128	3.4	539
354	Photoinduced electron transfer from semiconductor quantum dots to metal oxide nanoparticles. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 29-34	11.5	537
353	Graphene-semiconductor nanocomposites: excited-state interactions between ZnO nanoparticles and graphene oxide. *Langmuir*, **2009**, 25, 13869-73	4	536
352	Quantum dot sensitized solar cells. A tale of two semiconductor nanocrystals: CdSe and CdTe. *ACS Nano*, **2009**, 3, 1467-76	16.7	507
351	Making and Breaking of Lead Halide Perovskites. *Accounts of Chemical Research*, **2016**, 49, 330-8	24.3	491
350	Enhanced Rates of Photocatalytic Degradation of an Azo Dye Using SnO2/TiO2 Coupled Semiconductor Thin Films. *Environmental Science & Technology*, **1995**, 29, 841-5	10.3	483

349	Environmental Photochemistry on Semiconductor Surfaces: Photosensitized Degradation of a Textile Azo Dye, Acid Orange 7, on TiO2 Particles Using Visible Light. *Environmental Science & Technology*, **1996**, 30, 1660-1666	10.3	469
348	Green Emission to Probe Photoinduced Charging Events in ZnO–Au Nanoparticles. Charge Distribution and Fermi-Level Equilibration. *Journal of Physical Chemistry B*, **2003**, 107, 7479-7485	3.4	440
347	Photovoltaic cells using composite nanoclusters of porphyrins and fullerenes with gold nanoparticles. *Journal of the American Chemical Society*, **2005**, 127, 1216-28	16.4	429
346	Electrochemically assisted photocatalysis: titania particulate film electrodes for photocatalytic degradation of 4-chlorophenol. *The Journal of Physical Chemistry*, **1993**, 97, 9040-9044		423
345	CuS Reduced Graphene Oxide Composite for High-Efficiency Quantum Dot Solar Cells. Overcoming the Redox Limitations of S/S at the Counter Electrode. *Journal of Physical Chemistry Letters*, **2011**, 2, 2453-2460	6.4	418
344	Semiconductor−Metal Nanocomposites. Photoinduced Fusion and Photocatalysis of Gold-Capped TiO2 (TiO2/Gold) Nanoparticles. *Journal of Physical Chemistry B*, **2001**, 105, 960-966	3.4	418
343	Manipulation of Charge Transfer Across Semiconductor Interface. A Criterion That Cannot Be Ignored in Photocatalyst Design. *Journal of Physical Chemistry Letters*, **2012**, 3, 663-72	6.4	414
342	Boosting the efficiency of quantum dot sensitized solar cells through modulation of interfacial charge transfer. *Accounts of Chemical Research*, **2012**, 45, 1906-15	24.3	401
341	Improving the Photoelectrochemical Performance of Nanostructured TiO2 Films by Adsorption of Gold Nanoparticles. *Journal of Physical Chemistry B*, **2000**, 104, 10851-10857	3.4	399
340	Photophysical and photochemical aspects of coupled semiconductors: charge-transfer processes in colloidal cadmium sulfide-titania and cadmium sulfide-silver(I) iodide systems. *The Journal of Physical Chemistry*, **1990**, 94, 6435-6440		395
339	Uniaxial Plasmon Coupling through Longitudinal Self-Assembly of Gold Nanorods. *Journal of Physical Chemistry B*, **2004**, 108, 13066-13068	3.4	385
338	Tailored TiO2-SrTiO3 heterostructure nanotube arrays for improved photoelectrochemical performance. *ACS Nano*, **2010**, 4, 387-95	16.7	371
337	Nanostructured Semiconductor Films for Photocatalysis. Photoelectrochemical Behavior of SnO2/TiO2Composite Systems and Its Role in Photocatalytic Degradation of a Textile Azo Dye. *Chemistry of Materials*, **1996**, 8, 2180-2187	9.6	352
336	To What Extent Do Graphene Scaffolds Improve the Photovoltaic and Photocatalytic Response of TiO2 Nanostructured Films?. *Journal of Physical Chemistry Letters*, **2010**, 1, 2222-2227	6.4	351
335	Electron storage in single wall carbon nanotubes. Fermi level equilibration in semiconductor-SWCNT suspensions. *ACS Nano*, **2007**, 1, 13-21	16.7	350
334	Know thy nano neighbor. Plasmonic versus electron charging effects of metal nanoparticles in dye-sensitized solar cells. *ACS Nano*, **2012**, 6, 4418-27	16.7	334
333	Controlling Dye (Merocyanine-540) Aggregation on Nanostructured TiO2 Films. An Organized Assembly Approach for Enhancing the Efficiency of Photosensitization. *Journal of Physical Chemistry B*, **1999**, 103, 4693-4700	3.4	324
332	Capture, store, and discharge. Shuttling photogenerated electrons across TiO2-silver interface. *ACS Nano*, **2011**, 5, 7369-76	16.7	314

331	Solar Cells by Design: Photoelectrochemistry of TiO2 Nanorod Arrays Decorated with CdSe. *Advanced Functional Materials*, **2010**, 20, 1970-1976	15.6	313
330	Dual nature of the excited state in organic–inorganic lead halide perovskites. *Energy and Environmental Science*, **2015**, 8, 208-215	35.4	312
329	Light-Induced Anion Phase Segregation in Mixed Halide Perovskites. *ACS Energy Letters*, **2018**, 3, 204-213	20.1	307
328	Influence of Metal/Metal Ion Concentration on the Photocatalytic Activity of TiO2–Au Composite Nanoparticles. *Langmuir*, **2003**, 19, 469-474	4	304
327	Carbon Nanostructures in Portable Fuel Cells: Single-Walled Carbon Nanotube Electrodes for Methanol Oxidation and Oxygen Reduction. *Journal of Physical Chemistry B*, **2004**, 108, 19960-19966	3.4	302
326	Photoelectrochemical behavior of thin cadmium selenide and coupled titania/cadmium selenide semiconductor films. *The Journal of Physical Chemistry*, **1993**, 97, 10769-10773		298
325	Fortification of CdSe quantum dots with graphene oxide. Excited state interactions and light energy conversion. *Journal of the American Chemical Society*, **2012**, 134, 7109-16	16.4	279
324	Transformation of Sintered CsPbBr3 Nanocrystals to Cubic CsPbI3 and Gradient CsPbBrxI3-x through Halide Exchange. *Journal of the American Chemical Society*, **2016**, 138, 8603-11	16.4	269
323	Understanding the role of the sulfide redox couple (S2-/S(n)2-) in quantum dot-sensitized solar cells. *Journal of the American Chemical Society*, **2011**, 133, 9607-15	16.4	269
322	Metal-cluster-sensitized solar cells. A new class of thiolated gold sensitizers delivering efficiency greater than 2%. *Journal of the American Chemical Society*, **2013**, 135, 8822-5	16.4	267
321	Charge-transfer processes in coupled semiconductor systems. Photochemistry and photoelectrochemistry of the colloidal cadmium sulfide-zinc oxide system. *The Journal of Physical Chemistry*, **1992**, 96, 6834-6839		267
320	Rationalizing the light-induced phase separation of mixed halide organic-inorganic perovskites. *Nature Communications*, **2017**, 8, 200	17.4	264
319	Recent advances in quantum dot surface chemistry. *ACS Applied Materials & Interfaces*, **2014**, 6, 3041-57	9.5	263
318	Photoinduced electron storage and surface plasmon modulation in Ag@TiO2 clusters. *Langmuir*, **2004**, 20, 5645-7	4	259
317	Preparation and Photoelectrochemical Characterization of Thin SnO2 Nanocrystalline Semiconductor Films and Their Sensitization with Bis(2,2'-bipyridine)(2,2'-bipyridine-4,4'-dicarboxylic acid)ruthenium(II) Complex. *The Journal of Physical Chemistry*, **1994**, 98, 4133-4140		253
316	Tracking Iodide and Bromide Ion Segregation in Mixed Halide Lead Perovskites during Photoirradiation. *ACS Energy Letters*, **2016**, 1, 290-296	20.1	251
315	Graphitic design: prospects of graphene-based nanocomposites for solar energy conversion, storage, and sensing. *Accounts of Chemical Research*, **2013**, 46, 2235-43	24.3	248
314	Capped Semiconductor Colloids. Synthesis and Photoelectrochemical Behavior of TiO2-Capped SnO2 Nanocrystallites. *The Journal of Physical Chemistry*, **1995**, 99, 9182-9188		248

313	Best Practices in Perovskite Solar Cell Efficiency Measurements. Avoiding the Error of Making Bad Cells Look Good. *Journal of Physical Chemistry Letters*, **2015**, 6, 852-7	6.4	245
312	A Sense and Shoot Approach for Photocatalytic Degradation of Organic Contaminants in Water. *Journal of Physical Chemistry B*, **2002**, 106, 788-794	3.4	240
311	Tandem-layered quantum dot solar cells: tuning the photovoltaic response with luminescent ternary cadmium chalcogenides. *Journal of the American Chemical Society*, **2013**, 135, 877-85	16.4	239
310	Boosting fuel cell performance with a semiconductor photocatalyst: TiO2/Pt-Ru hybrid catalyst for methanol oxidation. *Journal of Physical Chemistry B*, **2005**, 109, 11851-7	3.4	238
309	Electrochemically Assisted Photocatalysis. 2. The Role of Oxygen and Reaction Intermediates in the Degradation of 4-Chlorophenol on Immobilized TiO2 Particulate Films. *The Journal of Physical Chemistry*, **1994**, 98, 6797-6803		238
308	Environmental Photochemistry on Semiconductor Surfaces. Visible Light Induced Degradation of a Textile Diazo Dye, Naphthol Blue Black, on TiO2 Nanoparticles. *The Journal of Physical Chemistry*, **1996**, 100, 8436-8442		235
307	Got TiO2 nanotubes? Lithium ion intercalation can boost their photoelectrochemical performance. *ACS Nano*, **2009**, 3, 3437-46	16.7	230
306	Quantum dot solar cells. Electrophoretic deposition of CdSe-C60 composite films and capture of photogenerated electrons with nC60 cluster shell. *Journal of the American Chemical Society*, **2008**, 130, 8890-1	16.4	226
305	Spatial and temporal imaging of long-range charge transport in perovskite thin films by ultrafast microscopy. *Nature Communications*, **2015**, 6, 7471	17.4	225
304	Radiolytic and TiO2-Assisted Photocatalytic Degradation of 4-Chlorophenol. A Comparative Study. *The Journal of Physical Chemistry*, **1994**, 98, 6343-6351		225
303	Interparticle electron transfer between size-quantized CdS and TiO2 semiconductor nanoclusters. *Physical Chemistry Chemical Physics*, **2002**, 4, 198-203	3.6	222
302	State of the Art and Prospects for Halide Perovskite Nanocrystals. *ACS Nano*, **2021**, 15, 10775-10981	16.7	222
301	Single-Walled Carbon Nanotube Scaffolds for Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2008**, 112, 4776-4782	3.8	219
300	Photophysics and photochemistry of quantized zinc oxide colloids. *The Journal of Physical Chemistry* , **1992**, 96, 6829-6834		219
299	Glutathione-capped gold nanoclusters as photosensitizers. Visible light-induced hydrogen generation in neutral water. *Journal of the American Chemical Society*, **2014**, 136, 6075-82	16.4	218
298	Self-assembled linear bundles of single wall carbon nanotubes and their alignment and deposition as a film in a dc field. *Journal of the American Chemical Society*, **2004**, 126, 10757-62	16.4	216
297	All solution-processed lead halide perovskite-BiVO4 tandem assembly for photolytic solar fuels production. *Journal of the American Chemical Society*, **2015**, 137, 974-81	16.4	214
296	Shift Happens. How Halide Ion Defects Influence Photoinduced Segregation in Mixed Halide Perovskites. *ACS Energy Letters*, **2017**, 2, 1507-1514	20.1	209

295	Making Gold Nanoparticles Glow: Enhanced Emission from a Surface-Bound Fluoroprobe. *Journal of the American Chemical Society*, **2000**, 122, 2655-2656	16.4	209
294	Tuning the emission of CdSe quantum dots by controlled trap enhancement. *Langmuir*, **2010**, 26, 11272-6	4	208
293	CdSe quantum dot sensitized solar cells. Shuttling electrons through stacked carbon nanocups. *Journal of the American Chemical Society*, **2009**, 131, 11124-31	16.4	205
292	Photoinduced Charge Transfer between CdSe Quantum Dots and p-Phenylenediamine. *Journal of Physical Chemistry B*, **2003**, 107, 10088-10093	3.4	203
291	Size-dependent excited state behavior of glutathione-capped gold clusters and their light-harvesting capacity. *Journal of the American Chemical Society*, **2014**, 136, 11093-9	16.4	202
290	CuInS2-Sensitized Quantum Dot Solar Cell. Electrophoretic Deposition, Excited-State Dynamics, and Photovoltaic Performance. *Journal of Physical Chemistry Letters*, **2013**, 4, 722-9	6.4	199
289	Size-Dependent Photovoltaic Performance of CuInS2 Quantum Dot-Sensitized Solar Cells. *Chemistry of Materials*, **2014**, 26, 7221-7228	9.6	193
288	Sonolytic Design of Graphene–Au Nanocomposites. Simultaneous and Sequential Reduction of Graphene Oxide and Au(III). *Journal of Physical Chemistry Letters*, **2010**, 1, 1987-1993	6.4	184
287	Visible Laser Induced Fusion and Fragmentation of Thionicotinamide-Capped Gold Nanoparticles. *Journal of Physical Chemistry B*, **1999**, 103, 2589-2591	3.4	180
286	Dye Capped Semiconductor Nanoclusters. Role of Back Electron Transfer in the Photosensitization of SnO2 Nanocrystallites with Cresyl Violet Aggregates. *Journal of Physical Chemistry B*, **1997**, 101, 2583-2590	3.4	178
285	Reduced graphene oxide and porphyrin. An interactive affair in 2-D. *ACS Nano*, **2010**, 4, 6697-706	16.7	177
284	Photoinduced Charge Separation in a Fluorophore–Gold Nanoassembly. *Journal of Physical Chemistry B*, **2002**, 106, 18-21	3.4	175
283	Dynamics of Photogenerated Charge Carriers in WO3/BiVO4 Heterojunction Photoanodes. *Journal of Physical Chemistry C*, **2015**, 119, 20792-20800	3.8	174
282	Rate Constants for Charge Injection from Excited Sensitizer into SnO2, ZnO, and TiO2 Semiconductor Nanocrystallites. *The Journal of Physical Chemistry*, **1995**, 99, 12902-12906		174
281	Organized assemblies of single wall carbon nanotubes and porphyrin for photochemical solar cells: charge injection from excited porphyrin into single-walled carbon nanotubes. *Journal of Physical Chemistry B*, **2006**, 110, 25477-84	3.4	172
280	Interparticle Electron Transfer in Metal/Semiconductor Composites. Picosecond Dynamics of CdS-Capped Gold Nanoclusters. *Journal of Physical Chemistry B*, **1997**, 101, 7675-7679	3.4	171
279	Photoinduced Charge Transfer between Carbon and Semiconductor Clusters. One-Electron Reduction of C60 in Colloidal TiO2 Semiconductor Suspensions. *The Journal of Physical Chemistry*, **1994**, 98, 9137-9142		170
278	Photoelectrochemistry in particulate systems. 4. Photosensitization of a titanium dioxide semiconductor with a chlorophyll analog. *The Journal of Physical Chemistry*, **1986**, 90, 1389-1394		170

277	Enhancement of light-energy conversion efficiency by multi-porphyrin arrays of porphyrin-peptide oligomers with fullerene clusters. *Journal of Physical Chemistry B*, **2005**, 109, 19-23	3.4	168
276	Fullerene-Functionalized Gold Nanoparticles. A Self-Assembled Photoactive Antenna-Metal Nanocore Assembly. *Nano Letters*, **2002**, 2, 29-35	11.5	167
275	CdSe quantum dot-fullerene hybrid nanocomposite for solar energy conversion: electron transfer and photoelectrochemistry. *ACS Nano*, **2011**, 5, 9421-7	16.7	166
274	Tracking the Adsorption and Electron Injection Rates of CdSe Quantum Dots on TiO2: Linked versus Direct Attachment. *Journal of Physical Chemistry C*, **2011**, 115, 13511-13519	3.8	159
273	Quaternary self-organization of porphyrin and fullerene units by clusterization with gold nanoparticles on SnO2 electrodes for organic solar cells. *Journal of the American Chemical Society*, **2003**, 125, 14962-3	16.4	158
272	Highly dispersed Pt catalysts on single-walled carbon nanotubes and their role in methanol oxidation. *Journal of Physical Chemistry B*, **2006**, 110, 16185-8	3.4	157
271	Photoelectrochemistry in particulate systems. 9. Photosensitized reduction in a colloidal titania system using anthracene-9-carboxylate as the sensitizer. *The Journal of Physical Chemistry*, **1989**, 93, 859-864		157
270	Photosensitization of Nanocrystalline Semiconductor Films. Modulation of Electron Transfer between Excited Ruthenium Complex and SnO2 Nanocrystallites with an Externally Applied Bias. *The Journal of Physical Chemistry*, **1996**, 100, 4900-4908		156
269	Surface Binding Properties of Tetraoctylammonium Bromide-Capped Gold Nanoparticles. *Langmuir*, **2002**, 18, 3722-3727	4	155
268	Evolution of Chemical Composition, Morphology, and Photovoltaic Efficiency of CH3NH3PbI3 Perovskite under Ambient Conditions. *Chemistry of Materials*, **2016**, 28, 303-311	9.6	152
267	Organic solar cells. Supramolecular composites of porphyrins and fullerenes organized by polypeptide structures as light harvesters. *Journal of Materials Chemistry*, **2007**, 17, 4160		150
266	C60 Cluster as an Electron Shuttle in a Ru(II)-Polypyridyl Sensitizer-Based Photochemical Solar Cell. *Journal of Physical Chemistry B*, **2004**, 108, 5166-5170	3.4	148
265	Supramolecular Photovoltaic Cells Based on Composite Molecular Nanoclusters: Dendritic Porphyrin and C60, Porphyrin Dimer and C60, and Porphyrin□C60 Dyad. *Journal of Physical Chemistry B*, **2004**, 108, 12865-12872	3.4	148
264	Photocatalysis with CdSe nanoparticles in confined media: mapping charge transfer events in the subpicosecond to second timescales. *ACS Nano*, **2009**, 3, 682-90	16.7	147
263	Photoelectrochemistry of Composite Semiconductor Thin Films. Photosensitization of SnO2/CdS Coupled Nanocrystallites with a Ruthenium Polypyridyl Complex. *Journal of Physical Chemistry B*, **1997**, 101, 7480-7487	3.4	146
262	Single wall carbon nanotube supports for portable direct methanol fuel cells. *Journal of Physical Chemistry B*, **2006**, 110, 107-14	3.4	145
261	Single-Wall Carbon Nanotube Films for Photocurrent Generation. A Prompt Response to Visible-Light Irradiation. *Journal of Physical Chemistry B*, **2004**, 108, 17015-17018	3.4	144
260	Photoinduced transformations in semiconductor□metal nanocomposite assemblies. *Pure and Applied Chemistry*, **2002**, 74, 1693-1706	2.1	137

259	CsPbBr3 Solar Cells: Controlled Film Growth through Layer-by-Layer Quantum Dot Deposition. *Chemistry of Materials*, **2017**, 29, 9767-9774	9.6	136
258	Photoelectrochemical Behavior of Bi2S3 Nanoclusters and Nanostructured Thin Films. *Langmuir*, **1998**, 14, 3236-3241	4	136
257	Light Energy Conversion Using Mixed Molecular Nanoclusters. Porphyrin and C60 Cluster Films for Efficient Photocurrent Generation. *Journal of Physical Chemistry B*, **2003**, 107, 12105-12112	3.4	136
256	Dynamic Burstein-Moss shift in semiconductor colloids. *The Journal of Physical Chemistry*, **1989**, 93, 2873-2875		136
255	Photosensitization of Nanocrystalline ZnO Films by Bis(2,2Ebipyridine)(2,2Ebipyridine-4,4Edicarboxylic acid)ruthenium(II). *Langmuir*, **1997**, 13, 2398-2403	4	134
254	Nanoparticles in advanced oxidation processes. *Current Opinion in Colloid and Interface Science*, **2002**, 7, 282-287	7.6	134
253	Photoelectrochemistry in particulate systems. 6. Electron-transfer reactions of small cadmium sulfide colloids in acetonitrile. *The Journal of Physical Chemistry*, **1987**, 91, 396-401		134
252	Spatially Non-uniform Trap State Densities in Solution-Processed Hybrid Perovskite Thin Films. *Journal of Physical Chemistry Letters*, **2016**, 7, 715-21	6.4	133
251	Photochemistry of Ru(bpy)2(dcbpy)2+ on Al2O3 and TiO2 Surfaces. An Insight into the Mechanism of Photosensitization. *The Journal of Physical Chemistry*, **1995**, 99, 10883-10889		133
250	Is Graphene a Stable Platform for Photocatalysis? Mineralization of Reduced Graphene Oxide With UV-Irradiated TiO2 Nanoparticles. *Chemistry of Materials*, **2014**, 26, 4662-4668	9.6	131
249	Nanoscience opportunities in environmental remediation. *Comptes Rendus Chimie*, **2003**, 6, 999-1007	2.7	131
248	Quantum Dot Surface Chemistry: Ligand Effects and Electron Transfer Reactions. *Journal of Physical Chemistry C*, **2013**, 117, 14418-14426	3.8	128
247	Supersensitization of CdS quantum dots with a near-infrared organic dye: toward the design of panchromatic hybrid-sensitized solar cells. *ACS Nano*, **2011**, 5, 9238-45	16.7	126
246	Dye-Capped Semiconductor Nanoclusters. Excited State and Photosensitization Aspects of Rhodamine 6G H-Aggregates Bound to SiO2 and SnO2 Colloids. *The Journal of Physical Chemistry*, **1996**, 100, 11054-11061		126
245	Excited-State Behavior of Luminescent Glutathione-Protected Gold Clusters. *Journal of Physical Chemistry C*, **2014**, 118, 1370-1376	3.8	125
244	Photoinduced electron transfer between chlorophyll a and gold nanoparticles. *Journal of Physical Chemistry B*, **2005**, 109, 716-23	3.4	124
243	Electrochemical modulation of fluorophore emission on a nanostructured gold film. *Angewandte Chemie - International Edition*, **2002**, 41, 2764-7	16.4	123
242	Lead-Free Perovskite Solar Cells. *ACS Energy Letters*, **2017**, 2, 904-905	20.1	121

241	Exciton recombination dynamics in CdSe nanowires: bimolecular to three-carrier Auger kinetics. *Nano Letters*, **2006**, 6, 1344-9	11.5	121
240	Thiolated Gold Nanoclusters for Light Energy Conversion. *ACS Energy Letters*, **2018**, 3, 840-854	20.1	120
239	How Lead Halide Complex Chemistry Dictates the Composition of Mixed Halide Perovskites. *Journal of Physical Chemistry Letters*, **2016**, 7, 1368-73	6.4	120
238	Electron transfer cascade by organic/inorganic ternary composites of porphyrin, zinc oxide nanoparticles, and reduced graphene oxide on a tin oxide electrode that exhibits efficient photocurrent generation. *Journal of the American Chemical Society*, **2011**, 133, 7684-7	16.4	120
237	Photoelectrochemistry of Composite Semiconductor Thin Films. Photosensitization of the SnO2/TiO2 Coupled System with a Ruthenium Polypyridyl Complex. *Journal of Physical Chemistry B*, **1998**, 102, 10047-10056	3.4	120
236	Ligand Assisted Transformation of Cubic CsPbBr3 Nanocrystals into Two-Dimensional CsPb2Br5 Nanosheets. *Chemistry of Materials*, **2018**, 30, 74-78	9.6	119
235	Making graphene holey. Gold-nanoparticle-mediated hydroxyl radical attack on reduced graphene oxide. *ACS Nano*, **2013**, 7, 5546-57	16.7	118
234	Stacked-cup carbon nanotubes for photoelectrochemical solar cells. *Angewandte Chemie - International Edition*, **2006**, 45, 755-9	16.4	113
233	Au□CsPbBr3 Hybrid Architecture: Anchoring Gold Nanoparticles on Cubic Perovskite Nanocrystals. *ACS Energy Letters*, **2017**, 2, 88-93	20.1	112
232	Quantum dot solar cells: hole transfer as a limiting factor in boosting the photoconversion efficiency. *Langmuir*, **2014**, 30, 5716-25	4	112
231	Trap and transfer. two-step hole injection across the Sb2S3/CuSCN interface in solid-state solar cells. *ACS Nano*, **2013**, 7, 7967-74	16.7	112
230	A Victim of Halide Ion Segregation. How Light Soaking Affects Solar Cell Performance of Mixed Halide Lead Perovskites. *ACS Energy Letters*, **2017**, 2, 1860-1861	20.1	112
229	Synergy of combining sonolysis and photocatalysis in the degradation and mineralization of chlorinated aromatic compounds. *Environmental Science & Technology*, **2003**, 37, 1926-32	10.3	111
228	Reduced Graphene Oxide□Silver Nanoparticle Composite as an Active SERS Material. *Journal of Physical Chemistry C*, **2013**, 117, 4740-4747	3.8	109
227	Dye-Capped Gold Nanoclusters: Photoinduced Morphological Changes in Gold/Rhodamine 6G Nanoassemblies. *Journal of Physical Chemistry B*, **2000**, 104, 11103-11109	3.4	109
226	Role of Reduction in the Photocatalytic Degradation of TNT. *Environmental Science & Technology*, **1996**, 30, 2547-2555	10.3	108
225	Photocatalytic Degradation of Organic Contaminants: Halophenols and Related Model Compounds. *Heterogeneous Chemistry Reviews*, **1996**, 3, 77-104		107
224	Substrate driven photochemistry of CdSe quantum dot films: charge injection and irreversible transformations on oxide surfaces. *Journal of Physical Chemistry A*, **2009**, 113, 3765-72	2.8	106

223	Fuel Cell Geared in Reverse: Photocatalytic Hydrogen Production Using a TiO2/Nafion/Pt Membrane Assembly with No Applied Bias. *Journal of Physical Chemistry C*, **2009**, 113, 18946-18952	3.8	105
222	Photocatalytic events of CdSe quantum dots in confined media. Electrodic behavior of coupled platinum nanoparticles. *ACS Nano*, **2010**, 4, 7321-30	16.7	103
221	Metal□metal and metal□semiconductor composite nanoclusters. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2002**, 202, 269-279	5.1	102
220	Role of Iodide in Photoelectrochemical Solar Cells. Electron Transfer between Iodide Ions and Ruthenium Polypyridyl Complex Anchored on Nanocrystalline SiO2 and SnO2 Films. *Journal of Physical Chemistry B*, **1998**, 102, 4944-4951	3.4	101
219	Photosensitized Growth of Silver Nanoparticles under Visible Light Irradiation: A Mechanistic Investigation. *Chemistry of Materials*, **2005**, 17, 5404-5410	9.6	100
218	Multifaceted Excited State of CH3NH3PbI3. Charge Separation, Recombination, and Trapping. *Journal of Physical Chemistry Letters*, **2015**, 6, 2086-95	6.4	99
217	Origin of Catalytic Effect in the Reduction of CO2 at Nanostructured TiO2 Films. *ACS Catalysis*, **2014** , 4, 3249-3254	13.1	98
216	Modulation of electron injection in CdSe-TiO(2) system through medium alkalinity. *Journal of the American Chemical Society*, **2010**, 132, 1228-9	16.4	97
215	Role of Water Oxidation Catalyst IrO2 in Shuttling Photogenerated Holes Across TiO2 Interface. *Journal of Physical Chemistry Letters*, **2011**, 2, 2304-2310	6.4	94
214	A CdSe Nanowire/Quantum Dot Hybrid Architecture for Improving Solar Cell Performance. *Advanced Functional Materials*, **2010**, 20, 1464-1472	15.6	93
213	Two Distinct Transitions in Cu(x)InS2 Quantum Dots. Bandgap versus Sub-Bandgap Excitations in Copper-Deficient Structures. *Journal of Physical Chemistry Letters*, **2016**, 7, 1452-9	6.4	93
212	Can H-Aggregates Serve as Light-Harvesting Antennae? Triplet□Triplet Energy Transfer between Excited Aggregates and Monomer Thionine in Aersol-OT Solutions. *Journal of Physical Chemistry B*, **1999**, 103, 209-215	3.4	91
211	Primary photochemical events in CdS semiconductor colloids as probed by picosecond laser flash photolysis. *Chemical Physics Letters*, **1989**, 157, 384-389	2.5	89
210	Ultrafast study of interfacial electron transfer between 9-anthracene-carboxylate and TiO2 semiconductor particles. *Journal of Chemical Physics*, **1997**, 107, 8064-8072	3.9	86
209	Photoinduced Charge Separation and Stabilization in Clusters of a Fullerene□Aniline Dyad. *Journal of Physical Chemistry B*, **1999**, 103, 8864-8869	3.4	86
208	Extending the photoresponse of TiO2 to the visible light region: photoelectrochemical behavior of TiO2 thin films prepared by the radio frequency magnetron sputtering deposition method. *Journal of Physical Chemistry B*, **2006**, 110, 5537-41	3.4	85
207	Mechanistic evaluation of arsenite oxidation in TiO2 assisted photocatalysis. *Journal of Physical Chemistry A*, **2005**, 109, 9070-5	2.8	84
206	Hydroxyl Radical's Role in the Remediation of a Common Herbicide, 2,4-Dichlorophenoxyacetic Acid (2,4-D). *Journal of Physical Chemistry A*, **2004**, 108, 10925-10933	2.8	84

205	Wavelength-Dependent Ultrafast Charge Carrier Separation in the WO3/BiVO4 Coupled System. *ACS Energy Letters*, **2017**, 2, 1362-1367	20.1	82
204	Photoinduced Anion Segregation in Mixed Halide Perovskites. *Trends in Chemistry*, **2020**, 2, 282-301	14.8	81
203	Sun-believable solar paint. A transformative one-step approach for designing nanocrystalline solar cells. *ACS Nano*, **2012**, 6, 865-72	16.7	81
202	Modification of electrode surface with semiconductor colloids and its sensitization with chlorophyll a. *Chemical Physics Letters*, **1992**, 191, 320-326	2.5	81
201	Semiconductor Surface Chemistry as Holy Grail in Photocatalysis and Photovoltaics. *Accounts of Chemical Research*, **2017**, 50, 527-531	24.3	80
200	To Exchange or Not to Exchange. Suppressing Anion Exchange in Cesium Lead Halide Perovskites with PbSO4□Oleate Capping. *ACS Energy Letters*, **2018**, 3, 1049-1055	20.1	80
199	Assembling Gold Nanoparticles as Nanostructured Films Using an Electrophoretic Approach. *Nano Letters*, **2001**, 1, 67-70	11.5	79
198	Synchronized energy and electron transfer processes in covalently linked CdSe-squaraine dye-TiO2 light harvesting assembly. *ACS Nano*, **2012**, 6, 5718-26	16.7	77
197	Harvesting Photons in the Infrared. Electron Injection from Excited Tricarbocyanine Dye (IR-125) into TiO2 and [email□protected]2 Core□Shell Nanoparticles. *Journal of Physical Chemistry C*, **2007**, 111, 488-494	3.8	76
196	CdSe/CdS Nanorod Photocatalysts: Tuning the Interfacial Charge Transfer Process through Shell Length. *Chemistry of Materials*, **2015**, 27, 5064-5071	9.6	75
195	How Interplay between Photo and Thermal Activation Dictates Halide Ion Segregation in Mixed Halide Perovskites. *ACS Energy Letters*, **2020**, 5, 56-63	20.1	75
194	Photoinduced Surface Oxidation and Its Effect on the Exciton Dynamics of CdSe Quantum Dots. *Journal of Physical Chemistry C*, **2012**, 116, 13452-13457	3.8	74
193	Photochemistry of textile azo dyes. Spectral characterization of excited state, reduced and oxidized forms of Acid Orange 7. *Journal of Photochemistry and Photobiology A: Chemistry*, **1994**, 83, 141-146	4.7	74
192	Electrochemical Hole Injection Selectively Expels Iodide from Mixed Halide Perovskite Films. *Journal of the American Chemical Society*, **2019**, 141, 10812-10820	16.4	73
191	Rate limiting interfacial hole transfer in Sb2S3 solid-state solar cells. *Energy and Environmental Science*, **2014**, 7, 1148-1158	35.4	73
190	Photoelectrochemistry in particulate systems. 3. Phototransformations in the colloidal titania-thiocyanate system. *Langmuir*, **1985**, 1, 608-611	4	73
189	Electrochemistry and Spectroelectrochemistry of Lead Halide Perovskite Films: Materials Science Aspects and Boundary Conditions. *Chemistry of Materials*, **2018**, 30, 561-569	9.6	72
188	Photochemistry on Semiconductor Surfaces. Visible Light Induced Oxidation of C60 on TiO2 Nanoparticles. *Journal of Physical Chemistry B*, **1997**, 101, 4422-4427	3.4	72

187	Understanding the Implication of Carrier Diffusion Length in Photovoltaic Cells. *Journal of Physical Chemistry Letters*, **2015**, 6, 4090-2	6.4	69
186	Boosting the Photovoltage of Dye-Sensitized Solar Cells with Thiolated Gold Nanoclusters. *Journal of Physical Chemistry Letters*, **2015**, 6, 217-23	6.4	69
185	Harvesting photons with carbon nanotubes. *Nano Today*, **2006**, 1, 20-27	17.9	68
184	Electrochemical rectification in CdSe + TiO2 coupled semiconductor films. *Journal of Electroanalytical Chemistry*, **1993**, 347, 451-456	4.1	68
183	How Does a SILAR CdSe Film Grow? Tuning the Deposition Steps to Suppress Interfacial Charge Recombination in Solar Cells. *Journal of Physical Chemistry Letters*, **2014**, 5, 1575-82	6.4	67
182	Electrochemically Active Nanocrystalline SnO2 Films: Surface Modification with Thiazine and Oxazine Dye Aggregates. *Journal of the Electrochemical Society*, **1995**, 142, 835-839	3.9	67
181	Evolution of Organic–Inorganic Lead Halide Perovskite from Solid-State Iodoplumbate Complexes. *Journal of Physical Chemistry C*, **2015**, 119, 17065-17073	3.8	66
180	Realizing Visible Photoactivity of Metal Nanoparticles: Excited-State Behavior and Electron-Transfer Properties of Silver (Ag8) Clusters. *Journal of Physical Chemistry Letters*, **2012**, 3, 2493-9	6.4	66
179	Charge-Transfer Complexation and Excited-State Interactions in Porphyrin-Silver Nanoparticle Hybrid Structures. *Journal of Physical Chemistry C*, **2011**, 115, 22761-22769	3.8	66
178	Nanostructured assembly of porphyrin clusters for light energy conversion. *Journal of Materials Chemistry*, **2003**, 13, 2515		66
177	Photoelectrochemical behavior of coupled SnO2|CdSe nanocrystalline semiconductor films. *Journal of Electroanalytical Chemistry*, **1997**, 420, 201-207	4.1	63
176	Photoelectrochemistry of Semiconductor ZnO Particulate Films. *Journal of the Electrochemical Society*, **1992**, 139, 1630-1634	3.9	63
175	AgInS-ZnS Quantum Dots: Excited State Interactions with TiO and Photovoltaic Performance. *ACS Applied Materials & Interfaces*, **2017**, 9, 33379-33388	9.5	62
174	Mass-Transfer and Kinetic Studies during the Photocatalytic Degradation of an Azo Dye on Optically Transparent Electrode Thin Film. *Industrial & Engineering Chemistry Research*, **2003**, 42, 2131-2138	3.9	62
173	Photochemistry on surfaces. 4. Influence of support material on the photochemistry of an adsorbed dye. *The Journal of Physical Chemistry*, **1989**, 93, 6428-6433		61
172	Mixed Halide Perovskite Solar Cells. Consequence of Iodide Treatment on Phase Segregation Recovery. *ACS Energy Letters*, **2018**, 3, 2267-2272	20.1	60
171	Ultrafast Photophysical Investigation of Cresyl Violet Aggregates Adsorbed onto Nanometer-Sized Particles of SnO2 and SiO2. *Journal of Physical Chemistry B*, **1997**, 101, 4826-4830	3.4	58
170	Charge Transfer Mediation Through CuxS. The Hole Story of CdSe in Polysulfide. *Journal of Physical Chemistry C*, **2014**, 118, 16463-16471	3.8	53

169	Ruthenium(II) trisbipyridine functionalized gold nanorods. Morphological changes and excited-state interactions. *Journal of Physical Chemistry B*, **2007**, 111, 6839-44	3.4	53
168	Size-Dependent Energy Transfer Pathways in CdSe Quantum Dot Squaraine Light-Harvesting Assemblies: Förster versus Dexter. *Journal of Physical Chemistry C*, **2014**, 118, 18453-18461	3.8	52
167	TiO-Assisted Halide Ion Segregation in Mixed Halide Perovskite Films. *Journal of the American Chemical Society*, **2020**, 142, 5362-5370	16.4	49
166	Photochemistry on Surfaces. Intermolecular Energy and Electron Transfer Processes between Excited Ru(bpy)32+ and H-Aggregates of Cresyl Violet on SiO2 and SnO2 Colloids. *The Journal of Physical Chemistry*, **1995**, 99, 16768-16775		49
165	Modulation of Cu(2-x)S Nanocrystal Plasmon Resonance through Reversible Photoinduced Electron Transfer. *ACS Nano*, **2016**, 10, 2880-6	16.7	48
164	Electron Hopping Through Single-to-Few-Layer Graphene Oxide Films. Side-Selective Photocatalytic Deposition of Metal Nanoparticles. *Journal of Physical Chemistry Letters*, **2012**, 3, 1453-8	6.4	48
163	Chlorophyll b-modified nanocrystalline SnO2 semiconductor thin film as a photosensitive electrode. *Journal of Applied Physics*, **1994**, 75, 5444-5446	2.5	48
162	Photochemistry of sensitizing dyes: spectroscopic and redox properties of cresyl violet. *The Journal of Physical Chemistry*, **1991**, 95, 4406-4410		48
161	Suppressed Halide Ion Migration in 2D Lead Halide Perovskites **2020**, 2, 565-570		48
160	Direct Observation of Reversible Transformation of CHNHPbI and NHPbI Induced by Polar Gaseous Molecules. *Journal of Physical Chemistry Letters*, **2016**, 7, 5068-5073	6.4	47
159	Structural Phase- and Degradation-Dependent Thermal Conductivity of CH3NH3PbI3 Perovskite Thin Films. *Journal of Physical Chemistry C*, **2016**, 120, 6394-6401	3.8	47
158	Hierarchical Arrays of Cesium Lead Halide Perovskite Nanocrystals through Electrophoretic Deposition. *Journal of the American Chemical Society*, **2018**, 140, 8887-8894	16.4	47
157	Bidirectional Halide Ion Exchange in Paired Lead Halide Perovskite Films with Thermal Activation. *ACS Energy Letters*, **2019**, 4, 1961-1969	20.1	47
156	Origin of Reduced Graphene Oxide Enhancements in Electrochemical Energy Storage. *ACS Catalysis* , **2012**, 2, 807-816	13.1	47
155	Photoinduced transformations at semiconductor/metal interfaces: X-ray absorption studies of titania/gold films. *Journal of Applied Physics*, **2003**, 93, 2575-2582	2.5	46
154	Perovskite Photocatalysis. Methyl Viologen Induces Unusually Long-Lived Charge Carrier Separation in CsPbBr3 Nanocrystals. *ACS Energy Letters*, **2020**, 5, 221-223	20.1	46
153	Disassembly, Reassembly, and Photoelectrochemistry of Etched TiO2 Nanotubes. *Journal of Physical Chemistry C*, **2009**, 113, 17967-17972	3.8	45
152	Photochemistry of ruthenium trisbipyridine functionalized on gold nanoparticles. *Journal of Physical Chemistry B*, **2006**, 110, 20737-41	3.4	44

151	Mechanism of hydroxyl radical-induced breakdown of the herbicide 2,4-dichlorophenoxyacetic acid (2,4-d). *Chemistry - A European Journal*, **2003**, 9, 5379-87	4.8	44
150	Photoelectrochemistry of Stacked-Cup Carbon Nanotube Films. Tube-Length Dependence and Charge Transfer with Excited Porphyrin. *Journal of Physical Chemistry C*, **2007**, 111, 16626-16634	3.8	43
149	Photostabilization of Organic Dyes on Poly(styrenesulfonate)-Capped TiO2 Nanoparticles. *Langmuir*, **1997**, 13, 3124-3128	4	42
148	Carbon nanohoops: excited singlet and triplet behavior of [9]- and [12]-cycloparaphenylene. *Journal of Physical Chemistry A*, **2014**, 118, 1595-600	2.8	41
147	Electron transfer between methyl viologen radicals and graphene oxide: Reduction, electron storage and discharge. *Journal of Photochemistry and Photobiology A: Chemistry*, **2011**, 221, 214-219	4.7	41
146	Interactions of Single Wall Carbon Nanotubes with Methyl Viologen Radicals. Quantitative Estimation of Stored Electrons. *Journal of Physical Chemistry C*, **2007**, 111, 9012-9015	3.8	41
145	Picosecond dynamics of cresyl violet H-aggregates adsorbed on SiO2 and SnO2 nanocrystallites. *Journal of Chemical Physics*, **1996**, 105, 965-970	3.9	41
144	Electrochromic and photoelectrochemical behavior of thin WO3 films prepared from quantized colloidal particles. *Thin Solid Films*, **1994**, 247, 195-200	2.2	40
143	Indium-Rich AgInS2–ZnS Quantum Dots: Ag-/Zn-Dependent Photophysics and Photovoltaics. *Journal of Physical Chemistry C*, **2018**, 122, 14336-14344	3.8	40
142	Photoinduced electron charge and discharge of graphene–ZnO nanoparticle assembly. *Catalysis Today*, **2013**, 199, 36-41	5.3	38
141	Composite semiconductor nanoclusters. *Studies in Surface Science and Catalysis*, **1997**, 103, 237-259	1.8	38
140	Fluorescence and photoelectrochemical behavior of chlorophyll a adsorbed on a nanocrystalline SnO2 film. *Journal of Applied Physics*, **1996**, 80, 4637-4643	2.5	38
139	Halide Ion Migration in Perovskite Nanocrystals and Nanostructures. *Accounts of Chemical Research*, **2021**, 54, 520-531	24.3	38
138	How Chloride Suppresses Photoinduced Phase Segregation in Mixed Halide Perovskites. *Chemistry of Materials*, **2020**, 32, 6206-6212	9.6	37
137	Direct observation of spatially heterogeneous single-layer graphene oxide reduction kinetics. *Nano Letters*, **2013**, 13, 5777-84	11.5	37
136	Harvesting Infrared Photons with Croconate Dyes. *Chemistry of Materials*, **2008**, 20, 265-272	9.6	37
135	Harvesting infrared photons with tricarbocyanine dye clusters. *Journal of Physical Chemistry B*, **2006**, 110, 16169-73	3.4	37
134	Complexation of Gold Nanoparticles with Radiolytically Generated Thiocyanate Radicals ((SCN)2•−). *Journal of Physical Chemistry B*, **2000**, 104, 11842-11846	3.4	37

133	Progress in Perovskite Photocatalysis. *ACS Energy Letters*, **2020**, 5, 2602-2604	20.1	36
132	Modulation of Charge Recombination in CsPbBr Perovskite Films with Electrochemical Bias. *Journal of the American Chemical Society*, **2018**, 140, 86-89	16.4	36
131	Charge Carrier Recombination Dynamics of Two-Dimensional Lead Halide Perovskites. *Journal of Physical Chemistry Letters*, **2020**, 11, 2570-2576	6.4	35
130	CdSeS Nanowires: Compositionally Controlled Band Gap and Exciton Dynamics. *Journal of Physical Chemistry Letters*, **2014**, 5, 1103-9	6.4	35
129	Photoinduced Electron Transfer between 1,2,5-Triphenylpyrrolidinofullerene Cluster Aggregates and Electron Donors. *Langmuir*, **2001**, 17, 2930-2936	4	35
128	A quantitative and spatially resolved analysis of the performance-bottleneck in high efficiency, planar hybrid perovskite solar cells. *Energy and Environmental Science*, **2018**, 11, 960-969	35.4	34
127	Drastic difference in lifetimes of the charge-separated state of the formanilide-anthraquinone dyad versus the ferrocene-formanilide-anthraquinone triad and their photoelectrochemical properties of the composite films with fullerene clusters. *Journal of Physical Chemistry A*, **2005**, 109, 4662-70	2.8	34
126	Interfacial Charge Transfer between Excited CsPbBr Nanocrystals and TiO: Charge Injection versus Photodegradation. *Journal of Physical Chemistry Letters*, **2018**, 9, 5962-5969	6.4	34
125	Sequentially Layered CdSe/CdS Nanowire Architecture for Improved Nanowire Solar Cell Performance. *Journal of Physical Chemistry C*, **2014**, 118, 206-213	3.8	33
124	Revival of Solar Paint Concept: Air-Processable Solar Paints for the Fabrication of Quantum Dot-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2017**, 121, 17658-17670	3.8	33
123	Organization of supramolecular assembly of 9-mesityl-10-carboxymethylacridinium ion and fullerene clusters on TiO2 nanoparticles for light energy conversion. *Journal of Materials Chemistry*, **2005**, 15, 372		33
122	Transient photobleaching of small cadmium selenide colloids in acetonitrile. Anodic decomposition. *The Journal of Physical Chemistry*, **1987**, 91, 2096-2099		33
121	Quantum Dot Light-Emitting Devices: Beyond Alignment of Energy Levels. *ACS Applied Materials & Interfaces*, **2017**, 9, 30741-30745	9.5	32
120	Why Surface Chemistry Matters for QDQD Resonance Energy Transfer. *ACS Energy Letters*, **2017**, 2, 391-396	20.1	31
119	Ag(I)-Thiolate-Protected Silver Nanoclusters for Solar Cells: Electrochemical and Spectroscopic Look into the Photoelectrode/Electrolyte Interface. *ACS Applied Materials & Interfaces*, **2019**, 11, 12492-12503	9.5	31
118	Synergistic Effects in the Coupling of Plasmon Resonance of Metal Nanoparticles with Excited Gold Clusters. *Journal of Physical Chemistry Letters*, **2015**, 6, 1870-5	6.4	31
117	CdSe nanowire solar cells using carbazole as a surface modifier. *Journal of Materials Chemistry A*, **2013**, 1, 5487	13	31
116	Iodine (I) Expulsion at Photoirradiated Mixed Halide Perovskite Interface. Should I Stay or Should I Go?. *ACS Energy Letters*, **2020**, 5, 1872-1880	20.1	30

115	Surface Chemistry Matters. How Ligands Influence Excited State Interactions between CsPbBr3 and Methyl Viologen. *Journal of Physical Chemistry C*, **2020**, 124, 12990-12998	3.8	30
114	Galvanic Exchange on Reduced Graphene Oxide: Designing a Multifunctional Two-Dimensional Catalyst Assembly. *Journal of Physical Chemistry C*, **2013**, 117, 571-577	3.8	30
113	Predicting the Rate Constant of Electron Tunneling Reactions at the CdSe-TiO2 Interface. *Journal of Physical Chemistry B*, **2015**, 119, 7439-46	3.4	30
112	Tuning the properties of CdSe nanoparticles in reverse micelles. *Research on Chemical Intermediates* , **2002**, 28, 847-856	2.8	30
111	Hybrid Perovskites for Multijunction Tandem Solar Cells and Solar Fuels. A Virtual Issue. *ACS Energy Letters*, **2018**, 3, 28-29	20.1	30
110	Band Diagram and Effects of the KSCN Treatment in TiO2/Sb2S3/CuSCN ETA Cells. *Journal of Physical Chemistry C*, **2016**, 120, 31-41	3.8	29
109	Picosecond dynamics of an IR sensitive squaraine dye. Role of singlet and triplet excited states in the photosensitization of TiO2 nanoclusters. *Journal of Chemical Physics*, **1997**, 106, 6404-6411	3.9	29
108	Electrochemical and Photoelectrochemical Properties of Monoaza-15-crown Ether Linked Cyanine Dyes: Photosensitization of Nanocrystalline SnO2 Films. *Langmuir*, **1995**, 11, 1777-1783	4	29
107	Lithium-Ion Batteries and Beyond: Celebrating the 2019 Nobel Prize in Chemistry A Virtual Issue. *ACS Energy Letters*, **2019**, 4, 2757-2759	20.1	28
106	Dual-frequency ultrasound for designing two dimensional catalyst surface: Reduced graphene oxide Pt composite. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2012**, 409, 81-87	5.1	28
105	Photodegradation of Polythiophene-Based Polymers: Excited State Properties and Radical Intermediates *Journal of Physical Chemistry C*, **2009**, 113, 11507-11513	3.8	28
104	Origin of Dual Photoluminescence States in ZnS CuInS2 Alloy Nanostructures. *Journal of Physical Chemistry C*, **2016**, 120, 10641-10646	3.8	28
103	Tracking Transformative Transitions: From CsPbBr3 Nanocrystals to Bulk Perovskite Films **2019**, 1, 8-13		26
102	Probing Perovskite Photocatalysis. Interfacial Electron Transfer between CsPbBr and Ferrocene Redox Couple. *Journal of Physical Chemistry Letters*, **2019**, 10, 6074-6080	6.4	24
101	Challenges and Opportunities in Designing Perovskite Nanocrystal Heterostructures. *ACS Energy Letters*, **2020**, 5, 2253-2255	20.1	24
100	Probing Interfacial Electrochemistry on a Co3O4 Water Oxidation Catalyst Using Lab-Based Ambient Pressure X-ray Photoelectron Spectroscopy. *Journal of Physical Chemistry C*, **2018**, 122, 13894-13901	3.8	24
99	Plasmons for Energy Conversion. *ACS Energy Letters*, **2018**, 3, 1467-1469	20.1	24
98	CdSe-graphene oxide light-harvesting assembly: size-dependent electron transfer and light energy conversion aspects. *ChemPhysChem*, **2014**, 15, 2129-35	3.2	24

97	Photoactive porous silicon nanopowder. *ACS Applied Materials & Interfaces*, **2013**, 5, 2943-51	9.5	23
96	Dye-Capped Semiconductor Nanoclusters. One-Electron Reduction and Oxidation of Thionine and Cresyl Violet H-Aggregates Electrostatically Bound to SnO2 Colloids. *Langmuir*, **1996**, 12, 2190-2195	4	23
95	Radical-Induced Oxidative Transformation of Quinoline. *Journal of Physical Chemistry A*, **2003**, 107, 427-438	2.8	22
94	Stacked-Cup Carbon Nanotubes for Photoelectrochemical Solar Cells. *Angewandte Chemie*, **2006**, 118, 769-773	3.6	21
93	Probing photochemical transformations at TiO2Pt and TiO2Ir interfaces using x-ray absorption spectroscopy. *Journal of Chemical Physics*, **2006**, 124, 204720	3.9	21
92	Surface Modification of CdS Colloids with Mercaptoethylamine. *Israel Journal of Chemistry*, **1993**, 33, 47-51	3.4	21
91	Dye Loaded Polymer Electrodes: III . Generation of Photogalvanic Effects at Electrodes Coated with Poly(4-Vinyl Pyridine) Films Containing Rose Bengal. *Journal of the Electrochemical Society*, **1984**, 131, 1032-1037	3.9	21
90	Unusual electrocatalytic behavior of ferrocene bound fullerene cluster films. *Journal of Materials Chemistry*, **2002**, 12, 2021-2025		20
89	Photoinduced Phase Segregation in Mixed Halide Perovskites: Thermodynamic and Kinetic Aspects of ClBr Segregation. *Advanced Optical Materials*, **2020**, 9, 2001440	8.1	20
88	Temperature-driven anion migration in gradient halide perovskites. *Journal of Chemical Physics*, **2019**, 151, 134703	3.9	19
87	Native and Surface Modified Semiconductor Nanoclusters. *Progress in Inorganic Chemistry*, **2007**, 273-343		19
86	Fullerene-Based Supramolecular Nanoclusters with Poly[2-methoxy-5-(2'-ethylhexyloxy)-p-phenylenevinylene] for Light Energy Conversion. *Japanese Journal of Applied Physics*, **2008**, 47, 1223-1229	1.4	18
85	Excited-state and photoelectrochemical behavior of pyrene-linked phenyleneethynylene oligomer. *Journal of Physical Chemistry B*, **2008**, 112, 14539-47	3.4	17
84	Photoinduced charge transfer processes in ultrasmall semiconductor clusters. Photophysical properties of CdS clusters in Nafion membrane. *Journal of Chemical Sciences*, **1993**, 105, 505-512	1.8	17
83	CsPbBr-CdS heterostructure: stabilizing perovskite nanocrystals for photocatalysis. *Chemical Science*, **2021**, 12, 14815-14825	9.4	17
82	Porphyrin-Based Molecular Architectures for Light Energy Conversion. *Molecular Crystals and Liquid Crystals*, **2007**, 471, 39-51	0.5	16
81	Mechanistic pathways of the hydroxyl radical reactions of quinoline. 1. Identification, distribution, and yields of hydroxylated products. *Journal of Physical Chemistry A*, **2005**, 109, 2822-8	2.8	16
80	Spacer Cations Dictate Photoinduced Phase Segregation in 2D Mixed Halide Perovskites. *ACS Energy Letters*, **2021**, 6, 2499-2501	20.1	15

79	Electrocatalytic Sensing with Reduced Graphene Oxide: Electron Shuttling between Redox Couples Anchored on a 2-D Surface. *ACS Sensors*, **2016**, 1, 1203-1207	9.2	15
78	Riding the New Wave of Perovskites. *ACS Energy Letters*, **2017**, 2, 922-923	20.1	13
77	Optoelectronic Properties of CuI Photoelectrodes. *Journal of Physical Chemistry Letters*, **2019**, 10, 259-264	6.4	13
76	A Conversation with Akira Fujishima. *ACS Energy Letters*, **2017**, 2, 1586-1587	20.1	12
75	Photophysical behavior of ultrasmall CdSe semiconductor particles in a perfluorosulfonate membrane. *Materials Letters*, **1990**, 9, 372-378	3.3	12
74	Directing Energy Transfer in Halide Perovskite-Chromophore Hybrid Assemblies. *Journal of the American Chemical Society*, **2021**, 143, 19214-19223	16.4	12
73	Photoinduced Halide Segregation in Ruddlesden-Popper 2D Mixed Halide Perovskite Films. *Advanced Materials*, **2021**, 33, e2105585	24	12
72	Why Seeing Is Not Always Believing: Common Pitfalls in Photocatalysis and Electrocatalysis. *ACS Energy Letters*, **2021**, 6, 707-709	20.1	12
71	Semiconductor Nanostructures for Energy Conversion. *ACS Energy Letters*, **2017**, 2, 1128-1129	20.1	11
70	A Conversation with Michael Grätzel. *ACS Energy Letters*, **2017**, 2, 1674-1676	20.1	11
69	Complex formation in electron-transfer reactions of porphyrins. *Journal of Porphyrins and Phthalocyanines*, **2004**, 08, 191-200	1.8	11
68	Charge Injection from Excited Cs2AgBiBr6 Quantum Dots into Semiconductor Oxides. *Chemistry of Materials*, **2020**, 32, 510-517	9.6	11
67	Electrodeposition of Hole-Transport Layer on Methylammonium Lead Iodide Film: A Strategy To Assemble Perovskite Solar Cells. *Chemistry of Materials*, **2018**, 30, 4202-4206	9.6	10
66	Graphical Excellence. *Journal of Physical Chemistry Letters*, **2014**, 5, 2118-20	6.4	10
65	Onium Salt Effects onp-Terphenyl-Sensitized Photoreduction of Water to Hydrogen. *Journal of Physical Chemistry A*, **1999**, 103, 4874-4878	2.8	10
64	Nickel-Doped MnO2Nanowires Anchored onto Reduced Graphene Oxide for Rapid Cycling Cathode in Lithium Ion Batteries. *ECS Journal of Solid State Science and Technology*, **2013**, 2, M3178-M3181	2	9
63	Transient absorption spectroscopy of nanostructured semiconductor films at controlled potentials. An in situ spectroelectrochemical investigation of the photosensitization process. *Journal of Electroanalytical Chemistry*, **1996**, 401, 237-241	4.1	9
62	Transformation of Perovskite Nanoplatelets to Large Nanostructures Driven by Solvent Polarity **2022**, 4, 93-101		9

61	Surface Oxidation as a Cause of High Open-Circuit Voltage in CdSe ETA Solar Cells. *Advanced Materials Interfaces*, **2015**, 2, 1400346	4.6	8
60	Tuning the Excited-State Dynamics of CuI Films with Electrochemical Bias. *ACS Energy Letters*, **2019**, 4, 702-708	20.1	8
59	Efficacy of Perovskite Photocatalysis: Challenges to Overcome. *ACS Energy Letters*,1994-2011	20.1	8
58	Excited states and reduced and oxidized forms of a textile diazo dye, naphthol blue black. Spectral characterization using laser flash photolysis and pulse radiolysis studies. *Radiation Physics and Chemistry*, **1997**, 49, 159-166	2.5	7
57	Do Sacrificial Donors Donate H2 in Photocatalysis?. *ACS Energy Letters*, **2022**, 7, 242-246	20.1	7
56	Capped semiconductor colloids: Synthesis and photochemistry of CdS capped SnO2 nanocrystallites. *Journal of Chemical Sciences*, **1997**, 109, 497-507	1.8	6
55	Optimization of the electron transport layer in quantum dot light-emitting devices. *NPG Asia Materials*, **2020**, 12,	10.3	6
54	Modulation of Photoinduced Iodine Expulsion in Mixed Halide Perovskites with Electrochemical Bias. *Journal of Physical Chemistry Letters*, **2021**, 12, 2615-2621	6.4	6
53	Vectorial Charge Transfer across Bipolar Membrane Loaded with CdS and Au Nanoparticles. *Journal of Physical Chemistry C*, **2021**, 125, 6870-6876	3.8	6
52	Glutathione-capped gold nanoclusters: photoinduced energy transfer and singlet oxygen generation(^{S }). *Journal of Chemical Sciences*, **2018**, 130, 1	1.8	6
51	Electron transfer reactions. Reaction of furanones and bifurandiones with potassium and oxygen. *Chemische Berichte*, **1986**, 119, 917-928		5
50	Electrochemically induced iodine migration in mixed halide perovskites: suppression through chloride insertion. *Chemical Communications*, **2021**, 57, 235-238	5.8	5
49	Light Induced Processes in CsPbBr3Au Hybrid Nanocrystals: Electron Transfer and Expulsion of Au. *Journal of Physical Chemistry C*, **2021**, 125, 17881-17889	3.8	5
48	Energy Selects. *ACS Energy Letters*, **2019**, 4, 1455-1457	20.1	4
47	Ten Tips for Capturing Figures with Captions. *ACS Energy Letters*, **2019**, 4, 637-638	20.1	4
46	Revealing surface interactions in quantum dot based photovoltaic architectures. *Surface Science*, **2010**, 604, 1331-1332	1.8	4
45	Photoinduced Charge Transfer Processes in Semiconductor Heterostructures. Capped vs. Coupled Systems **1996**, 303-316		4
44	Advances in Solid-State Batteries, a Virtual Issue. *ACS Energy Letters*, **2021**, 6, 2356-2358	20.1	4

43	Perovskite Stories from Around the World. *ACS Energy Letters*, **2019**, 4, 879-887	20.1	3
42	A Bipolar CdS/Pd Photocatalytic Membrane for Selective Segregation of Reduction and Oxidation Processes. *ACS Physical Chemistry Au*,		3
41	Energy Spotlight: New Inroads in Metal Halide Perovskite Research. *ACS Energy Letters*, **2019**, 4, 3036-3038	20.1	3
40	Photocatalysis in Generation of Hydrogen from Water239-270		3
39	Managing photoinduced electron transfer in AgInS-CdS heterostructures.. *Journal of Chemical Physics*, **2022**, 156, 174703	3.9	3
38	Three Pillars of Effective Research. Measurements, Analysis, and Dissemination A Virtual Issue. *ACS Energy Letters*, **2019**, 4, 2473-2474	20.1	2
37	ACS Journals Celebrate 10 Years of Perovskite Photovoltaics. *ACS Energy Letters*, **2019**, 4, 1055-1056	20.1	2
36	Energy Selects. *ACS Energy Letters*, **2019**, 4, 2021-2023	20.1	2
35	Photoinduced Transformation of CsAuBr into CsPbBr Nanocrystals.. *Journal of Physical Chemistry Letters*, **2022**, 2921-2927	6.4	2
34	Oxidative remediation of 4-methylcyclohexanemethanol (MCHM) and propylene glycol phenyl ether (PPh). Evidence of contaminant repair reaction pathways. *Physical Chemistry Chemical Physics*, **2017**, 19, 13324-13332	3.6	1
33	A Conversation with Henry Snaith. *ACS Energy Letters*, **2017**, 2, 2552-2554	20.1	1
32	Energy Selects. *ACS Energy Letters*, **2019**, 4, 2351-2352	20.1	1
31	Influence of Plasmonic CuxS Interfacing Layer on Photovoltaic Performance of CIZS Quantum Dot Sensitized Solar Cells. *Journal of the Electrochemical Society*, **2019**, 166, H3133-H3137	3.9	1
30	Impact Factor, CiteScore, and Citation Analysis. *ACS Energy Letters*, **2020**, 5, 2452-2453	20.1	1
29	What's in a Name?. *Journal of Physical Chemistry Letters*, **2014**, 5, 2879	6.4	1
28	A Conversation with Al Bard. *ACS Energy Letters*, **2017**, 2, 1746-1748	20.1	1
27	Semiconductor nanoparticles **2002**, 129-182		1
26	Women Scientists at the Forefront of Energy Research: A Virtual Issue, Part 3. *ACS Energy Letters*, **2021**, 6, 58-68	20.1	1

25	A Scientific Journey Autobiographical Notes of Prashant V. Kamat. *Journal of Physical Chemistry C*, **2018**, 122, 13207-13209	3.8	1
24	Publications of Prashant V. Kamat. *Journal of Physical Chemistry C*, **2018**, 122, 13214-13232	3.8	1
23	Gas Diffusion Electrodes for CO2 and N2 Reduction: A Virtual Issue. *ACS Energy Letters*, **2022**, 7, 1469-1472	20.1	1
22	Five Common Pitfalls to Avoid while Composing Scientific Figures. *ACS Energy Letters*, **2021**, 6, 4309-4310	20.1	1
21	Energy Spotlight. *ACS Energy Letters*, **2019**, 4, 2763-2769	20.1	0
20	Finding Success through Failures. *ACS Energy Letters*, **2020**, 5, 550-551	20.1	0
19	Energy Selects. *ACS Energy Letters*, **2019**, 4, 2569-2570	20.1	
18	Energy Selects. *ACS Energy Letters*, **2019**, 4, 1204-1205	20.1	
17	A Conversation with Tsutomu (Tom) Miyasaka. *ACS Energy Letters*, **2019**, 4, 832-833	20.1	
16	Confronting Racism in Chemistry Journals. *ACS Applied Nano Materials*, **2020**, 3, 6131-6133	5.6	
15	Confronting Racism in Chemistry Journals. *ACS Applied Polymer Materials*, **2020**, 2, 2496-2498	4.3	
14	Confronting Racism in Chemistry Journals. *Organometallics*, **2020**, 39, 2331-2333	3.8	
13	Update to Our Reader, Reviewer, and Author Communities April 2020. *Energy & Fuels*, **2020**, 34, 5107-5108	4.1	
12	Update to Our Reader, Reviewer, and Author Communities April 2020. *Organometallics*, **2020**, 39, 1665-1666	3.8	
11	A Conversation with Sharon Hammes-Schiffer. *ACS Energy Letters*, **2018**, 3, 1103-1104	20.1	
10	A Conversation with Frans C. De Schryver. *ACS Energy Letters*, **2018**, 3, 191-192	20.1	
9	A Conversation with Can Li. *ACS Energy Letters*, **2017**, 2, 2723-2724	20.1	
8	Energing Applications of TiO2-Based Composites. *Nanostructure Science and Technology*, **2010**, 717-739	0.9	

7	Looking Beyond the First Anniversary. *Journal of Physical Chemistry Letters*, **2011**, 2, 34-5	6.4
6	Confronting Racism in Chemistry Journals. *Journal of Chemical Health and Safety*, **2020**, 27, 198-200	1.7
5	Energy Spotlight. *ACS Energy Letters*, **2021**, 6, 1150-1152	20.1
4	A Conversation with Emily Carter. *ACS Energy Letters*, **2018**, 3, 2470-2471	20.1
3	Energy Spotlight. *ACS Energy Letters*, **2021**, 6, 2983-2984	20.1
2	Tribute to D. D. Sarma. *Journal of Physical Chemistry C*, **2021**, 125, 19049-19052	3.8
1	Tuning Excited-State Energy Transfer for Light Energy Conversion: A Virtual Issue. *ACS Energy Letters*,2114-2117	20.1