

Istvan Robel

List of Publications by Year in descending order

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28
papers

6,861
citations

304602

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501076

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28
docs citations

28
times ranked

9327
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum Dot Solar Cells. Harvesting Light Energy with CdSe Nanocrystals Molecularly Linked to Mesoscopic TiO ₂ Films. <i>Journal of the American Chemical Society</i> , 2006, 128, 2385-2393.	6.6	1,724
2	Size-Dependent Electron Injection from Excited CdSe Quantum Dots into TiO ₂ Nanoparticles. <i>Journal of the American Chemical Society</i> , 2007, 129, 4136-4137.	6.6	816
3	Mn ²⁺ -Doped Lead Halide Perovskite Nanocrystals with Dual-Color Emission Controlled by Halide Content. <i>Journal of the American Chemical Society</i> , 2016, 138, 14954-14961.	6.6	725
4	Controlling the influence of Auger recombination on the performance of quantum-dot light-emitting diodes. <i>Nature Communications</i> , 2013, 4, 2661.	5.8	605
5	Spectral and Dynamical Properties of Single Excitons, Biexcitons, and Trions in Cesium Lead-Halide Perovskite Quantum Dots. <i>Nano Letters</i> , 2016, 16, 2349-2362.	4.5	533
6	Single-Walled Carbon Nanotube-CdS Nanocomposites as Light-Harvesting Assemblies: Photoinduced Charge-Transfer Interactions. <i>Advanced Materials</i> , 2005, 17, 2458-2463.	11.1	485
7	Controlled Alloying of the Core-Shell Interface in CdSe/CdS Quantum Dots for Suppression of Auger Recombination. <i>ACS Nano</i> , 2013, 7, 3411-3419.	7.3	417
8	Universal Size-Dependent Trend in Auger Recombination in Direct-Gap and Indirect-Gap Semiconductor Nanocrystals. <i>Physical Review Letters</i> , 2009, 102, 177404.	2.9	314
9	Enhanced carrier multiplication in engineered quasi-type-II quantum dots. <i>Nature Communications</i> , 2014, 5, 4148.	5.8	143
10	High-Sensitivity p-n Junction Photodiodes Based on PbS Nanocrystal Quantum Dots. <i>Advanced Functional Materials</i> , 2012, 22, 1741-1748.	7.8	139
11	Colloidal Synthesis of Infrared-Emitting Germanium Nanocrystals. <i>Journal of the American Chemical Society</i> , 2009, 131, 3436-3437.	6.6	137
12	Exciton Recombination Dynamics in CdSe Nanowires: A Bimolecular to Three-Carrier Auger Kinetics. <i>Nano Letters</i> , 2006, 6, 1344-1349.	4.5	129
13	Heavily doped n-type PbSe and PbS nanocrystals using ground-state charge transfer from cobaltocene. <i>Scientific Reports</i> , 2013, 3, 2004.	1.6	116
14	Terahertz All-Optical Molecule- Plasmon Modulation. <i>Advanced Materials</i> , 2006, 18, 1645-1648.	11.1	103
15	Spectroscopic Signatures of Photocharging due to Hot-Carrier Transfer in Solutions of Semiconductor Nanocrystals under Low-Intensity Ultraviolet Excitation. <i>ACS Nano</i> , 2010, 4, 6087-6097.	7.3	87
16	Infrared-Active Heterostructured Nanocrystals with Ultralong Carrier Lifetimes. <i>Journal of the American Chemical Society</i> , 2010, 132, 9960-9962.	6.6	80
17	Spectral Dependence of Nanocrystal Photoionization Probability: The Role of Hot-Carrier Transfer. <i>ACS Nano</i> , 2011, 5, 5045-5055.	7.3	74
18	Electronic structure of multiquantum giant vortex states in mesoscopic superconducting disks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 5233-5236.	3.3	37

#	ARTICLE	IF	CITATIONS
19	Perspectives on Designer Photocathodes for X-ray Free-Electron Lasers: Influencing Emission Properties with Heterostructures and Nanoengineered Electronic States. <i>Physical Review Applied</i> , 2018, 10, .	1.5	36
20	Auger Up-Conversion of Low-Intensity Infrared Light in Engineered Quantum Dots. <i>ACS Nano</i> , 2016, 10, 10829-10841.	7.3	31
21	Hot-electron dynamics in quantum dots manipulated by spin-exchange Auger interactions. <i>Nature Nanotechnology</i> , 2019, 14, 1035-1041.	15.6	31
22	Photocharging Artifacts in Measurements of Electron Transfer in Quantum-Dot-Sensitized Mesoporous Titania Films. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 111-118.	2.1	29
23	Tuning the Redox Coupling between Quantum Dots and Dopamine in Hybrid Nanoscale Assemblies. <i>Journal of Physical Chemistry C</i> , 2015, 119, 3388-3399.	1.5	22
24	Structural changes and catalytic activity of platinum nanoparticles supported on C60 and carbon nanotube films during the operation of direct methanol fuel cells. <i>Applied Physics Letters</i> , 2006, 88, 073113.	1.5	21
25	Temperature and Magnetic-Field Dependence of Radiative Decay in Colloidal Germanium Quantum Dots. <i>Nano Letters</i> , 2015, 15, 2685-2692.	4.5	10
26	Thermal stability of two-dimensional gold nanocrystal superlattices. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 264011.	0.7	9
27	Quantum Dot Thin-Films as Rugged, High-Performance Photocathodes. <i>Nano Letters</i> , 2017, 17, 2319-2327.	4.5	6
28	Phonon-assisted nonlinear optical processes in ultrashort-pulse pumped optical parametric amplifiers. <i>Scientific Reports</i> , 2016, 6, 23031.	1.6	2