

Akihiro Shimizu

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

75
papers

5,329
citations

41
h-index

73
g-index

100
ext. papers

5,912
ext. citations

9.2
avg, IF

5.82
L-index

#	Paper	IF	Citations
75	Polymer-bound pyrene-4,5,9,10-tetraone for fast-charge and -discharge lithium-ion batteries with high capacity. <i>Journal of the American Chemical Society</i> , 2012 , 134, 19694-700	16.4	359
74	Electrogenerated Cationic Reactive Intermediates: The Pool Method and Further Advances. <i>Chemical Reviews</i> , 2018 , 118, 4702-4730	68.1	312
73	Synthesis, intermolecular interaction, and semiconductive behavior of a delocalized singlet biradical hydrocarbon. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 6564-8	16.4	276
72	Synthesis and characterization of teranthene: a singlet biradical polycyclic aromatic hydrocarbon having Kekulé structures. <i>Journal of the American Chemical Society</i> , 2010 , 132, 11021-3	16.4	249
71	Strong two-photon absorption of singlet diradical hydrocarbons. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 3544-6	16.4	241
70	Indeno[2,1-a]fluorene: an air-stable ortho-quinodimethane derivative. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 6906-10	16.4	194
69	Electrochemical C-H amination: synthesis of aromatic primary amines via N-arylpyridinium ions. <i>Journal of the American Chemical Society</i> , 2013 , 135, 5000-3	16.4	191
68	Indeno[2,1-b]fluorene: a 20- π -electron hydrocarbon with very low-energy light absorption. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 6076-9	16.4	189
67	Singlet Diradical Character from Experiment. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 937-940	6.4	154
66	Metal- and chemical-oxidant-free C-H/C-H cross-coupling of aromatic compounds: the use of radical-cation pools. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 7259-62	16.4	153
65	The Stabilized Cation Pool Method: Metal- and Oxidant-Free Benzylic C-H/Aromatic C-H Cross-Coupling. <i>Journal of the American Chemical Society</i> , 2016 , 138, 8400-3	16.4	150
64	Direct C-N coupling of imidazoles with aromatic and benzylic compounds via Electrooxidative C-H functionalization. <i>Journal of the American Chemical Society</i> , 2014 , 136, 4496-9	16.4	144
63	Alternating covalent bonding interactions in a one-dimensional chain of a phenalenyl-based singlet biradical molecule having Kekulé structures. <i>Journal of the American Chemical Society</i> , 2010 , 132, 14421-8	16.4	142
62	Singlet biradical character of phenalenyl-based Kekulé hydrocarbon with naphthoquinoid structure. <i>Organic Letters</i> , 2007 , 9, 81-4	6.2	138
61	Resonance balance shift in stacks of delocalized singlet biradicals. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 5482-6	16.4	131
60	Halogen and chalcogen cation pools stabilized by DMSO. Versatile reagents for alkene difunctionalization. <i>Journal of the American Chemical Society</i> , 2013 , 135, 16070-3	16.4	121
59	Introduction of two lithiooxycarbonyl groups enhances cyclability of lithium batteries with organic cathode materials. <i>Journal of Power Sources</i> , 2014 , 260, 211-217	8.9	114

58	Heterocyclization Approach for Electrooxidative Coupling of Functional Primary Alkylamines with Aromatics. <i>Journal of the American Chemical Society</i> , 2015 , 137, 9816-9	16.4	109
57	Ambipolar organic field-effect transistors based on a low band gap semiconductor with balanced hole and electron mobilities. <i>Applied Physics Letters</i> , 2007 , 91, 043506	3.4	108
56	Aromaticity and π -bond covalency: prominent intermolecular covalent bonding interaction of a Kekulé hydrocarbon with very significant singlet biradical character. <i>Chemical Communications</i> , 2012 , 48, 5629-31	5.8	100
55	Theoretical study of third-order nonlinear optical properties in square nanographenes with open-shell singlet ground states. <i>Chemical Physics Letters</i> , 2008 , 467, 120-125	2.5	93
54	Signature of multiradical character in second hyperpolarizabilities of rectangular graphene nanoflakes. <i>Chemical Physics Letters</i> , 2010 , 489, 212-218	2.5	88
53	Synthesis, Intermolecular Interaction, and Semiconductive Behavior of a Delocalized Singlet Biradical Hydrocarbon. <i>Angewandte Chemie</i> , 2005 , 117, 6722-6726	3.6	85
52	Non-alternant non-benzenoid kekulenes: the birth of a new kekulene family. <i>Chemical Society Reviews</i> , 2015 , 44, 6560-77	58.5	83
51	Automated solution-phase synthesis of oligosaccharides via iterative electrochemical assembly of thioglycosides. <i>Organic Letters</i> , 2013 , 15, 4520-3	6.2	83
50	Tetracyclopenta[def,jkl,pqr,vwx]tetraphenylene: a potential tetraradicaloid hydrocarbon. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 2090-4	16.4	77
49	Synthesis, structure, and photophysical properties of dibenzo[de,mn]naphthalenes. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 7059-62	16.4	77
48	Indeno[2,1-b]fluorene: A 20- π -Electron Hydrocarbon with Very Low-Energy Light Absorption. <i>Angewandte Chemie</i> , 2013 , 125, 6192-6195	3.6	71
47	Benz[c]indeno[2,1-a]fluorene: a 2,3-naphthoquinodimethane incorporated into an indenofluorene frame. <i>Chemical Science</i> , 2014 , 5, 163-168	9.4	67
46	Synthesis, crystal structure, and physical properties of sterically unprotected hydrocarbon radicals. <i>Journal of the American Chemical Society</i> , 2011 , 133, 14240-3	16.4	67
45	Electrochemical intramolecular C-H amination: synthesis of benzoxazoles and benzothiazoles. <i>Chemistry - A European Journal</i> , 2015 , 21, 3211-4	4.8	64
44	Metal- and Chemical-Oxidant-Free C ⁺ H/C ⁻ H Cross-Coupling of Aromatic Compounds: The Use of Radical-Cation Pools. <i>Angewandte Chemie</i> , 2012 , 124, 7371-7374	3.6	64
43	Indeno[2,1-a]fluorene: An Air-Stable ortho-Quinodimethane Derivative. <i>Angewandte Chemie</i> , 2011 , 123, 7038-7042	3.6	59
42	Metal-Free Benzylic C-H Amination via Electrochemically Generated Benzylaminosulfonium Ions. <i>Chemistry - A European Journal</i> , 2017 , 23, 61-64	4.8	54
41	Theoretical consideration of singlet open-shell character of polyperiacenes using Clar's aromatic sextet valence bond model and quantum chemical calculations 2012 ,		52

40	New Approach to 1,4-Benzoxazin-3-ones by Electrochemical C-H Amination. <i>Chemistry - A European Journal</i> , 2017 , 23, 12096-12099	4.8	47
39	Automated electrochemical assembly of the protected potential TMG-chitotriomycin precursor based on rational optimization of the carbohydrate building block. <i>Organic Letters</i> , 2015 , 17, 1525-8	6.2	47
38	Nitrogen-Containing Polycyclic Quinones as Cathode Materials for Lithium-ion Batteries with Increased Voltage. <i>Energy Technology</i> , 2014 , 2, 155-158	3.5	47
37	Third-order nonlinear optical properties of trigonal, rhombic and bow-tie graphene nanoflakes with strong structural dependence of diradical character. <i>Chemical Physics Letters</i> , 2009 , 480, 278-283	2.5	47
36	Strong Two-Photon Absorption of Singlet Diradical Hydrocarbons. <i>Angewandte Chemie</i> , 2007 , 119, 3614-3616	3.6	46
35	Resonance Balance Shift in Stacks of Delocalized Singlet Biradicals. <i>Angewandte Chemie</i> , 2009 , 121, 5590-5594	3.5	43
34	Fluoreno[2,3-b]fluorene vs Indeno[2,1-b]fluorene: Unusual Relationship between the Number of π Electrons and Excitation Energy in m-Quinodimethane-Type Singlet Diradicaloids. <i>Journal of Organic Chemistry</i> , 2017 , 82, 1380-1388	4.2	39
33	Indenofluorene congeners: Biradicaloids and beyond. <i>Pure and Applied Chemistry</i> , 2014 , 86, 517-528	2.1	31
32	Liquid Quinones for Solvent-Free Redox Flow Batteries. <i>Advanced Materials</i> , 2017 , 29, 1606592	2.4	29
31	Reaction Integration Using Electrogenerated Cationic Intermediates. <i>Bulletin of the Chemical Society of Japan</i> , 2015 , 88, 763-775	5.1	28
30	Tetracyclopenta[def,jkl,pqr,vwx]tetraphenylene: A Potential Tetraradicaloid Hydrocarbon. <i>Angewandte Chemie</i> , 2015 , 127, 2118-2122	3.6	26
29	Photostability enhancement of the pentacene derivative having two nitronyl nitroxide radical substituents. <i>Chemical Communications</i> , 2016 , 52, 2889-92	5.8	24
28	Experimental consideration of covalent-bonding interactions in stacks of singlet biradicals having Kekulé structures. <i>Journal of Physical Organic Chemistry</i> , 2011 , 24, 876-882	2.1	24
27	Synthesis, Structure, and Photophysical Properties of Dibenzo[de,mn]naphthalenes. <i>Angewandte Chemie</i> , 2010 , 122, 7213-7216	3.6	23
26	Switching the reaction pathways of electrochemically generated haloalkoxysulfonium ions - synthesis of halohydrins and epoxides. <i>Beilstein Journal of Organic Chemistry</i> , 2015 , 11, 242-8	2.5	22
25	Synthesis and physical properties of zethrene derivatives bearing donor/acceptor substituents at 7,14-positions. <i>Organic and Biomolecular Chemistry</i> , 2013 , 11, 8256-61	3.9	15
24	Electronic structure of delocalized singlet biradical Ph ₂ -IDPL solid film. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 12570-7	3.6	14
23	Scanning Tunneling Microscopy Study of a Phenalenyl-Based Singlet Biradical on Graphite. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 1515-1519	3.8	14

22	Azoniadibenzo[a,j]phenalenide: A Polycyclic Zwitterion with Singlet Biradical Character. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 6415-6419	16.4	10
21	Oxidative cyclodimerization after tandem cyclization of dehydrobenzo[14]annulenes induced by alkyllithium. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 4184-8	16.4	10
20	PPV Polymerization through the Gilch Route: Diradical Character of Monomers. <i>Chemistry - A European Journal</i> , 2015 , 21, 19176-85	4.8	8
19	Redox active dendronized polystyrenes equipped with peripheral triarylamines. <i>Beilstein Journal of Organic Chemistry</i> , 2014 , 10, 3097-103	2.5	8
18	Synthesis and Isolation of a Kinetically Stabilized Crystalline Triangulene. <i>Journal of the American Chemical Society</i> , 2021 , 143, 19599-19605	16.4	8
17	Generation, Characterization, and Reactions of Thionium Ions Based on the Indirect Cation Pool Method. <i>Bulletin of the Chemical Society of Japan</i> , 2016 , 89, 61-66	5.1	7
16	Transformation of octadehydrodibenzo[12]annulene to benzonaphthopentalene by successive nucleophilic and electrophilic transannular cyclizations. <i>Tetrahedron</i> , 2014 , 70, 8474-8479	2.4	7
15	HOMO-LUMO Energy-Gap Tuning of π Conjugated Zwitterions Composed of Electron-Donating Anion and Electron-Accepting Cation. <i>Journal of Organic Chemistry</i> , 2021 , 86, 770-781	4.2	7
14	Metal- and Oxidant-Free Alkenyl C-H/Aromatic C-H Cross-Coupling Using Electrochemically Generated Iodosulfonium Ions. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 12891-12895	16.4	7
13	Excited-State Dynamics of Pentacene Derivatives with Stable Radical Substituents. <i>Angewandte Chemie</i> , 2014 , 126, 6833-6837	3.6	6
12	Metal-Free Twofold Electrochemical C-H Amination of Activated Arenes: Application to Medicinally Relevant Precursor Synthesis. <i>Chemistry - A European Journal</i> , 2020 , 26, 17574-17580	4.8	6
11	Chemistry of Phenalenyl-based Delocalized Singlet Biradicals. <i>Yuki Gosei Kagaku Kyokaiishi/Journal of Synthetic Organic Chemistry</i> , 2010 , 68, 64-74	0.2	5
10	Oxidative Cyclodimerization After Tandem Cyclization of Dehydrobenzo[14]annulenes Induced by Alkyllithium. <i>Angewandte Chemie</i> , 2013 , 125, 4278-4282	3.6	4
9	Metal- and Oxidant-Free Alkenyl C-H/Aromatic C-H Cross-Coupling Using Electrochemically Generated Iodosulfonium Ions. <i>Angewandte Chemie</i> , 2018 , 130, 13073-13077	3.6	3
8	Azoniadibenzo[a,j]phenalenide: A Polycyclic Zwitterion with Singlet Biradical Character. <i>Angewandte Chemie</i> , 2019 , 131, 6481-6485	3.6	2
7	Innenföktitelbild: Excited-State Dynamics of Pentacene Derivatives with Stable Radical Substituents (Angew. Chem. 26/2014). <i>Angewandte Chemie</i> , 2014 , 126, 6945-6945	3.6	1
6	Development of Electroorganic Reactions Utilizing Stabilized Reactive Species and Its Application to Organic Energy Storage Materials. <i>Electrochemistry</i> , 2018 , 86, 298-302	1.2	1
5	The Recent Developments of Electrochemical Oxidation 2019 , 409-437		

- 4 Innentitelbild: Tetracyclopenta[def,jkl,pqr,vwx]tetraphenylene: A Potential Tetraradicaloid Hydrocarbon (Angew. Chem. 7/2015). *Angewandte Chemie*, **2015**, 127, 2000-2000 3.6
- 3 Reaktitelbild: Indeno[2,1-b]fluorene: A 20- π -Electron Hydrocarbon with Very Low-Energy Light Absorption (Angew. Chem. 23/2013). *Angewandte Chemie*, **2013**, 125, 6228-6228 3.6
- 2 Innentitelbild: Oxidative Cyclodimerization After Tandem Cyclization of Dehydrobenzo[14]annulenes Induced by Alkylolithium (Angew. Chem. 15/2013). *Angewandte Chemie*, **2013**, 125, 4134-4134 3.6
- 1 Singlet Open-Shell Character of Polyperiacenes **2011**, 45-57