

Peiyuan Yu

List of Publications by Year in descending order

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64
papers

2,404
citations

172207

29
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223531

46
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71
all docs

71
docs citations

71
times ranked

1926
citing authors

#	ARTICLE	IF	CITATIONS
1	Asymmetric phosphoric acid-catalyzed four-component Ugi reaction. <i>Science</i> , 2018, 361, .	6.0	150
2	Rational design, enantioselective synthesis and catalytic applications of axially chiral EBINOLs. <i>Nature Catalysis</i> , 2019, 2, 504-513.	16.1	145
3	Catalytic Asymmetric [4+2] Annulation Initiated by an Aza-Currier Reaction: Facile Entry to Highly Functionalized Tetrahydropyridines. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 7825-7829.	7.2	104
4	Streamlined Construction of Silicon-Stereogenic Silanes by Tandem Enantioselective C-H Silylation/Alkene Hydrosilylation. <i>Journal of the American Chemical Society</i> , 2020, 142, 13459-13468.	6.6	104
5	Biochemical Characterization of a Eukaryotic Decalin-Forming Diels-Alderase. <i>Journal of the American Chemical Society</i> , 2016, 138, 15837-15840.	6.6	98
6	Organocatalytic atroposelective construction of axially chiral arylquinones. <i>Nature Communications</i> , 2019, 10, 4268.	5.8	92
7	Mechanisms and Origins of Periselectivity of the Ambimodal [6 + 4] Cycloadditions of Tropone to Dimethylfulvene. <i>Journal of the American Chemical Society</i> , 2017, 139, 8251-8258.	6.6	87
8	DFT-Guided Phosphoric-Acid-Catalyzed Atroposelective Arene Functionalization of Nitrosonaphthalene. <i>Chem</i> , 2020, 6, 2046-2059.	5.8	83
9	Asymmetric Construction of Axially Chiral 2-Arylpyrroles by Chirality Transfer of Atropisomeric Alkenes. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 13443-13447.	7.2	75
10	Transannular [6 + 4] and Ambimodal Cycloaddition in the Biosynthesis of Heronamide A. <i>Journal of the American Chemical Society</i> , 2015, 137, 13518-13523.	6.6	72
11	Bifunctional Phosphonium Salt Directed Enantioselective Formal [4 + 1] Annulation of Hydroxyl-Substituted <i>para</i> -Quinone Methides with β -Halogenated Ketones. <i>Organic Letters</i> , 2019, 21, 7298-7302.	2.4	72
12	Dual-Ligand-Enabled Ir(III)-Catalyzed Enantioselective C-H Amidation for the Synthesis of Chiral Sulfoxides. <i>ACS Catalysis</i> , 2020, 10, 7207-7215.	5.5	65
13	Relationships between Product Ratios in Ambimodal Pericyclic Reactions and Bond Lengths in Transition Structures. <i>Journal of the American Chemical Society</i> , 2018, 140, 3061-3067.	6.6	63
14	Distortion-Controlled Reactivity and Molecular Dynamics of Dehydro-Diels-Alder Reactions. <i>Journal of the American Chemical Society</i> , 2016, 138, 8247-8252.	6.6	57
15	Influence of water and enzyme SpnF on the dynamics and energetics of the ambimodal [6+4]/[4+2] cycloaddition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E848-E855.	3.3	57
16	Organocatalytic Asymmetric Synthesis of Protected β,γ -Diamino Acids. <i>Advanced Synthesis and Catalysis</i> , 2009, 351, 2797-2800.	2.1	53
17	Why Alkynyl Substituents Dramatically Accelerate Hexadehydro-Diels-Alder (HDDA) Reactions: Stepwise Mechanisms of HDDA Cycloadditions. <i>Organic Letters</i> , 2014, 16, 5702-5705.	2.4	51
18	Atroposelective Construction of Arylindoles by Chiral Phosphoric Acid-Catalyzed Cross-Coupling of Indoles and Quinones. <i>Organic Letters</i> , 2019, 21, 6000-6004.	2.4	49

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19	Phenalenone Polyketide Cyclization Catalyzed by Fungal Polyketide Synthase and Flavin-Dependent Monooxygenase. <i>Journal of the American Chemical Society</i> , 2016, 138, 4249-4259.	6.6	46
20	Molecular Dynamics of Dimethyldioxirane C-H Oxidation. <i>Journal of the American Chemical Society</i> , 2016, 138, 4237-4242.	6.6	46
21	Diazo Esters as Dienophiles in Intramolecular (4 + 2) Cycloadditions: Computational Explorations of Mechanism. <i>Journal of the American Chemical Society</i> , 2017, 139, 2766-2770.	6.6	46
22	Glutathione-Depleting Organic Metal Adjuvants for Effective NIR Photothermal Immunotherapy. <i>Advanced Materials</i> , 2022, 34, e2201706.	11.1	46
23	Spatiotemporal profiling of cytosolic signaling complexes in living cells by selective proximity proteomics. <i>Nature Communications</i> , 2021, 12, 71.	5.8	43
24	Organocatalytic [6+4] Cycloadditions via Zwitterionic Intermediates: Chemo-, Regio-, and Stereoselectivities. <i>Journal of the American Chemical Society</i> , 2018, 140, 13726-13735.	6.6	37
25	Chiral Brønsted Acid from Chiral Phosphoric Acid Boron Complex and Water: Asymmetric Reduction of Indoles. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 3294-3299.	7.2	37
26	Organocatalytic enantioselective dearomatization of thiophenes by 1,10-conjugate addition of indole imine methides. <i>Nature Communications</i> , 2021, 12, 4881.	5.8	36
27	Computational Exploration of Concerted and Zwitterionic Mechanisms of Diels-Alder Reactions between 1,2,3-Triazines and Enamines and Acceleration by Hydrogen-Bonding Solvents. <i>Journal of the American Chemical Society</i> , 2017, 139, 18213-18221.	6.6	35
28	Engineered non-covalent π - π interactions as key elements for chiral recognition. <i>Nature Communications</i> , 2022, 13, .	5.8	34
29	Asymmetric Construction of Axially Chiral 2-Arylpyrroles by Chirality Transfer of Atropisomeric Alkenes. <i>Angewandte Chemie</i> , 2019, 131, 13577-13581.	1.6	30
30	Stereochemical Control via Chirality Pairing: Stereodivergent Syntheses of Enantioenriched Homoallylic Alcohols. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 24096-24106.	7.2	28
31	Insight into Regioselective Control in Aerobic Oxidative C-H/C-H Coupling for C3-Arylation of Benzothiophenes: Toward Structurally Nontraditional OLED Materials. <i>Journal of the American Chemical Society</i> , 2021, 143, 21066-21076.	6.6	28
32	Computational Design of Enhanced Enantioselectivity in Chiral Phosphoric Acid-Catalyzed Oxidative Desymmetrization of 1,3-Diol Acetals. <i>Journal of the American Chemical Society</i> , 2020, 142, 8506-8513.	6.6	27
33	Ambimodal Dipolar/Diels-Alder Cycloaddition Transition States Involving Proton Transfers. <i>Journal of the American Chemical Society</i> , 2018, 140, 18124-18131.	6.6	26
34	Catalytic Effects of Ammonium and Sulfonium Salts and External Electric Fields on Aza-Diels-Alder Reactions. <i>Journal of Organic Chemistry</i> , 2020, 85, 2618-2625.	1.7	23
35	Asymmetric synthesis of N-bridged [3.3.1] ring systems by phosphonium salt/Lewis acid relay catalysis. <i>Nature Communications</i> , 2022, 13, 357.	5.8	19
36	Chiral Phosphoric Acid Catalyzed Conversion of Epoxides into Thiiranes: Mechanism, Stereochemical Model, and New Catalyst Design. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	19

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37	Organocatalytic Enantioselective 1,10-Addition of Alkynyl Indole Imine Methides with Thiazolones: An Access to Axially Chiral Tetrasubstituted Allenes. <i>Organic Letters</i> , 2022, 24, 4914-4918.	2.4	19
38	Computational Investigation of the Mechanism of Diels-Alderase PyrI4. <i>Journal of the American Chemical Society</i> , 2020, 142, 20232-20239.	6.6	18
39	Pd-Catalyzed Dearomative Asymmetric Allylic Alkylation of Naphthols with Alkoxyallenes. <i>Journal of Organic Chemistry</i> , 2020, 85, 7896-7904.	1.7	17
40	Simultaneous Kinetic Resolution and Asymmetric Induction within a Borrowing Hydrogen Cascade Mediated by a Single Catalyst. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	17
41	Enantioselective Cu-catalyzed double hydroboration of alkynes to access chiral gem-diborylalkanes. <i>Nature Communications</i> , 2022, 13, .	5.8	17
42	Mechanisms and Origins of Selectivities of the Lewis Acid-Catalyzed Diels-Alder Reactions between Arylallenes and Acrylates. <i>Journal of Organic Chemistry</i> , 2017, 82, 6398-6402.	1.7	15
43	Intramolecular Diels-Alder Approaches to the Decalin Core of Verongidolide: The Origin of the exo-Selectivity, a DFT Analysis. <i>Journal of Organic Chemistry</i> , 2018, 83, 5975-5985.	1.7	15
44	Theoretical Study of Diastereoselective NHC-Catalyzed Cross-Benzoin Reactions between Furfural and <i>N</i> -Boc-Protected α -Amino Aldehydes. <i>Journal of Organic Chemistry</i> , 2019, 84, 13565-13571.	1.7	15
45	Construction of boron-stereogenic compounds via enantioselective Cu-catalyzed desymmetric B-H bond insertion reaction. <i>Nature Communications</i> , 2022, 13, 2624.	5.8	15
46	Origins of regioselectivity in 1,3-dipolar cycloadditions of nitrile oxides with alkynylboronates. <i>Bioorganic and Medicinal Chemistry</i> , 2016, 24, 4787-4790.	1.4	14
47	Dynamical Trajectory Study of the Transannular [6+4] and Ambimodal Cycloaddition in the Biosynthesis of Heronamides. <i>Journal of Organic Chemistry</i> , 2020, 85, 9440-9445.	1.7	14
48	A theoretical study of phosphorescent Cu(I) complexes with 2-(2'-quinolyl)imidazole and POP mixed ligands. <i>Organic Electronics</i> , 2017, 45, 9-19.	1.4	13
49	Transition-Metal-free Double-Insertive Coupling of Isocyanides with Arylboronic Acids Enabled Diarylmethanamines. <i>Cell Reports Physical Science</i> , 2020, 1, 100268.	2.8	13
50	Radical Anion Promoted Chemoselective Cleavage of Csp ² -S Bond Enables Formal Cross-Coupling of Aryl Methyl Sulfones with Alcohols. <i>Organic Letters</i> , 2021, 23, 5761-5765.	2.4	13
51	Organocatalytic discrimination of non-directing aryl and heteroaryl groups: enantioselective synthesis of bioactive indole-containing triarylmethanes. <i>Chemical Science</i> , 2022, 13, 5767-5773.	3.7	10
52	Origins of Stereoselectivity in Chiral Aminoalcohol Catalysis of Oxyallyl Cation-Indole Reactions. <i>Organic Letters</i> , 2017, 19, 5685-5688.	2.4	9
53	Chiral Brønsted Acid from Chiral Phosphoric Acid Boron Complex and Water: Asymmetric Reduction of Indoles. <i>Angewandte Chemie</i> , 2020, 132, 3320-3325.	1.6	8
54	Stereochemical Control via Chirality Pairing: Stereodivergent Syntheses of Enantioenriched Homoallylic Alcohols. <i>Angewandte Chemie</i> , 2021, 133, 24298-24308.	1.6	8

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55	Prediction of new phase 2D<i>C</i>_{2h}group III monochalcogenides with direct bandgaps and highly anisotropic carrier mobilities. Materials Advances, 2022, 3, 2213-2221.	2.6	7
56	Chiral Phosphoric Acid Catalyzed Conversion of Epoxides into Thiiranes: Mechanism, Stereochemical Model, and New Catalyst Design. Angewandte Chemie, 0, , .	1.6	6
57	Enhanced Thermochemical Heat Capacity of Liquids: Molecular to Macroscale Modeling. Nanoscale and Microscale Thermophysical Engineering, 2019, 23, 235-246.	1.4	4
58	Aqueous Diels-€Alder reactions for thermochemical storage and heat transfer fluids identified using density functional theory. Journal of Computational Chemistry, 2020, 41, 2137-2150.	1.5	4
59	Chiral<i>N</i>-triflylphosphoramidate-catalyzed asymmetric hydroamination of unactivated alkenes: a hetero-ene reaction mechanism. Organic Chemistry Frontiers, 2022, 9, 1649-1661.	2.3	4
60	Synthesis of 2-Ethenylcyclopropyl Aryl Ketones via Intramolecular S_N-2-like Displacement of an Ester. Organic Letters, 2016, 18, 5138-5141.	2.4	3
61	Isomeric Nonfullerene Acceptors: Planar Conformation Leading to a Higher Efficiency. ACS Applied Energy Materials, 2022, 5, 4556-4563.	2.5	3
62	Simultaneous Kinetic Resolution and Asymmetric Induction within a Borrowing Hydrogen Cascade Mediated by a Single Catalyst. Angewandte Chemie, 0, , .	1.6	2
63	Thermal fluids with high specific heat capacity through reversible Diels-Alder reactions. IScience, 2022, 25, 103540.	1.9	2
64	€-Facial Stereoselectivity in Acyl Nitroso Cycloadditions to 5,5-Unsymmetrically Substituted Cyclopentadienes: Computational Exploration of Origins of Selectivity and the Role of Substituent Conformations on Selectivity. Journal of Organic Chemistry, 2021, 86, 17082-17089.	1.7	1