

# Peiyuan Yu

## List of Publications by Year in descending order

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64  
papers

2,404  
citations

172457  
29  
h-index

223800  
46  
g-index

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, .  | 12.6 | 150       |
| 2  | Rational design, enantioselective synthesis and catalytic applications of axially chiral EBINOLs. <i>Nature Catalysis</i> , 2019, 2, 504-513.  | 34.4 | 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.               | 13.8 | 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.                          | 13.7 | 104       |
| 5  | Biochemical Characterization of a Eukaryotic Decalin-Forming Diels-Alderase. <i>Journal of the American Chemical Society</i> , 2016, 138, 15837-15840.   | 13.7 | 98        |
| 6  | Organocatalytic atroposelective construction of axially chiral arylquinones. <i>Nature Communications</i> , 2019, 10, 4268.  | 12.8 | 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.                                     | 13.7 | 87        |
| 8  | DFT-Guided Phosphoric-Acid-Catalyzed Atroposelective Arene Functionalization of Nitrosonaphthalene. <i>Chem</i> , 2020, 6, 2046-2059.  | 11.7 | 83        |
| 9  | Asymmetric Construction of Axially Chiral Arylpyrroles by Chirality Transfer of Atropisomeric Alkenes. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 13443-13447.   | 13.8 | 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.  | 13.7 | 72        |
| 11 | Bifunctional Phosphonium Salt Directed Enantioselective Formal [4 + 1] Annulation of Hydroxyl-Substituted para-Quinone Methides with 1-Halogenated Ketones. <i>Organic Letters</i> , 2019, 21, 7298-7302.                    | 4.6  | 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.   | 11.2 | 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.                                    | 13.7 | 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.  | 13.7 | 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. | 7.1  | 57        |
| 16 | Organocatalytic Asymmetric Synthesis of Protected 1,2-Diamino Acids. <i>Advanced Synthesis and Catalysis</i> , 2009, 351, 2797-2800.   | 4.3  | 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.   | 4.6  | 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.  | 4.6  | 49        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 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.  | 13.7 | 46        |
| 20 | Molecular Dynamics of Dimethyldioxirane C-H Oxidation. <i>Journal of the American Chemical Society</i> , 2016, 138, 4237-4242.  | 13.7 | 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.  | 13.7 | 46        |
| 22 | Glutathione-Depleting Organic Metal Adjuvants for Effective NIR Photothermal Immunotherapy. <i>Advanced Materials</i> , 2022, 34, e2201706.   | 21.0 | 46        |
| 23 | Spatiotemporal profiling of cytosolic signaling complexes in living cells by selective proximity proteomics. <i>Nature Communications</i> , 2021, 12, 71.   | 12.8 | 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.   | 13.7 | 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.  | 13.8 | 37        |
| 26 | Organocatalytic enantioselective dearomatization of thiophenes by 1,10-conjugate addition of indole imine methides. <i>Nature Communications</i> , 2021, 12, 4881.  | 12.8 | 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. | 13.7 | 35        |
| 28 | Engineered non-covalent $\pi$ - $\pi$ interactions as key elements for chiral recognition. <i>Nature Communications</i> , 2022, 13, .   | 12.8 | 34        |
| 29 | Asymmetric Construction of Axially Chiral 2-Arylpyrroles by Chirality Transfer of Atropisomeric Alkenes. <i>Angewandte Chemie</i> , 2019, 131, 13577-13581.   | 2.0  | 30        |
| 30 | Stereochemical Control via Chirality Pairing: Stereodivergent Syntheses of Enantioenriched Homoallylic Alcohols. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 24096-24106.  | 13.8 | 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.               | 13.7 | 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.   | 13.7 | 27        |
| 33 | Ambimodal Dipolar/Diels-Alder Cycloaddition Transition States Involving Proton Transfers. <i>Journal of the American Chemical Society</i> , 2018, 140, 18124-18131.   | 13.7 | 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.   | 3.2  | 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.  | 12.8 | 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, .  | 13.8 | 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.              | 4.6  | 19        |
| 38 | Computational Investigation of the Mechanism of Diels-Alderase PyrI4. <i>Journal of the American Chemical Society</i> , 2020, 142, 20232-20239.  | 13.7 | 18        |
| 39 | Pd-Catalyzed Dearomative Asymmetric Allylic Alkylation of Naphthols with Alkoxyallenes. <i>Journal of Organic Chemistry</i> , 2020, 85, 7896-7904.   | 3.2  | 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, .                         | 13.8 | 17        |
| 41 | Enantioselective Cu-catalyzed double hydroboration of alkynes to access chiral gem-diborylalkanes. <i>Nature Communications</i> , 2022, 13, .  | 12.8 | 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.                            | 3.2  | 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.                          | 3.2  | 15        |
| 44 | Theoretical Study of Diastereoselective NHC-Catalyzed Cross-Benzoin Reactions between Furfural and <i>N</i> -Boc-Protected $\alpha$ -Amino Aldehydes. <i>Journal of Organic Chemistry</i> , 2019, 84, 13565-13571. | 3.2  | 15        |
| 45 | Construction of boron-stereogenic compounds via enantioselective Cu-catalyzed desymmetric B-H bond insertion reaction. <i>Nature Communications</i> , 2022, 13, 2624.  | 12.8 | 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.  | 3.0  | 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.                                    | 3.2  | 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.  | 2.6  | 13        |
| 49 | Transition-Metal-free Double-Insertive Coupling of Isocyanides with Arylboronic Acids Enabled Diarylmethanamines. <i>Cell Reports Physical Science</i> , 2020, 1, 100268.  | 5.6  | 13        |
| 50 | Radical Anion Promoted Chemoselective Cleavage of Csp <sup>2</sup> -S Bond Enables Formal Cross-Coupling of Aryl Methyl Sulfones with Alcohols. <i>Organic Letters</i> , 2021, 23, 5761-5765.                      | 4.6  | 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.              | 7.4  | 10        |
| 52 | Origins of Stereoselectivity in Chiral Aminoalcohol Catalysis of Oxyallyl Cation-Indole Reactions. <i>Organic Letters</i> , 2017, 19, 5685-5688.   | 4.6  | 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.  | 2.0  | 8         |
| 54 | Stereochemical Control via Chirality Pairing: Stereodivergent Syntheses of Enantioenriched Homoallylic Alcohols. <i>Angewandte Chemie</i> , 2021, 133, 24298-24308.  | 2.0  | 8         |

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|----|--|-----|-----------|
| 55 | Prediction of new phase 2D<i>C</i><sub>2h</sub>group III monochalcogenides with direct bandgaps and highly anisotropic carrier mobilities. Materials Advances, 2022, 3, 2213-2221.   | 5.4 | 7         |
| 56 | Chiral Phosphoric Acid Catalyzed Conversion of Epoxides into Thiiranes: Mechanism, Stereochemical Model, and New Catalyst Design. Angewandte Chemie, 0, , .  | 2.0 | 6         |
| 57 | Enhanced Thermochemical Heat Capacity of Liquids: Molecular to Macroscale Modeling. Nanoscale and Microscale Thermophysical Engineering, 2019, 23, 235-246.  | 2.6 | 4         |
| 58 | Aqueous Diels-Ålder reactions for thermochemical storage and heat transfer fluids identified using density functional theory. Journal of Computational Chemistry, 2020, 41, 2137-2150.   | 3.3 | 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.  | 4.5 | 4         |
| 60 | Synthesis of 2-Ethenylcyclopropyl Aryl Ketones via Intramolecular S<sub>N</sub>2-like Displacement of an Ester. Organic Letters, 2016, 18, 5138-5141.  | 4.6 | 3         |
| 61 | Isomeric Nonfullerene Acceptors: Planar Conformation Leading to a Higher Efficiency. ACS Applied Energy Materials, 2022, 5, 4556-4563.   | 5.1 | 3         |
| 62 | Simultaneous Kinetic Resolution and Asymmetric Induction within a Borrowing Hydrogen Cascade Mediated by a Single Catalyst. Angewandte Chemie, 0, , .  | 2.0 | 2         |
| 63 | Thermal fluids with high specific heat capacity through reversible Diels-Alder reactions. IScience, 2022, 25, 103540.  | 4.1 | 2         |
| 64 | Ï€-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. | 3.2 | 1         |