Joel van Embden

List of Publications by Year
in descending order

56 papers	4,013 citations	159525 30 h-index	175177 52 g-index
60 all docs	60 docs citations	60 times ranked	6434 citing authors

#	Article	IF	Citations
1	Re-examination of the Size-Dependent Absorption Properties of CdSe Quantum Dots. Journal of Physical Chemistry C, 2009, 113, 19468-19474.	1.5	523
2	The Heat-Up Synthesis of Colloidal Nanocrystals. Chemistry of Materials, 2015, 27, 2246-2285.	3.2	313
3	Phosphine-Free Synthesis of CdSe Nanocrystals. Journal of Physical Chemistry B, 2005, 109, 20665-20668.	1.2	225
4	Nucleation and Growth of CdSe Nanocrystals in a Binary Ligand System. Langmuir, 2005, 21, 10226-10233.	1.6	203
5	Electronic Tuning of 2D MoS₂ through Surface Functionalization. Advanced Materials, 2015, 27, 6225-6229.	11.1	194
6	Highâ€Performance Field Effect Transistors Using Electronic Inks of 2D Molybdenum Oxide Nanoflakes. Advanced Functional Materials, 2016, 26, 91-100.	7.8	164
7	Mapping the Optical Properties of CdSe/CdS Heterostructure Nanocrystals: The Effects of Core Size and Shell Thickness. Journal of the American Chemical Society, 2009, 131, 14299-14309.	6.6	159
8	Near-Infrared Absorbing Cu₁₂Sb₄S₁₃ and Cu₃SbS₄ Nanocrystals: Synthesis, Characterization, and Photoelectrochemistry. Journal of the American Chemical Society, 2013, 135, 11562-11571.	6.6	155
9	Excitonâ^'Trion Transitions in Single CdSeâ€“CdS Coreâ€“Shell Nanocrystals. ACS Nano, 2009, 3, 2281-2287.	7.3	131
10	Oxygen-deficient photostable Cu₂O for enhanced visible light photocatalytic activity. Nanoscale, 2018, 10, 6039-6050.	2.8	115
11	Review of the Synthetic Chemistry Involved in the Production of Core/Shell Semiconductor Nanocrystals. Australian Journal of Chemistry, 2007, 60, 457.	0.5	114
12	Non-injection Synthesis of Doped Zinc Oxide Plasmonic Nanocrystals. ACS Nano, 2014, 8, 9154-9163.	7.3	112
13	Exfoliation Solvent Dependent Plasmon Resonances in Two-Dimensional Sub-Stoichiometric Molybdenum Oxide Nanoflakes. ACS Applied Materials & Interfaces, 2016, 8, 3482-3493.	4.0	111
14	Sonicationâ€Assisted Synthesis of Gallium Oxide Suspensions Featuring Trap State Absorption: Test of Photochemistry. Advanced Functional Materials, 2017, 27, 1702295.	7.8	110
15	Blinking and Surface Chemistry of Single CdSe Nanocrystals. Small, 2006, 2, 204-208.	5.2	108
16	Cu₂ZnSnS_{4x}Se_{4(1â€“x)} Solar Cells from Polar Nanocrystal Inks. Journal of the American Chemical Society, 2014, 136, 5237-5240.	6.6	102
17	High Activity Phosphine-Free Selenium Precursor Solution for Semiconductor Nanocrystal Growth. Chemistry of Materials, 2010, 22, 4135-4143.	3.2	97
18	Synthesis and characterisation of famatinite copper antimony sulfide nanocrystals. Journal of Materials Chemistry, 2012, 22, 11466.	6.7	93

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19	Evolution of Colloidal Nanocrystals: Theory and Modeling of their Nucleation and Growth. Journal of Physical Chemistry C, 2009, 113, 16342-16355.	1.5	92
20	High-mobility p-type semiconducting two-dimensional Î²-TeO2. Nature Electronics, 2021, 4, 277-283.	13.1	75
21	Soft exfoliation of 2D SnO with size-dependent optical properties. 2D Materials, 2017, 4, 025110.	2.0	59
22	In Situ Formation of Reactive Sulfide Precursors in the One-Pot, Multigram Synthesis of Cu₂ZnSnS₄ Nanocrystals. Crystal Growth and Design, 2013, 13, 1712-1720.	1.4	57
23	Photonic Sintering of Copper through the Controlled Reduction of Printed CuO Nanocrystals. ACS Applied Materials & Interfaces, 2015, 7, 25473-25478.	4.0	57
24	Enhanced two-photon absorption of CdS nanocrystal rods. Applied Physics Letters, 2009, 94, 103117.	1.5	54
25	Back-contacted hybrid organicâ€“inorganic perovskite solar cells. Journal of Materials Chemistry C, 2016, 4, 3125-3130.	2.7	54
26	Spectral diffusion of single semiconductor nanocrystals: The influence of the dielectric environment. Applied Physics Letters, 2006, 88, 154106.	1.5	49
27	Cu2ZnGeS4 Nanocrystals from Air-Stable Precursors for Sintered Thin Film Alloys. Chemistry of Materials, 2014, 26, 5482-5491.	3.2	42
28	Two-photon-induced photoenhancement of densely packed CdSeâ•ZnSeâ•ZnS nanocrystal solids and its application to multilayer optical data storage. Applied Physics Letters, 2004, 85, 5514-5516.	1.5	40
29	Significant Enhancement of Antimicrobial Activity in Oxygen-Deficient Zinc Oxide Nanowires. ACS Applied Bio Materials, 2020, 3, 2997-3004.	2.3	36
30	Highly Nonâ€Linear Quantum Dot Doped Nanocomposites for Functional Threeâ€Dimensional Structures Generated by Twoâ€Photon Polymerization. Advanced Materials, 2010, 22, 2463-2467.	11.1	32
31	High Gain Solutionâ€Processed Carbonâ€Free BiSI Chalcohalide Thin Film Photodetectors. Advanced Functional Materials, 2021, 31, 2104788.	7.8	30
32	Plasmonic Ge-doped ZnO nanocrystals. Chemical Communications, 2015, 51, 12369-12372.	2.2	28
33	Flashâ€Assisted Processing of Highly Conductive Zinc Oxide Electrodes from Water. Advanced Functional Materials, 2015, 25, 7263-7271.	7.8	25
34	Solution-Processed CuSbS₂ Thin Films and Superstrate Solar Cells with CdS/In₂S₃ Buffer Layers. ACS Applied Energy Materials, 2020, 3, 7885-7895.	2.5	25
35	Ultrathin Solar Absorber Layers of Silver Bismuth Sulfide from Molecular Precursors. ACS Applied Materials & Interfaces, 2019, 11, 16674-16682.	4.0	24
36	Mimicry of Sputtered i-ZnO Thin Films Using Chemical Bath Deposition for Solution-Processed Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 22519-22526.	4.0	23

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37	Ultrasonic Spray Pyrolysis of Antimonyâ€Doped Tin Oxide Transparent Conductive Coatings. Advanced Materials Interfaces, 2020, 7, 2000655.	1.9	20
38	Optically monitored spray coating system for the controlled deposition of the photoactive layer in organic solar cells. Applied Physics Letters, 2015, 106, .	1.5	18
39	Continuous Growth Synthesis of Zinc Oxide Nanocrystals with Tunable Size and Doping. Chemistry of Materials, 2019, 31, 9604-9613.	3.2	18
40	Transparent electrodes based on spray coated fluorine-doped tin oxide with enhanced optical, electrical and mechanical properties. Journal of Materials Chemistry C, 2020, 8, 14531-14539.	2.7	17
41	Augmented band gap tunability in indium-doped zinc sulfide nanocrystals. Nanoscale, 2019, 11, 3154-3163.	2.8	15
42	Accurate control of stoichiometry and doping in barium stannate perovskite oxide nanoparticles. Chemical Communications, 2019, 55, 11880-11883.	2.2	14
43	Plastic Microgroove Solar Cells Using CuInSe₂ Nanocrystals. ACS Energy Letters, 2016, 1, 1021-1027.	8.8	13
44	Fluorine-Doped Tin Oxide Colloidal Nanocrystals. Nanomaterials, 2020, 10, 863.	1.9	12
45	Highly Conductive and Visibly Transparent p-Type CuCrO₂ Films by Ultrasonic Spray Pyrolysis. ACS Applied Materials & Interfaces, 2022, 14, 11768-11778.	4.0	11
46	Highâ€Resistance Metal Oxide Window Layers for Optimal Front Contact Interfaces in Sb₂Se₃ Solar Cells. Solar Rrl, 2022, 6, .	3.1	8
47	The formation mechanism of Janus nanostructures in one-pot reactions: the case of Agâ€“Ag₈GeS₆. Journal of Materials Chemistry A, 2016, 4, 7060-7070.	5.2	7
48	Superâ€resolution imaging and statistical analysis of CdSe/CdS Core/Shell semiconductor nanocrystals. Journal of Biophotonics, 2010, 3, 437-445.	1.1	6
49	Type-II core/shell nanoparticle induced photorefractivity. Applied Physics Letters, 2011, 98, 231107.	1.5	6
50	Enhanced photorefractive performance in CdSe quantum-dot-dispersed poly(styrene-co-acrylonitrile) polymers. Applied Physics Letters, 2010, 96, 253302.	1.5	5
51	Surface transfer doping of diamond using solution-processed molybdenum trioxide. Carbon, 2021, 175, 20-26.	5.4	5
52	SILAR deposition of bismuth vanadate photoanodes for photoelectrochemical water splitting. Journal of Materials Chemistry A, 2021, 9, 25641-25650.	5.2	5
53	Perovskite-Inspired High Stability Organometal Antimony(V) Halide Thin Films by Post-Deposition Bromination. , 2020, 2, 1203-1210.		2
54	Functional three-dimensional nonlinear nanostructures in a gold ion nanocomposite. , 2011, , .		0

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55	Optoelectronics: Flashâ€Assisted Processing of Highly Conductive Zinc Oxide Electrodes from Water (Adv. Funct. Mater. 47/2015). Advanced Functional Materials, 2015, 25, 7246-7246.	7.8	0
56	Transparent Electrodes: Ultrasonic Spray Pyrolysis of Antimonyâ€Doped Tin Oxide Transparent Conductive Coatings (Adv. Mater. Interfaces 18/2020). Advanced Materials Interfaces, 2020, 7, 2070104.	1.9	0