

# Lutz Greb

## 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.

58  
papers

1,664  
citations

20  
h-index

40  
g-index

67  
ext. papers

2,152  
ext. citations

8.2  
avg, IF

5.79  
L-index

#	Paper	IF	Citations
58	Metal-free catalytic olefin hydrogenation: low-temperature H <sub>2</sub> activation by frustrated Lewis pairs. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 10164-8	16.4	200
57	Light-driven molecular motors: imines as four-step or two-step unidirectional rotors. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 13114-7	16.4	191
56	Functional-group tolerance in frustrated Lewis pairs: hydrogenation of nitroolefins and acrylates. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 5876-9	16.4	121
55	Lewis Superacids: Classifications, Candidates, and Applications. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 17881-17896	4.8	111
54	Catalytic metal-free Si-N cross-dehydrocoupling. <i>Chemical Communications</i> , <b>2014</b> , 50, 2318-20	5.8	97
53	Metal-free Catalytic Olefin Hydrogenation: Low-Temperature H <sub>2</sub> Activation by Frustrated Lewis Pairs. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 10311-10315	3.6	85
52	Electronic effects of triarylphosphines in metal-free hydrogen activation: a kinetic and computational study. <i>Chemical Science</i> , <b>2013</b> , 4, 2788	9.4	85
51	Synthetic Molecular Motors: Thermal N Inversion and Directional Photoinduced C=N Bond Rotation of Camphorquinone Imines. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 14345-8	16.4	64
50	Bis(perchlorocatecholato)silane-A Neutral Silicon Lewis Super Acid. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 1717-1720	16.4	63
49	An Extensive Set of Accurate Fluoride Ion Affinities for p-Block Element Lewis Acids and Basic Design Principles for Strong Fluoride Ion Acceptors. <i>ChemPhysChem</i> , <b>2020</b> , 21, 987-994	3.2	56
48	Toleranz gegenüber funktionellen Gruppen bei frustrierten Lewis-Paaren: Hydrierung von Nitroolefinen und Acrylaten. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 5989-5992	3.6	55
47	[2.2]Paracyclophane derived bisphosphines for the activation of hydrogen by FLPs: application in domino hydrosilylation/hydrogenation of enones. <i>Dalton Transactions</i> , <b>2012</b> , 41, 9056-60	4.3	51
46	Autoinduced catalysis and inverse equilibrium isotope effect in the frustrated Lewis pair catalyzed hydrogenation of imines. <i>Chemistry - A European Journal</i> , <b>2015</b> , 21, 8056-9	4.8	48
45	Element-Ligand Cooperativity with p-Block Elements. <i>European Journal of Inorganic Chemistry</i> , <b>2020</b> , 2020, 3030-3047	2.3	39
44	Bis(catecholato)silanes: assessing, rationalizing and increasing silicon's Lewis superacidity. <i>Chemical Science</i> , <b>2019</b> , 10, 7379-7388	9.4	35
43	Bis(perchlorocatecholato)silan Eine neutrale Silicium-Lewis-Superäure. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 1733-1736	3.6	34
42	Calix[4]pyrrole Hydridosilicate: The Elusive Planar Tetracoordinate Silicon Imparts Striking Stability to Its Anionic Silicon Hydride. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 17409-17412	16.4	32

41	Photo- and Metallo-responsive N-Alkyl $\beta$ Bisimines as Orthogonally Addressable Main-Chain Functional Groups in Metathesis Polymers. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 1142-5	16.4	30
40	Calix[4]pyrrole Aluminate: A Planar Tetracoordinate Aluminum(III) Anion and Its Unusual Lewis Acidity. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 18009-18012	16.4	26
39	Synthetic Molecular Motors: Thermal N Inversion and Directional Photoinduced C=N Bond Rotation of Camphorquinone Imines. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 14553-14556	3.6	24
38	Bis(perchlorocatecholato)germane: Hard and Soft Lewis Superacid with Unlimited Water Stability. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 20930-20934	16.4	16
37	Multidimensional Lewis Acidity: A Consistent Data Set of Chloride, Hydride, Methide, Water and Ammonia Affinities for 183 p-Block Element Lewis Acids. <i>ChemPhysChem</i> , <b>2021</b> , 22, 935-943	3.2	16
36	Switchable fluorescence by click reaction of a novel azidocarbazole dye. <i>RSC Advances</i> , <b>2014</b> , 4, 11528-11534	15.34	15
35	An isolable, crystalline complex of square-planar silicon(IV). <i>Chem</i> , <b>2021</b> , 7, 2151-2159	16.2	14
34	Metal-Ligand Cooperativity of the Calix[4]pyrrolato Aluminate: Triggerable C-C Bond Formation and Rate Control in Catalysis. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 17118-17124	16.4	12
33	What Distinguishes the Strength and the Effect of a Lewis Acid: Analysis of the Gutmann-Beckett Method. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> ,	16.4	12
32	Bis(pertrifluoromethylcatecholato)silane: Extreme Lewis Acidity Broadens the Catalytic Portfolio of Silicon. <i>Chemistry - A European Journal</i> , <b>2021</b> , 27, 10422-10427	4.8	12
31	Synthesis of Electron-Rich, Planarized Silicon(IV) Species and a Theoretical Analysis of Dimerizing Aminosilanes. <i>Chemistry - A European Journal</i> , <b>2017</b> , 23, 17764-17774	4.8	11
30	Twofold Oxidized and Twofold Protonated Redox-Active Guanidine: An Ultimate Intermediate in Proton-Coupled Electron-Transfer Reactions. <i>European Journal of Organic Chemistry</i> , <b>2018</b> , 2018, 5910-5915	3.25	10
29	Dioxygen Activation and Pyrrole $\beta$ Cleavage with Calix[4]pyrrolato Aluminates: Enzyme Model by Structural Constraint. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 15632-15640	16.4	9
28	Lewis Superacidic Catecholato Phosphonium Ions: Phosphorus-Ligand Cooperative C-H Bond Activation. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 15845-15851	16.4	9
27	Reversible OH-bond activation and amphotericism by metal-ligand cooperativity of calix[4]pyrrolato aluminate. <i>Chemical Science</i> , <b>2020</b> , 11, 9611-9616	9.4	8
26	Silicon Tris(perchloro)dioxolene: A Neutral Triplet Diradical. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 3616-3619	16.4	8
25	[Si(O C F ) ] : Self-Assembly of a Giant Perfluorinated Macrocyclic Host by Low-Barrier Si-O Bond Metathesis. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 22510-22513	16.4	7
24	Calix[4]pyrrolato Aluminates: The Effect of Ligand Modification on the Reactivity of Square-Planar Aluminum Anions. <i>Chemistry - A European Journal</i> , <b>2021</b> , 27, 5120-5124	4.8	6

23	Tris(dimethylamino)silylium ion: structure and reactivity of a dimeric silaguanidinium. <i>Chemical Communications</i> , <b>2019</b> , 55, 7764-7767	5.8	5
22	MetalLigand Cooperativity of the Calix[4]pyrrolato Aluminate: Triggerable C–O Bond Formation and Rate Control in Catalysis. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 17266-17272	3.6	4
21	Completing the Redox-Series of Silicon Trisdioxolene: ortho-Quinone and Lewis Superacid Make a Powerful Redox Catalyst. <i>Chemistry - A European Journal</i> , <b>2020</b> , 26, 17386-17389	4.8	4
20	Bis(perchlorocatecholato)germane: Hard and Soft Lewis Superacid with Unlimited Water Stability. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 21116-21120	3.6	4
19	Internal C–O Bond Rotation in Photoisomers of $\beta$ -Bisimines: a Light-Responsive Two-Step Molecular Speed Regulator Based on Double Imine Photoswitching. <i>European Journal of Organic Chemistry</i> , <b>2016</b> , 2016, 1243-1246	3.2	4
18	On the Metal Cooperativity in a Dinuclear Copper-Guanidine Complex for Aliphatic C-H Bond Cleavage by Dioxygen. <i>Chemistry - A European Journal</i> , <b>2019</b> , 25, 11257-11268	4.8	3
17	An Air-Stable, Neutral Phenothiazinyl Radical with Substantial Radical Stabilization Energy. <i>Chemistry - A European Journal</i> , <b>2020</b> , 26, 3152-3156	4.8	3
16	Paracyclophane derivatives in frustrated Lewis pair chemistry. <i>Topics in Current Chemistry</i> , <b>2013</b> , 334, 81-100		3
15	Calix[4]pyrroles as ligands: recent progress with a focus on the emerging p-block element chemistry. <i>Chemical Communications</i> , <b>2021</b> , 57, 11751-11763	5.8	3
14	The Structure of Bis(catecholato)silanes: Phase Adaptation by Dynamic Covalent Chemistry of the Si-O Bond. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 18784-18793	16.4	3
13	Bis(alizarinato)silane: In Silico Design and Synthesis of a Powerful Chromogenic Lewis Acid as a Dual-Gated Fluoride Ion Probe. <i>Organometallics</i> , <b>2020</b> , 39, 4340-4349	3.8	3
12	The inversion of tetrahedral p-block element compounds: general trends and the relation to the second-order Jahn-Teller effect.. <i>Chemical Science</i> , <b>2022</b> , 13, 510-521	9.4	2
11	[Si(O <sub>2</sub> C <sub>6</sub> F <sub>4</sub> ) <sub>2</sub> ] <sub>14</sub> : Selbstassemblierung eines perfluorierten makrocyclischen Wirts durch Si-O-Bindungsmetathese mit niedriger Barriere. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 22699-22702	3.6	2
10	Bis(perchlorocatecholato)silane and heteroleptic bidonors: hidden frustrated Lewis pairs resulting from ring strain. <i>Chemical Communications</i> , <b>2021</b> , 57, 8572-8575	5.8	2
9	Bis(perfluoropinacolato)silane: A Neutral Silane Lewis Superacid Activates Si-F Bonds. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 25799-25803	16.4	2
8	What Distinguishes the Strength and the Effect of a Lewis Acid: Analysis of the Gutmann-Beckett Method. <i>Angewandte Chemie</i> ,	3.6	1
7	Valence Tautomerism of p-Block Element Compounds [An Eligible Phenomenon for Main Group Catalysis?]. <i>European Journal of Inorganic Chemistry</i> , <b>2022</b> , 2022,	2.3	1
6	Lewis Superacids1-26		0

- 5 Disauerstoffaktivierung und Pyrrol-Spaltung mit Calix[4]pyrrolatoaluminaten: Enzymmodell durch strukturellen Zwang. *Angewandte Chemie*, **2021**, 133, 15761-15769 3.6 0
- 4 Bis(perfluoropinacolato)silane: A Neutral Silane Lewis Superacid Activates Si-F bonds. *Angewandte Chemie*, 3.6 0
- 3 Imines as Threefold Functional Devices: Motional, Photochemical, Constitutional **2022**, 325-349 0
- 2 Ungewöhnliches fñgewöhnliche p-Block-Elemente. *Nachrichten Aus Der Chemie*, **2021**, 69, 65-66 0.1
- 1 Siliziumtris(perchloro)dioxolen: ein neutrales Triplett-Diradikal. *Angewandte Chemie*, **2018**, 131, 3655 3.6