

Joel van Embden

List of Publications by Year in descending order

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56
papers

4,013
citations

159358

30
h-index

174990

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 MoS ₂ through Surface Functionalization. Advanced Materials, 2015, 27, 6225-6229.	11.1	194
6	High-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 Cu ₁₂ Sb ₄ S ₁₃ and Cu ₃ SbS ₄ Nanocrystals: Synthesis, Characterization, and Photoelectrochemistry. Journal of the American Chemical Society, 2013, 135, 11562-11571.	6.6	155
9	Exciton ⁺ Trion Transitions in Single CdSe ⁺ CdS Core ⁺ Shell Nanocrystals. ACS Nano, 2009, 3, 2281-2287.	7.3	131
10	Oxygen-deficient photostable Cu ₂ O 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	Sonication-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	Cu ₂ ZnSnS ₄ Se ₄ 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 TeO_2 . 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 $\text{Cu}_2\text{ZnSnS}_4$ 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 organic-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	$\text{Cu}_2\text{ZnGeS}_4$ 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 $\text{CdSe}/\text{ZnSe}/\text{ZnS}$ 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 Nonlinear Quantum Dot Doped Nanocomposites for Functional Three-Dimensional Structures Generated by Two-Photon Polymerization. Advanced Materials, 2010, 22, 2463-2467.	11.1	32
31	High Gain Solution-Processed Carbon-Free BiSI Chalcogenide 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	Flash-Assisted Processing of Highly Conductive Zinc Oxide Electrodes from Water. Advanced Functional Materials, 2015, 25, 7263-7271.	7.8	25
34	Solution-Processed CuSbS_2 Thin Films and Superstrate Solar Cells with $\text{CdS}/\text{In}_2\text{S}_3$ 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 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 Antimony-Doped Tin Oxide Transparent Conductive Coatings. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000655.	1.9	20
38	Optically monitored spray coating system for the controlled deposition of the photoactive layer in organic solar cells. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	18
39	Continuous Growth Synthesis of Zinc Oxide Nanocrystals with Tunable Size and Doping. <i>Chemistry of Materials</i> , 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. <i>Journal of Materials Chemistry C</i> , 2020, 8, 14531-14539.	2.7	17
41	Augmented band gap tunability in indium-doped zinc sulfide nanocrystals. <i>Nanoscale</i> , 2019, 11, 3154-3163.	2.8	15
42	Accurate control of stoichiometry and doping in barium stannate perovskite oxide nanoparticles. <i>Chemical Communications</i> , 2019, 55, 11880-11883.	2.2	14
43	Plastic Microgroove Solar Cells Using CuInSe_2 Nanocrystals. <i>ACS Energy Letters</i> , 2016, 1, 1021-1027.	8.8	13
44	Fluorine-Doped Tin Oxide Colloidal Nanocrystals. <i>Nanomaterials</i> , 2020, 10, 863.	1.9	12
45	Highly Conductive and Visibly Transparent p-Type CuCrO_2 Films by Ultrasonic Spray Pyrolysis. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 11768-11778.	4.0	11
46	High-Resistance Metal Oxide Window Layers for Optimal Front Contact Interfaces in Sb_2Se_3 Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	8
47	The formation mechanism of Janus nanostructures in one-pot reactions: the case of Ag_8GeS_6 . <i>Journal of Materials Chemistry A</i> , 2016, 4, 7060-7070.	5.2	7
48	Super-resolution imaging and statistical analysis of CdSe/CdS Core/Shell semiconductor nanocrystals. <i>Journal of Biophotonics</i> , 2010, 3, 437-445.	1.1	6
49	Type-II core/shell nanoparticle induced photorefractivity. <i>Applied Physics Letters</i> , 2011, 98, 231107.	1.5	6
50	Enhanced photorefractive performance in CdSe quantum-dot-dispersed poly(styrene-co-acrylonitrile) polymers. <i>Applied Physics Letters</i> , 2010, 96, 253302.	1.5	5
51	Surface transfer doping of diamond using solution-processed molybdenum trioxide. <i>Carbon</i> , 2021, 175, 20-26.	5.4	5
52	SILAR deposition of bismuth vanadate photoanodes for photoelectrochemical water splitting. <i>Journal of Materials Chemistry A</i> , 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: Flash-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 Antimony-Doped Tin Oxide Transparent Conductive Coatings (Adv. Mater. Interfaces 18/2020). Advanced Materials Interfaces, 2020, 7, 2070104.	1.9	0