

Jonathan C Barnes

List of Publications by Year in descending order

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49
papers

4,895
citations

159585

30
h-index

189892

50
g-index

56
all docs

56
docs citations

56
times ranked

7052
citing authors

#	ARTICLE	IF	CITATIONS
1	Mesoporous silica nanoparticles in biomedical applications. <i>Chemical Society Reviews</i> , 2012, 41, 2590.	38.1	1,667
2	Iterative exponential growth of stereo- and sequence-controlled polymers. <i>Nature Chemistry</i> , 2015, 7, 810-815.	13.6	296
3	ExBox: A Polycyclic Aromatic Hydrocarbon Scavenger. <i>Journal of the American Chemical Society</i> , 2013, 135, 183-192.	13.7	275
4	Metal-Organic Framework Thin Films Composed of Free-Standing Acicular Nanorods Exhibiting Reversible Electrochromism. <i>Chemistry of Materials</i> , 2013, 25, 5012-5017.	6.7	242
5	Supramolecular Explorations: Inhibiting the Extension of Extended Cationic Cyclophanes. <i>Accounts of Chemical Research</i> , 2016, 49, 262-273.	15.6	193
6	A Radically Configurable Six-State Compound. <i>Science</i> , 2013, 339, 429-433.	12.6	158
7	Induced-fit catalysis of corannulene bowl-to-bowl inversion. <i>Nature Chemistry</i> , 2014, 6, 222-228.	13.6	149
8	Organic Switches for Surfaces and Devices. <i>Advanced Materials</i> , 2013, 25, 331-348.	21.0	142
9	Ultrafast Conformational Dynamics of Electron Transfer in ExBox ⁴⁺ , Perylene. <i>Journal of Physical Chemistry A</i> , 2013, 117, 12438-12448.	2.5	137
10	ExCage. <i>Journal of the American Chemical Society</i> , 2014, 136, 10669-10682.	13.7	132
11	Solution-Phase Mechanistic Study and Solid-State Structure of a Tris(bipyridinium radical cation) Inclusion Complex. <i>Journal of the American Chemical Society</i> , 2012, 134, 3061-3072.	13.7	123
12	A reversible light-operated nanovalve on mesoporous silica nanoparticles. <i>Nanoscale</i> , 2014, 6, 3335.	5.6	122
13	Iterative Exponential Growth Synthesis and Assembly of Uniform Diblock Copolymers. <i>Journal of the American Chemical Society</i> , 2016, 138, 9369-9372.	13.7	107
14	Ex2Box: Interdependent Modes of Binding in a Two-Nanometer-Long Synthetic Receptor. <i>Journal of the American Chemical Society</i> , 2013, 135, 12736-12746.	13.7	92
15	Mechanical Bond-Induced Radical Stabilization. <i>Journal of the American Chemical Society</i> , 2013, 135, 456-467.	13.7	89
16	Synthesis of Ex ⁿ Box Cyclophanes. <i>Journal of Organic Chemistry</i> , 2013, 78, 11962-11969.	3.2	85
17	Redox-Responsive Artificial Molecular Muscles: Reversible Radical-Based Self-Assembly for Actuating Hydrogels. <i>Chemistry of Materials</i> , 2017, 29, 9498-9508.	6.7	75
18	Controlling Switching in Bistable [2]Catenanes by Combining Donor-Acceptor and Radical-Radical Interactions. <i>Journal of the American Chemical Society</i> , 2012, 134, 11709-11720.	13.7	70

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19	Semiconducting Single Crystals Comprising Segregated Arrays of Complexes of C ₆₀ . Journal of the American Chemical Society, 2015, 137, 2392-2399.	13.7	59
20	A Semiconducting Organic Radical Cationic Host-Guest Complex. ACS Nano, 2012, 6, 9964-9971.	14.6	47
21	Mechanically induced intramolecular electron transfer in a mixed-valence molecular shuttle. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11546-11551.	7.1	46
22	Using an RNAi Signature Assay To Guide the Design of Three-Drug-Conjugated Nanoparticles with Validated Mechanisms, In Vivo Efficacy, and Low Toxicity. Journal of the American Chemical Society, 2016, 138, 12494-12501.	13.7	44
23	Bottlebrush polymers with flexible enantiomeric side chains display differential biological properties. Nature Chemistry, 2022, 14, 85-93.	13.6	43
24	Mechanical-Bond-Protected, Air-Stable Radicals. Journal of the American Chemical Society, 2017, 139, 12704-12709.	13.7	36
25	Electron Transfer and Multi-Electron Accumulation in ExBox ⁴⁺ . Angewandte Chemie - International Edition, 2014, 53, 5371-5375.	13.8	35
26	Reversible Hydrogel Photopatterning: Spatial and Temporal Control over Gel Mechanical Properties Using Visible Light Photoredox Catalysis. ACS Applied Materials & Interfaces, 2019, 11, 24627-24638.	8.0	35
27	An ExBox [2]catenane. Chemical Science, 2014, 5, 2724.	7.4	33
28	Solid-State Characterization and Photoinduced Intramolecular Electron Transfer in a Nanoconfined Octacationic Homo[2]Catenane. Journal of the American Chemical Society, 2014, 136, 10569-10572.	13.7	32
29	Measurement of the ground-state distributions in bistable mechanically interlocked molecules using slow scan rate cyclic voltammetry. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20416-20421.	7.1	30
30	Influence of Constitution and Charge on Radical Pairing Interactions in Tris-radical Tricationic Complexes. Journal of the American Chemical Society, 2016, 138, 8288-8300.	13.7	29
31	Catenation through a Combination of Radical Templation and Ring-Closing Metathesis. Journal of the American Chemical Society, 2015, 137, 15640-15643.	13.7	28
32	Photoredox-Based Actuation of an Artificial Molecular Muscle. Macromolecular Rapid Communications, 2018, 39, e1700781.	3.9	27
33	Relative contractile motion of the rings in a switchable palindromic [3]rotaxane in aqueous solution driven by radical-pairing interactions. Organic and Biomolecular Chemistry, 2014, 12, 6089-6093.	2.8	25
34	Photoinduced Electron Transfer within a Zinc Porphyrin-Cyclobis(paraquat- <i>p</i> -phenylene) Donor-Acceptor Dyad. Chemistry - A European Journal, 2014, 20, 14690-14697.	3.3	21
35	Formation of ring-in-ring complexes between crown ethers and rigid TVBox ⁸⁺ . Chemical Communications, 2015, 51, 1432-1435.	4.1	19
36	Dynamic, multimodal hydrogel actuators using porphyrin-based visible light photoredox catalysis in a thermoresponsive polymer network. Chemical Science, 2020, 11, 10910-10920.	7.4	18

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37	Cooperative Reactivity in an Extended-Viologen-Based Cyclophane. <i>Journal of the American Chemical Society</i> , 2016, 138, 3667-3670.	13.7	16
38	Fluorescence Enhancement of a Porphyrin-Viologen Dyad by Pseudorotaxane Formation with Cucurbit[7]uril. <i>European Journal of Organic Chemistry</i> , 2014, 2014, 2873-2877.	2.4	15
39	One-Pot Synthesis of a Linear [4]Catenate Using Orthogonal Metal Templation and Ring-Closing Metathesis. <i>Inorganic Chemistry</i> , 2020, 59, 10450-10460.	4.0	13
40	Profile of Jean-Pierre Sauvage, Sir J. Fraser Stoddart, and Bernard L. Feringa, 2016 Nobel Laureates in Chemistry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 620-625.	7.1	12
41	Synthesis, self-assembly, and photomechanical actuator performance of a sequence-defined polyviologen crosslinker. <i>Supramolecular Chemistry</i> , 2019, 31, 523-531.	1.2	10
42	Diblock brush-arm star copolymers via a core-first/graft-from approach using β -cyclodextrin and ROMP: a modular platform for drug delivery. <i>Polymer Chemistry</i> , 2020, 11, 541-550.	3.9	10
43	Metalation/Demetallation as a Postgelation Strategy To Tune the Mechanical Properties of Catenane-Crosslinked Gels. <i>Journal of the American Chemical Society</i> , 2022, 144, 9990-9996.	13.7	8
44	Precise patterning driven by droplets. <i>Nature Chemistry</i> , 2020, 12, 328-330.	13.6	5
45	Programming origami-like soft actuators using visible light. <i>Matter</i> , 2021, 4, 1449-1452.	10.0	2
46	Iterative step-growth synthesis and degradation of unimolecular polyviologens under mild conditions. <i>Chemical Communications</i> , 2022, 58, 1358-1361.	4.1	2
47	Electrostatic loading and photoredox-based release of molecular cargo from oligoviologen-crosslinked microparticles. <i>Polymer Chemistry</i> , 2022, 13, 2115-2122.	3.9	2
48	Photoinduced Electron Transfer and Changes in Surface Free Energy in Polythiophene-Polyviologen Bilayered Thin Films. <i>ACS Polymers Au</i> , 0, , .	4.1	2
49	Reading and writing data by using self-immolative, sequence-defined oligourethanes. <i>CheM</i> , 2021, 7, 1417-1419.	11.7	1