Michael D Barnes

List of Publications by Year
in descending order

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40 papers	897 citations	394286 19 h-index	454834 30 g-index
40 all docs	40 docs citations	40 times ranked	1741 citing authors

#	Article	IF	Citations
1	Recent progress of heterostructures based on two dimensional materials and wide bandgap semiconductors. Journal of Physics Condensed Matter, 2022, 34, 183001.	0.7	19
2	Stabilization of Three-Particle Excitations in Monolayer MoS₂ by Fluorinated Methacrylate Polymers. Journal of Physical Chemistry Letters, 2022, 13, 4794-4799.	2.1	1
3	Generating and Capturing Secondary Hot Carriers in Monolayer Tungsten Dichalcogenides. Journal of Physical Chemistry Letters, 2022, 13, 5703-5710.	2.1	2
4	Copper Bromide Hole Transport Layer for Stable and Efficient Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 8075-8083.	2.5	5
5	Toward Waferâ€Scale Production of 2D Transition Metal Chalcogenides. Advanced Electronic Materials, 2021, 7, 2100278.	2.6	16
6	Polarization-Driven Asymmetric Electronic Response of Monolayer Graphene to Polymer Zwitterions Probed from Both Sides. ACS Applied Materials & Interfaces, 2021, 13, 47945-47953.	4.0	3
7	Spatial mapping of exciton transition energy and strain in composition graded WS2(1â^'x)Se2x monolayer. Journal of Applied Physics, 2020, 128, 124304.	1.1	8
8	Surface and grain boundary carbon heterogeneity in CH3NH3PbI3 perovskites and its impact on optoelectronic properties. Applied Physics Reviews, 2020, 7, .	5.5	9
9	High-Fidelity Transfer of Chemical Vapor Deposition Grown 2D Transition Metal Dichalcogenides via Substrate Decoupling and Polymer/Small Molecule Composite. ACS Nano, 2020, 14, 7370-7379.	7.3	22
10	Tuning charge transport dynamics via clustering of doping in organic semiconductor thin films. Nature Communications, 2019, 10, 2827.	5.8	73
11	Controlled fractal growth of transition metal dichalcogenides. Nanoscale, 2019, 11, 17065-17072.	2.8	15
12	Probing the Evolution of Molecular Packing Underlying HJ-Aggregate Transition in Organic Semiconductors Using Solvent Vapor Annealing. Journal of Physical Chemistry C, 2019, 123, 28948-28957.	1.5	3
13	Bidirectional Electronic Tuning of Single-Layer MoS₂ with Conjugated Organochalcogens. Journal of Physical Chemistry C, 2019, 123, 1506-1511.	1.5	6
14	Bithiazolidinylidene polymers: synthesis and electronic interactions with transition metal dichalcogenides. Chemical Science, 2018, 9, 5047-5051.	3.7	7
15	Evolution of HJ Coupling in Nanoscale Molecular Self-Assemblies. Journal of Physical Chemistry C, 2018, 122, 15723-15728.	1.5	6
16	Direct Evidence of Surface Charges in n-Type Al-Doped ZnO. Journal of Physical Chemistry C, 2018, 122, 18596-18602.	1.5	23
17	Poly[2,5-bis(3-dodecylthiophen-2-yl)thieno[3,2-b]thiophene] Oligomer Single-Crystal Nanowires from Supercritical Solution and Their Anisotropic Exciton Dynamics. Journal of Physical Chemistry Letters, 2017, 8, 2984-2989.	2.1	2
18	Disentangling â€œBrightâ€•and â€œDarkâ€•Interactions in Ordered Assemblies of Organic Semiconductors. Nano Letters, 2017, 17, 6949-6953.	4.5	5

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19	Role of Ionic Functional Groups on Ion Transport at Perovskite Interfaces. Advanced Energy Materials, 2017, 7, 1701235.	10.2	37
20	Tetrathiafulvalene-containing polymers for simultaneous non-covalent modification and electronic modulation of MoS₂ nanomaterials. Chemical Science, 2016, 7, 4698-4705.	3.7	34
21	A Polymer Hole Extraction Layer for Inverted Perovskite Solar Cells from Aqueous Solutions. Advanced Energy Materials, 2016, 6, 1600664.	10.2	56
22	Fabrication of Robust Protein Films Using Nanoimprint Lithography. Advanced Materials, 2015, 27, 6251-6255.	11.1	29
23	Carpenterâ€™s Rule Folding in Rigidâ€“Flexible Block Copolymers with Conjugation-Interrupting, Flexible Tethers Between Oligophenylenevinylenes. Journal of Physical Chemistry A, 2015, 119, 8010-8020.	1.1	11
24	Work Function Modification in P3HT H/J Aggregate Nanostructures Revealed by Kelvin Probe Force Microscopy and Photoluminescence Imaging. ACS Nano, 2015, 9, 7105-7112.	7.3	48
25	Effect of Polymer Chain Folding on the Transition from H- to J-Aggregate Behavior in P3HT Nanofibers. Journal of Physical Chemistry C, 2014, 118, 2229-2235.	1.5	91
26	Morphology-Dependent Electronic Properties in Cross-Linked (P3HT-b-P3MT) Block Copolymer Nanostructures. ACS Nano, 2014, 8, 8344-8349.	7.3	23
27	Probing Inter- and Intra-chain Excitonic Coupling in Crystalline Polythiophene Nanofibers and Nanoparticles. Materials Research Society Symposia Proceedings, 2013, 1500, 1.	0.1	0
28	Time- and Polarization-Resolved Photoluminescence Decay from Isolated Polythiophene (P3HT) Nanofibers. Journal of Physical Chemistry C, 2012, 116, 23803-23811.	1.5	27
29	Probing Inter- and Intrachain Exciton Coupling in Isolated Poly(3-hexylthiophene) Nanofibers: Effect of Solvation and Regioregularity. Journal of Physical Chemistry Letters, 2012, 3, 1674-1679.	2.1	55
30	Electrostatic Force Microscopy and Spectral Studies of Electron Attachment to Single Quantum Dots on Indium Tin Oxide Substrates. Journal of Physical Chemistry C, 2012, 116, 15847-15853.	1.5	23
31	Optical probes of chain packing structure and exciton dynamics in polythiophene films, composites, and nanostructures. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 1121-1129.	2.4	29
32	Time- and Polarization-Resolved Photoluminescence of Individual Semicrystalline Polythiophene (P3HT) Nanoparticles. Journal of Physical Chemistry Letters, 2011, 2, 2089-2093.	2.1	46
33	Direct patterning of quantum dot nanostructures via electron beam lithography. Journal of Materials Chemistry, 2011, 21, 16859.	6.7	41
34	Effect of Side Chains on Charge Transfer in Quaterthiophene-Naphthalene Diimide Based Donor-Bridge-Acceptor Dyads. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 986-993.	1.2	9
35	Dissymmetries in fluorescence excitation and emission from single chiral molecules. Chirality, 2009, 21, E265-76.	1.3	21
36	Comment on â€œLimits on Fluorescence Detected Circular Dichroism of Single Helicene Moleculesâ€. Journal of Physical Chemistry A, 2009, 113, 9757-9758.	1.1	13

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37	Singleâ€molecule chiroptical spectroscopy: Fluorescence excitation of individual helicene molecules in polymerâ€supported thinâ€films. Chirality, 2008, 20, 1039-1046.	1.3	41
38	Single-Molecule Studies of a Model Fluorenone. ChemPhysChem, 2007, 8, 1481-1486.	1.0	21
39	Far-field modulation of fluorescence decay rates in pairs of oriented semiconducting polymer nanostructures. Physical Review B, 2005, 71, .	1.1	17
40	Using Order and Nanoconfinement to Tailor Semiconducting Polymers: A Combined Experimental and Multiscale Computational Study. , 0, , 47-72.		0