

# Lutz Greb

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

2,716  
citations

201674

27  
h-index

189892

50  
g-index

67  
all docs

67  
docs citations

67  
times ranked

1672  
citing authors

#	ARTICLE	IF	CITATIONS
1	Light-Driven Molecular Motors: Imines as Four-Step or Two-Step Unidirectional Rotors. <i>Journal of the American Chemical Society</i> , 2014, 136, 13114-13117.	13.7	241
2	Metal-free Catalytic Olefin Hydrogenation: Low-Temperature H <sub>2</sub> -Activation by Frustrated Lewis Pairs. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 10164-10168.	13.8	230
3	Lewis Superacids: Classifications, Candidates, and Applications. <i>Chemistry - A European Journal</i> , 2018, 24, 17881-17896.	3.3	206
4	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> , 2020, 21, 987-994.	2.1	145
5	Functional-Group Tolerance in Frustrated Lewis Pairs: Hydrogenation of Nitroolefins and Acrylates. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 5876-5879.	13.8	140
6	Catalytic metal-free Si-N cross-dehydrocoupling. <i>Chemical Communications</i> , 2014, 50, 2318-2320.	4.1	113
7	Bis(perchlorocatecholato)silane-A Neutral Silicon Lewis Super Acid. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 1717-1720.	13.8	100
8	Electronic effects of triarylphosphines in metal-free hydrogen activation: a kinetic and computational study. <i>Chemical Science</i> , 2013, 4, 2788.	7.4	93
9	Synthetic Molecular Motors: Thermal N Inversion and Directional Photoinduced C <sub>1</sub> ¼N Bond Rotation of Camphorquinone Imines. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14345-14348.	13.8	83
10	Element-Ligand Cooperativity with p-Block Elements. <i>European Journal of Inorganic Chemistry</i> , 2020, 2020, 3030-3047.	2.0	73
11	What Distinguishes the Strength and the Effect of a Lewis Acid: Analysis of the Gutmann-Beckett Method. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	68
12	Bis(catecholato)silanes: assessing, rationalizing and increasing silicon's Lewis superacidity. <i>Chemical Science</i> , 2019, 10, 7379-7388.	7.4	65
13	Calix[4]pyrrole Aluminate: A Planar Tetracoordinate Aluminum(III) Anion and Its Unusual Lewis Acidity. <i>Journal of the American Chemical Society</i> , 2019, 141, 18009-18012.	13.7	64
14	Calix[4]pyrrole Hydrosilicate: The Elusive Planar Tetracoordinate Silicon Imparts Striking Stability to Its Anionic Silicon Hydride. <i>Journal of the American Chemical Society</i> , 2018, 140, 17409-17412.	13.7	62
15	[2.2]Paracyclophane derived bisphosphines for the activation of hydrogen by FLPs: application in domino hydrosilylation/hydrogenation of enones. <i>Dalton Transactions</i> , 2012, 41, 9056.	3.3	58
16	Autoinduced Catalysis and Inverse Equilibrium Isotope Effect in the Frustrated Lewis Pair Catalyzed Hydrogenation of Imines. <i>Chemistry - A European Journal</i> , 2015, 21, 8056-8059.	3.3	58
17	An isolable, crystalline complex of square-planar silicon(IV). <i>Chem</i> , 2021, 7, 2151-2159.	11.7	49
18	Bis(perchlorocatecholato)silan - eine neutrale Silicium-Lewis-Supersäure. <i>Angewandte Chemie</i> , 2018, 130, 1733-1736.	2.0	48

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19	Bis(perchlorocatecholato)germane: Hard and Soft Lewis Superacid with Unlimited Water Stability. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 20930-20934.	13.8	45
20	Photo- and Metallo-responsive <i>N</i> -Alkyl $\beta$ -Bisimines as Orthogonally Addressable Main-Chain Functional Groups in Metathesis Polymers. <i>Journal of the American Chemical Society</i> , 2016, 138, 1142-1145.	13.7	41
21	Bis(pertrifluoromethylcatecholato)silane: Extreme Lewis Acidity Broadens the Catalytic Portfolio of Silicon. <i>Chemistry - A European Journal</i> , 2021, 27, 10422-10427.	3.3	41
22	Multidimensional Lewis Acidity: A Consistent Data Set of Chloride, Hydride, Methide, Water and Ammonia Affinities for 183 <i>p</i> -Block Element Lewis Acids. <i>ChemPhysChem</i> , 2021, 22, 935-943.	2.1	40
23	Lewis Superacidic Catecholato Phosphonium Ions: Phosphorus $\sigma$ -Ligand Cooperative C-H Bond Activation. <i>Journal of the American Chemical Society</i> , 2021, 143, 15845-15851.	13.7	35
24	The Structure of Bis(catecholato)silanes: Phase Adaptation by Dynamic Covalent Chemistry of the Si $\sigma$ -O Bond. <i>Journal of the American Chemical Society</i> , 2021, 143, 18784-18793.	13.7	31
25	Metal $\sigma$ -Ligand Cooperativity of the Calix[4]pyrrolato Aluminate: Triggerable C-C Bond Formation and Rate Control in Catalysis. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17118-17124.	13.8	30
26	Dioxygen Activation and Pyrrole $\sigma$ -Cleavage with Calix[4]pyrrolato Aluminates: Enzyme Model by Structural Constraint. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 15632-15640.	13.8	24
27	[Si(O <sub>2</sub> C <sub>6</sub> F <sub>4</sub> ) <sub>2</sub> ] <sub>14</sub> : Self-Assembly of a Giant Perfluorinated Macrocyclic Host by Low-Barrier Si $\sigma$ -O Bond Metathesis. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 22510-22513.	13.8	19
28	Reversible OH-bond activation and amphotericism by metal $\sigma$ -ligand cooperativity of calix[4]pyrrolato aluminate. <i>Chemical Science</i> , 2020, 11, 9611-9616.	7.4	19
29	Completing the Redox Series of Silicon Trisdioxolene: <i>ortho</i> -Quinone and Lewis Superacid Make a Powerful Redox Catalyst. <i>Chemistry - A European Journal</i> , 2020, 26, 17386-17389.	3.3	17
30	Calix[4]pyrrolato Aluminates: The Effect of Ligand Modification on the Reactivity of Square-Planar Aluminum Anions. <i>Chemistry - A European Journal</i> , 2021, 27, 5120-5124.	3.3	17
31	Bis(perfluoropinacolato)silane: A Neutral Silane Lewis Superacid Activates Si-F Bonds. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 25799-25803.	13.8	17
32	Synthesis of Electron-Rich, Planarized Silicon(IV) Species and a Theoretical Analysis of Dimerizing Aminosilanes. <i>Chemistry - A European Journal</i> , 2017, 23, 17764-17774.	3.3	16
33	Twofold Oxidized and Twofold Protonated Redox-Active Guanidine: An Ultimate Intermediate in Proton-Coupled Electron-Transfer Reactions. <i>European Journal of Organic Chemistry</i> , 2018, 2018, 5910-5915.	2.4	16
34	Calix[4]pyrroles as ligands: recent progress with a focus on the emerging <i>p</i> -block element chemistry. <i>Chemical Communications</i> , 2021, 57, 11751-11763.	4.1	16
35	Switchable fluorescence by click reaction of a novel azidocarbazole dye. <i>RSC Advances</i> , 2014, 4, 11528-11534.	3.6	15
36	Valence Tautomerism of <i>p</i> -Block Element Compounds $\sigma$ - An Eligible Phenomenon for Main Group Catalysis?. <i>European Journal of Inorganic Chemistry</i> , 2022, 2022, .	2.0	15

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37	Synthesis and Characterization of Hypercoordinated Silicon Anions: Catching Intermediates of Lewis Base Catalysis. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	15
38	Bis(perchlorocatecholato)germane: Hard and Soft Lewis Superacid with Unlimited Water Stability. <i>Angewandte Chemie</i> , 2020, 132, 21116-21120.	2.0	14
39	Silicon Tris(perchloro)dioxolene: A Neutral Triplet Diradical. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3616-3619.	13.8	13
40	Internal C-C Bond Rotation in Photoisomers of $\pi$ -Bisimines: a Light-Responsive Two-Step Molecular Speed Regulator Based on Double Imine Photoswitching. <i>European Journal of Organic Chemistry</i> , 2016, 2016, 1243-1246.	2.4	11
41	Metal-Ligand Cooperativity of the Calix[4]pyrrolato Aluminate: Triggerable C-C Bond Formation and Rate Control in Catalysis. <i>Angewandte Chemie</i> , 2020, 132, 17266-17272.	2.0	11
42	The inversion of tetrahedral p-block element compounds: general trends and the relation to the second-order Jahn-Teller effect. <i>Chemical Science</i> , 2022, 13, 510-521.	7.4	11
43	Calix[4]pyrrolato Aluminate Catalyzes the Dehydrocoupling of Phenylphosphine Borane to High Molar Weight Polymers. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	11
44	What Distinguishes the Strength and the Effect of a Lewis Acid: Analysis of the Gutmann-Beckett Method. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	10
45	Calix[4]pyrrolato Stannate(II): A Tetraamido Tin(II) Dianion and Strong Metal-Centered $\sigma$ -Donor. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	10
46	Bis(perchlorocatecholato)silane and heteroleptic bidonors: hidden frustrated Lewis pairs resulting from ring strain. <i>Chemical Communications</i> , 2021, 57, 8572-8575.	4.1	9
47	An Air-Stable, Neutral Phenothiazinyl Radical with Substantial Radical Stabilization Energy. <i>Chemistry - A European Journal</i> , 2020, 26, 3152-3156.	3.3	8
48	Tris(dimethylamino)silylium ion: structure and reactivity of a dimeric silaguanidinium. <i>Chemical Communications</i> , 2019, 55, 7764-7767.	4.1	7
49	Bis(alizarinato)silane: In Silico Design and Synthesis of a Powerful Chromogenic Lewis Acid as a Dual-Gated Fluoride Ion Probe. <i>Organometallics</i> , 2020, 39, 4340-4349.	2.3	7
50	Disauerstoffaktivierung und Pyrrol- $\text{C}=\text{N}$ -Spaltung mit Calix[4]pyrrolatoaluminaten: Enzymmodell durch strukturellen Zwang. <i>Angewandte Chemie</i> , 2021, 133, 15761-15769.	2.0	7
51	Paracyclophane Derivatives in Frustrated Lewis Pair Chemistry. <i>Topics in Current Chemistry</i> , 2012, 334, 81-100.	4.0	4
52	On the Metal Cooperativity in a Dinuclear Copper-Guanidine Complex for Aliphatic C-H Bond Cleavage by Dioxygen. <i>Chemistry - A European Journal</i> , 2019, 25, 11257-11268.	3.3	4
53	Synthesis and Characterization of Hypercoordinated Silicon Anions: Catching Intermediates of Lewis Base Catalysis. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	4
54	Stereoinversion of tetrahedral p-block element hydrides. <i>Journal of Chemical Physics</i> , 2022, 156, .	3.0	4

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55	Calix[4]pyrrolato Aluminate Catalyzes the Dehydrocoupling of Phenylphosphine Borane to High Molar Weight Polymers. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	3
56	Silicon tris(perchloro)dioxolene: a neutral triplet diradical. <i>Angewandte Chemie</i> , 2018, 131, 3655.	2.0	2
57	[Si(O 2 C 6 F 4 ) 2 ] 14 : Selbstatsemblierung eines perfluorierten makrocyclischen Wirts durch Siâ€Oâ€Bindungsmetathese mit niedriger Barriere. <i>Angewandte Chemie</i> , 2020, 132, 22699-22702.	2.0	2
58	Bis(perfluoropinacolato)silane: A Neutral Silane Lewis Superacid Activates Siâ€F bonds. <i>Angewandte Chemie</i> , 0, , .	2.0	2
59	Calix[4]pyrrolatostannat(II): Ein Tetraamidozinn(II)dianion als starker, metallzentrierter Îfâ€Donor. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	2
60	Frontispiece: Lewis Superacids: Classifications, Candidates, and Applications. <i>Chemistry - A European Journal</i> , 2018, 24, .	3.3	0
61	UngewÃ¼hnliches fÃ¼r gewÃ¼hnliche pâ€Blockâ€Elemente. <i>Nachrichten Aus Der Chemie</i> , 2021, 69, 65-66.	0.0	0