

# Automated Quantum Mechanical Predictions of Enantioselective Asymmetric Hydrogenation

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Rational Optimization of Supramolecular Catalysts for the Rhodium-Catalyzed Asymmetric Hydrogenation Reaction. <i>Angewandte Chemie</i> , 2017, 129, 13236-13240.	1.6	6
2	Rational Optimization of Supramolecular Catalysts for the Rhodium-Catalyzed Asymmetric Hydrogenation Reaction. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13056-13060.	7.2	30
3	Enantioselectivity in CPA-catalyzed Friedel-Crafts reaction of indole and <i>N</i> -tosylimines: a challenge for guiding models. <i>Organic and Biomolecular Chemistry</i> , 2018, 16, 2225-2238.	1.5	11
4	The True Catalyst Revealed: The Intervention of Chiral Ca and Mg Phosphates in Brønsted Acid Promoted Asymmetric Mannich Reactions. <i>Journal of the American Chemical Society</i> , 2018, 140, 5412-5420.	6.6	21
5	Mechanistically Guided Design of Ligands That Significantly Improve the Efficiency of CuH-Catalyzed Hydroamination Reactions. <i>Journal of the American Chemical Society</i> , 2018, 140, 13976-13984.	6.6	101
6	Comparing quantitative prediction methods for the discovery of small-molecule chiral catalysts. <i>Nature Reviews Chemistry</i> , 2018, 2, 290-305.	13.8	100
7	Computationally Assisted Mechanistic Investigation and Development of Pd-Catalyzed Asymmetric Suzuki-Miyaura and Negishi Cross-Coupling Reactions for Tetra-ortho-Substituted Biaryl Synthesis. <i>ACS Catalysis</i> , 2018, 8, 10190-10209.	5.5	70
8	Rhodium-catalyzed asymmetric hydrogenation of $\beta^2$ -branched enamides for the synthesis of $\beta^2$ -stereogenic amines. <i>Chemical Communications</i> , 2018, 54, 6024-6027.	2.2	38
9	Expedited Screening of Active and Regioselective Catalysts for the Hydroformylation Reaction. <i>Helvetica Chimica Acta</i> , 2018, 101, e1800107.	1.0	19
10	AARON: An Automated Reaction Optimizer for New Catalysts. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 5249-5261.	2.3	103
11	Computational design of high-performance ligand for enantioselective Markovnikov hydroboration of aliphatic terminal alkenes. <i>Nature Communications</i> , 2018, 9, 2290.	5.8	64
12	Questions in natural products synthesis research that can (and cannot) be answered using computational chemistry. <i>Chemical Society Reviews</i> , 2018, 47, 7845-7850.	18.7	28
13	Origin of the Selectivity and Activity in the Rhodium-Catalyzed Asymmetric Hydrogenation Using Supramolecular Ligands. <i>ACS Catalysis</i> , 2019, 9, 7535-7547.	5.5	18
15	Conformational Effects on Physical-Organic Descriptors: The Case of Sterimol Steric Parameters. <i>ACS Catalysis</i> , 2019, 9, 2313-2323.	5.5	96
16	Activity-Based Screening of Homogeneous Catalysts through the Rapid Assessment of Theoretically Derived Turnover Frequencies. <i>ACS Catalysis</i> , 2019, 9, 5716-5725.	5.5	48
17	Catalytic Homogeneous Asymmetric Hydrogenation: Successes and Opportunities. <i>Organometallics</i> , 2019, 38, 47-65.	1.1	184
18	The importance of synthetic chemistry in the pharmaceutical industry. <i>Science</i> , 2019, 363, .	6.0	312
20	A Predictive Tool for Electrophilic Aromatic Substitutions Using Machine Learning. <i>Journal of Organic Chemistry</i> , 2019, 84, 4695-4703.	1.7	70

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21	Practical and efficient preparation of the chiral 4-bromotryptophan derivative by Rh-catalyzed hydrogenation. <i>Tetrahedron Letters</i> , 2020, 61, 151498.	0.7	2
22	Applications of Quantum Chemistry in Pharmaceutical Process Development: Current State and Opportunities. <i>Organic Process Research and Development</i> , 2020, 24, 1496-1507.	1.3	25
24	New Directions in the Modeling of Organometallic Reactions. <i>Topics in Organometallic Chemistry</i> , 2020, , .	0.7	1
25	Revealing the Strong Relationships between Ligand Conformers and Activation Barriers: A Case Study of Bisphosphine Reductive Elimination. <i>ACS Catalysis</i> , 2020, 10, 7136-7145.	5.5	25
26	Ligand Design for Asymmetric Catalysis: Combining Mechanistic and Chemoinformatics Approaches. <i>Topics in Organometallic Chemistry</i> , 2020, , 153-189.	0.7	1
27	Automated in Silico Design of Homogeneous Catalysts. <i>ACS Catalysis</i> , 2020, 10, 2354-2377.	5.5	119
28	<sc>QChASM</sc>: Quantum chemistry automation and structure manipulation. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2021, 11, e1510.	6.2	28
29	Scaffoldâ€Directed Face Selectivity Machineâ€Learned from Vectors of Nonâ€covalent Interactions. <i>Angewandte Chemie</i> , 2021, 133, 15358-15363.	1.6	7
30	Scaffoldâ€Directed Face Selectivity Machineâ€Learned from Vectors of Nonâ€covalent Interactions. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 15230-15235.	7.2	19
31	Computational Discovery of Transition-metal Complexes: From High-throughput Screening to Machine Learning. <i>Chemical Reviews</i> , 2021, 121, 9927-10000.	23.0	110
32	Automated Construction and Optimization Combined with Machine Learning to Generate Pt(II) Methane Câ€H Activation Transition States. <i>Topics in Catalysis</i> , 2022, 65, 312-324.	1.3	11
33	Automated exploration of the low-energy chemical space with fast quantum chemical methods. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 7169-7192.	1.3	966
34	Generating transition states of isomerization reactions with deep learning. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 23618-23626.	1.3	35
35	Computational insights into metal-catalyzed asymmetric hydrogenation. <i>Advances in Catalysis</i> , 2021, 68, 385-426.	0.1	1
36	Is the polarization of the Ci€C bond imperative for bifunctional outer-sphere Ci€C hydrogenation?. <i>Organic Chemistry Frontiers</i> , 2023, 10, 1301-1308.	2.3	3
37	Highly chemoselective ligands for Suzukiâ€Miyaura cross-coupling reaction based on virtual ligand-assisted screening. <i>Organic and Biomolecular Chemistry</i> , 2023, 21, 3132-3142.	1.5	2
38	Virtual Ligand Strategy in Transition Metal Catalysis Toward Highly Efficient Elucidation of Reaction Mechanisms and Computational Catalyst Design. <i>ACS Catalysis</i> , 2023, 13, 5697-5711.	5.5	3