

William A Tisdale

List of Publications by Year in descending order

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83
papers

7,131
citations

76196

40
h-index

58464

82
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91
all docs

91
docs citations

91
times ranked

9581
citing authors

#	ARTICLE	IF	CITATIONS
1	Morphological Control of 2D Hybrid Organic-Inorganic Semiconductor AgSePh. ACS Nano, 2022, 16, 2054-2065.	7.3	13
2	Super-resolved second harmonic generation imaging by coherent image scanning microscopy. Applied Physics Letters, 2022, 120, .	1.5	3
3	Healing of donor defect states in monolayer molybdenum disulfide using oxygen-incorporated chemical vapour deposition. Nature Electronics, 2022, 5, 28-36.	13.1	44
4	Busting through quantum dot barriers. Nature Materials, 2022, 21, 497-499.	13.3	3
5	Quantification of Exciton Fine Structure Splitting in a Two-Dimensional Perovskite Compound. Journal of Physical Chemistry Letters, 2022, 13, 4463-4469.	2.1	20
6	Tuning the Excitonic Properties of the 2D (PEA) ₂ (MA) _{n-1} PbI ₃ +1 Perovskite Family via Quantum Confinement. Journal of Physical Chemistry Letters, 2021, 12, 1638-1643.	2.1	49
7	Repulsive, Densely Packed Ligand-Shells Mediate Interactions between PbS Nanocrystals in Solution. Journal of Physical Chemistry C, 2021, 125, 8014-8020.	1.5	4
8	Resonance-Enhanced Excitation of Interlayer Vibrations in Atomically Thin Black Phosphorus. Nano Letters, 2021, 21, 4809-4815.	4.5	8
9	State of the Art and Prospects for Halide Perovskite Nanocrystals. ACS Nano, 2021, 15, 10775-10981.	7.3	705
10	Temperature-Independent Dielectric Constant in CsPbBr ₃ Nanocrystals Revealed by Linear Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2021, 12, 8088-8095.	2.1	19
11	Colloidal nano-MOFs nucleate and stabilize ultra-small quantum dots of lead bromide perovskites. Chemical Science, 2021, 12, 6129-6135.	3.7	14
12	Revealing the Brønsted-Evans-Polanyi relation in halide-activated fast MoS ₂ growth toward millimeter-sized 2D crystals. Science Advances, 2021, 7, eabj3274.	4.7	18
13	Power-Dependent Photoluminescence Efficiency in Manganese-Doped 2D Hybrid Perovskite Nanoplatelets. ACS Nano, 2021, 15, 20527-20538.	7.3	16
14	Size and Quality Enhancement of 2D Semiconducting Metal-Organic Chalcogenolates by Amine Addition. Journal of the American Chemical Society, 2021, 143, 20256-20263.	6.6	20
15	Spatially Resolved Photogenerated Exciton and Charge Transport in Emerging Semiconductors. Annual Review of Physical Chemistry, 2020, 71, 1-30.	4.8	95
16	Two Origins of Broadband Emission in Multilayered 2D Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 8565-8572.	2.1	61
17	Unconventional ferroelectricity in moiré heterostructures. Nature, 2020, 588, 71-76.	13.7	165
18	Low-frequency Raman spectrum of 2D layered perovskites: Local atomistic motion or superlattice modes?. Journal of Chemical Physics, 2020, 153, 044710.	1.2	26

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19	Optimal loading for injection. AICHE Journal, 2020, 66, e17102.	1.8	1
20	A time-domain view of charge carriers in semiconductor nanocrystal solids. Chemical Science, 2020, 11, 5157-5167.	3.7	8
21	The Importance of Unbound Ligand in Nanocrystal Superlattice Formation. Journal of the American Chemical Society, 2020, 142, 9675-9685.	6.6	23
22	Reversible Temperature-Induced Structural Transformations in PbS Nanocrystal Superlattices. Journal of Physical Chemistry C, 2020, 124, 13456-13466.	1.5	9
23	Tunable exciton binding energy in 2D hybrid layered perovskites through donor-acceptor interactions within the organic layer. Nature Chemistry, 2020, 12, 672-682.	6.6	120
24	Multi-cation perovskites prevent carrier reflection from grain surfaces. Nature Materials, 2020, 19, 412-418.	13.3	100
25	Substrate-Dependent Exciton Diffusion and Annihilation in Chemically Treated MoS ₂ and WS ₂ . Journal of Physical Chemistry C, 2020, 124, 12175-12184.	1.5	51
26	Synthetic Variation and Structural Trends in Layered Two-Dimensional Alkylammonium Lead Halide Perovskites. Chemistry of Materials, 2019, 31, 5592-5607.	3.2	80
27	Epitaxial Dimers and Auger-Assisted Detrapping in PbS Quantum Dot Solids. Matter, 2019, 1, 250-265.	5.0	56
28	Characterization of colloidal nanocrystal surface structure using small angle neutron scattering and efficient Bayesian parameter estimation. Journal of Chemical Physics, 2019, 150, 244702.	1.2	22
29	Quantification of a PbCl _x Shell on the Surface of PbS Nanocrystals. , 2019, 1, 209-216.		35
30	Facile Synthesis of Colloidal Lead Halide Perovskite Nanoplatelets via Ligand-Assisted Reprecipitation. Journal of Visualized Experiments, 2019, , .	0.2	3
31	Size-Dependent Biexciton Spectrum in CsPbBr ₃ Perovskite Nanocrystals. ACS Energy Letters, 2019, 4, 2639-2645.	8.8	53
32	Direct Observation of Symmetry-Dependent Electron-Phonon Coupling in Black Phosphorus. Journal of the American Chemical Society, 2019, 141, 18994-19001.	6.6	21
33	Inorganic Cage Motion Dominates Excited-State Dynamics in 2D-Layered Perovskites (C _x H ₂ xNH ₃) ₂ PbI ₄ (x = 4-9). Journal of Physical Chemistry C, 2019, 123, 27904-27916.		
34	Setting an Upper Bound to the Biexciton Binding Energy in CsPbBr ₃ Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2019, 10, 5680-5686.	2.1	29
35	Excitons in 2D Organic-Inorganic Halide Perovskites. Trends in Chemistry, 2019, 1, 380-393.	4.4	146
36	Melting Transitions of the Organic Subphase in Layered Two-Dimensional Halide Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 2924-2930.	2.1	23

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37	Markov Chain Monte Carlo Sampling for Target Analysis of Transient Absorption Spectra. Journal of Physical Chemistry A, 2019, 123, 3893-3902.	1.1	10
38	Toward Stable Deep-Blue Luminescent Colloidal Lead Halide Perovskite Nanoplatelets: Systematic Photostability Investigation. Chemistry of Materials, 2019, 31, 2486-2496.	3.2	55
39	Obtaining Structural Parameters from STEM-EDX Maps of Core/Shell Nanocrystals for Optoelectronics. ACS Applied Nano Materials, 2018, 1, 989-996.	2.4	15
40	Impact of Size Dispersity, Ligand Coverage, and Ligand Length on the Structure of PbS Nanocrystal Superlattices. Chemistry of Materials, 2018, 30, 807-816.	3.2	93
41	Perspective: Nonequilibrium dynamics of localized and delocalized excitons in colloidal quantum dot solids. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	0.9	15
42	Synthetic Lateral Metal-Semiconductor Heterostructures of Transition Metal Disulfides. Journal of the American Chemical Society, 2018, 140, 12354-12358.	6.6	85
43	Phase-Modulated Degenerate Parametric Amplification Microscopy. Nano Letters, 2018, 18, 5001-5006.	4.5	14
44	High repetition-rate femtosecond stimulated Raman spectroscopy with fast acquisition. Optics Express, 2018, 26, 18331.	1.7	8
45	Optimal Bandgap in a 2D Ruddlesden-Popper Perovskite Chalcogenide for Single-Junction Solar Cells. Chemistry of Materials, 2018, 30, 4882-4886.	3.2	49
46	Ultrafast Charge Transfer at a Quantum Dot/2D Materials Interface Probed by Second Harmonic Generation. Journal of Physical Chemistry Letters, 2018, 9, 4227-4232.	2.1	32
47	Inverse Temperature Dependence of Charge Carrier Hopping in Quantum Dot Solids. ACS Nano, 2018, 12, 7741-7749.	7.3	33
48	Charge Carrier Hopping Dynamics in Homogeneously Broadened PbS Quantum Dot Solids. Nano Letters, 2017, 17, 893-901.	4.5	84
49	Tunable Light-Emitting Diodes Utilizing Quantum-Confined Layered Perovskite Emitters. ACS Photonics, 2017, 4, 476-481.	3.2	124
50	Colloidal Halide Perovskite Nanoplatelets: An Exciting New Class of Semiconductor Nanomaterials. Chemistry of Materials, 2017, 29, 5019-5030.	3.2	237
51	CdSe Nanoplatelet Films with Controlled Orientation of their Transition Dipole Moment. Nano Letters, 2017, 17, 3837-3843.	4.5	135
52	Exciton trapping is responsible for the long apparent lifetime in acid-treated MoS_2 . Physical Review B, 2017, 96, .	1.1	15
53	Including surface ligand effects in continuum elastic models of nanocrystal vibrations. Journal of Chemical Physics, 2017, 147, 044711.	1.2	22
54	A Nanobionic Light-Emitting Plant. Nano Letters, 2017, 17, 7951-7961.	4.5	93

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55	Near-Infrared Photoluminescence and Thermal Stability of PbS Nanocrystals at Elevated Temperatures. <i>Journal of Physical Chemistry C</i> , 2016, 120, 20341-20349.	1.5	21
56	Modulation of Low-Frequency Acoustic Vibrations in Semiconductor Nanocrystals through Choice of Surface Ligand. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4213-4216.	2.1	24
57	Temperature dependence of acoustic vibrations of CdSe and CdSe@CdS core-shell nanocrystals measured by low-frequency Raman spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 28797-28801.	1.3	17
58	Highly Tunable Colloidal Perovskite Nanoplatelets through Variable Cation, Metal, and Halide Composition. <i>ACS Nano</i> , 2016, 10, 7830-7839.	7.3	466
59	Efficient Nanosecond Photoluminescence from Infrared PbS Quantum Dots Coupled to Plasmonic Nanoantennas. <i>ACS Photonics</i> , 2016, 3, 1741-1746.	3.2	70
60	Goodman and Tisdale Reply. <i>Physical Review Letters</i> , 2016, 116, 059402.	2.9	2
61	Kinetics of the self-assembly of nanocrystal superlattices measured by real-time in situ X-ray Scattering. <i>Nature Materials</i> , 2016, 15, 775-781.	13.3	216
62	Constructing Multifunctional Virus-Templated Nanoporous Composites for Thin Film Solar Cells: Contributions of Morphology and Optics to Photocurrent Generation. <i>Journal of Physical Chemistry C</i> , 2015, , 150610114441003.	1.5	14
63	Can Disorder Enhance Incoherent Exciton Diffusion?. <i>Journal of Physical Chemistry B</i> , 2015, 119, 9501-9509.	1.2	22
64	Enhancement of Second-Order Nonlinear-Optical Signals by Optical Stimulation. <i>Physical Review Letters</i> , 2015, 114, 183902.	2.9	15
65	Colloidal Organohalide Perovskite Nanoplatelets Exhibiting Quantum Confinement. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1911-1916.	2.1	358
66	Determination of Exciton Diffusion Length by Transient Photoluminescence Quenching and Its Application to Quantum Dot Films. <i>Journal of Physical Chemistry C</i> , 2015, 119, 9005-9015.	1.5	84
67	Interparticle Spacing and Structural Ordering in Superlattice PbS Nanocrystal Solids Undergoing Ligand Exchange. <i>Chemistry of Materials</i> , 2015, 27, 474-482.	3.2	111
68	Visualization of exciton transport in ordered and disordered molecular solids. <i>Nature Communications</i> , 2014, 5, 3646.	5.8	270
69	Subdiffusive Exciton Transport in Quantum Dot Solids. <i>Nano Letters</i> , 2014, 14, 3556-3562.	4.5	152
70	Reduced Dielectric Screening and Enhanced Energy Transfer in Single- and Few-Layer MoS ₂ . <i>Nano Letters</i> , 2014, 14, 6087-6091.	4.5	178
71	Spatially Resolved Energy Transfer in Patterned Colloidal Quantum Dot Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 3111-3114.	4.0	12
72	Monodisperse, Air-Stable PbS Nanocrystals <i>via</i> Precursor Stoichiometry Control. <i>ACS Nano</i> , 2014, 8, 6363-6371.	7.3	315

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73	Transition from Thermodynamic to Kinetic-Limited Excitonic Energy Migration in Colloidal Quantum Dot Solids. <i>Journal of Physical Chemistry C</i> , 2014, 118, 7894-7900.	1.5	22
74	Magnitude of the Förster Radius in Colloidal Quantum Dot Solids. <i>Journal of Physical Chemistry C</i> , 2014, 118, 13920-13928.	1.5	67
75	Origin of Efficiency Roll-Off in Colloidal Quantum-Dot Light-Emitting Diodes. <i>Physical Review Letters</i> , 2013, 110, 217403.	2.9	144
76	Highly efficient, dual state emission from an organic semiconductor. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	76
77	Twenty-Fold Enhancement of Molecular Fluorescence by Coupling to a J-Aggregate Critically Coupled Resonator. <i>ACS Nano</i> , 2012, 6, 467-471.	7.3	28
78	Artificial atoms on semiconductor surfaces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 965-970.	3.3	96
79	Hot-Electron Transfer from Semiconductor Nanocrystals. <i>Science</i> , 2010, 328, 1543-1547.	6.0	775
80	Strong Electronic Coupling in Two-Dimensional Assemblies of Colloidal PbSe Quantum Dots. <i>ACS Nano</i> , 2009, 3, 1532-1538.	7.3	109
81	Electron Dynamics at the ZnO (101̄...0) Surface. <i>Journal of Physical Chemistry C</i> , 2008, 112, 14682-14692.	1.5	38
82	Coulomb Barrier for Charge Separation at an Organic Semiconductor Interface. <i>Physical Review Letters</i> , 2008, 101, 196403.	2.9	153
83	Surfaces of Infrared-Active PbS Nanocrystals and their Assemblies. , 0, , .		0