

Raphael Jf Berger

List of Publications by Year in descending order

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100
papers

2,389
citations

218677

26
h-index

254184

43
g-index

114
all docs

114
docs citations

114
times ranked

2249
citing authors

#	ARTICLE	IF	CITATIONS
1	Calculations of magnetically induced current densities: theory and applications. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2016, 6, 639-678.	14.6	244
2	A Stable Derivative of the Global Minimum on the Si ₆ H ₆ Potential Energy Surface. Angewandte Chemie - International Edition, 2011, 50, 7936-7939.	13.8	136
3	Oxygenation of Simple Zinc Alkyls: A Surprising Dependence of Product Distributions on the Alkyl Substituents and the Presence of Water. Inorganic Chemistry, 2007, 46, 4293-4297.	4.0	74
4	On the Molecular and Electronic Structures of AsP ₃ and P ₄ . Journal of the American Chemical Society, 2010, 132, 8459-8465.	13.7	65
5	Intramolecular London Dispersion Interaction Effects on Gas-Phase and Solid-State Structures of Diamondoid Dimers. Journal of the American Chemical Society, 2017, 139, 16696-16707.	13.7	62
6	Neutral ligand induced methane elimination from rare-earth metal tetramethylaluminates up to the six-coordinate carbide state. Dalton Transactions, 2009, , 5755.	3.3	61
7	Analysis of the magnetically induced current density of molecules consisting of annelated aromatic and antiaromatic hydrocarbon rings. Physical Chemistry Chemical Physics, 2016, 18, 15934-15942.	2.8	61
8	Syntheses, crystal structures, reactivity, and photochemistry of gold(iii) bromides bearing N-heterocyclic carbenes. Dalton Transactions, 2011, 40, 9899.	3.3	60
9	Beryllium Dichloride Coordination by Nitrogen Donor Molecules. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2003, 58, 173-182.	0.7	58
10	An Improved Gas Electron Diffractometer – The Instrument, Data Collection, Reduction and Structure Refinement Procedures. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2009, 64, 1259-1268.	0.7	57
11	Ligand-Protected Strain-Free Diarylgermylenes. Organometallics, 2001, 20, 418-423.	2.3	53
12	The Pentamethylcyclopentadienylsilicon(II) Cation as a Catalyst for the Specific Degradation of Oligo(ethyleneglycol) Diethers. Angewandte Chemie - International Edition, 2011, 50, 6843-6846.	13.8	52
13	Silver and Gold Complexes with a New 1,10-Phenanthroline Analogue N-Heterocyclic Carbene: A Combined Structural, Theoretical, and Photophysical Study. Chemistry - A European Journal, 2012, 18, 5506-5509.	3.3	52
14	Dismutational and Global Minimum Isomers of Heavier 1,4-Dimetallatetrasilabenzenes of Group 14. Angewandte Chemie - International Edition, 2014, 53, 3514-3518.	13.8	49
15	Ring Currents in the Dismutational Aromatic Si ₆ R ₆ . Angewandte Chemie - International Edition, 2010, 49, 10006-10009.	13.8	46
16	N,N-Dimethylaminopropylsilane: A Case Study on the Nature of Weak Intramolecular Si...N Interactions. Chemistry - A European Journal, 2008, 14, 11027-11038.	3.3	44
17	Luminescence Phenomena and Solid-State Structures of Trimethyl- and Triethylgallium. Angewandte Chemie - International Edition, 2002, 41, 2519-2522.	13.8	42
18	Unprecedented Large Temperature Dependence of Silver(I)–Silver(I) Distances in Some N-Heterocyclic Carbene Silver(I) Complex Salts. Organometallics, 2013, 32, 2876-2884.	2.3	40

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19	Understanding the Polymerization of Polyfurfuryl Alcohol: Ring Opening and Diels-Alder Reactions. <i>Polymers</i> , 2019, 11, 2126.	4.5	39
20	Current density and molecular magnetic properties. <i>Chemical Communications</i> , 2021, 57, 12362-12378.	4.1	39
21	Relativistic effects in triphenylbismuth and their influence on molecular structure and spectroscopic properties. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 15520.	2.8	35
22	fac-Ir(ppy) ₃ : Structures in the Gas-Phase and of a New Solid Modification. <i>European Journal of Inorganic Chemistry</i> , 2010, 2010, 1613-1617.	2.0	32
23	Tetraberyllium- $\text{I}^{\text{4+}}$ -oxo-hexa(arylcarboxylates). <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2001, 56, 979-989.	0.7	31
24	Atomically Precise Expansion of Unsaturated Silicon Clusters. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5124-5128.	13.8	30
25	Molecular structure and conformational preferences of gaseous 1-iodo-1-silacyclohexane. <i>Journal of Molecular Structure</i> , 2012, 1012, 126-130.	3.6	27
26	A Relativity Enhanced, Medium-Strong Au(I)-H \cdots N Hydrogen Bond in a Protonated Phenylpyridine-Gold(I) Thiolate. <i>Inorganic Chemistry</i> , 2017, 56, 956-961.	4.0	27
27	Structural, Spectroscopic and Theoretical Studies of (tButyl-isocyanide)gold(I) Iodide. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2002, 57, 881-889.	0.7	26
28	Raman spectroscopic investigation of tannin-furanic rigid foams. <i>Vibrational Spectroscopy</i> , 2016, 84, 58-66.	2.2	25
29	Strong Intramolecular Si \cdots N Interactions in the Chlorosilanes Cl ₃ SiH ₂ SiOCH ₂ CH ₂ NMe ₂ (μ -TjEQ110.78)	4.0	25
30	Functionalized Bis(pentafluoroethyl)phosphanes: Improved Syntheses and Molecular Structures in the Gas Phase. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 3392-3404.	2.0	24
31	Trimethylaluminum: Bonding by Charge and Current Topology. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 13816-13820.	13.8	23
32	Isomerism of Coordination Modes and Numbers in Pentanuclear Organozinc Hydroxylamides: An Exercise in Subtle Substituent Size Effects. <i>European Journal of Inorganic Chemistry</i> , 2006, 2006, 4219-4224.	2.0	22
33	Highly efficient cold-white light emission in a [Au ₂ CuCl ₂ (P \cdots N) ₂]PF ₆ type salt. <i>Dalton Transactions</i> , 2017, 46, 3438-3442.	3.3	22
34	Sila-Substitution of Alkyl Nitrates: Synthesis, Structural Characterization, and Sensitivity Studies of Highly Explosive (Nitratomethyl)-, Bis(nitratomethyl)-, and Tris(nitratomethyl)silanes and Their Corresponding Carbon Analogues. <i>Inorganic Chemistry</i> , 2010, 49, 4865-4880.	4.0	21
35	First mixed hydrazide/hydroxylamide metal aggregates. <i>Chemical Communications</i> , 2006, , 3993-3995.	4.1	20
36	How does relativity affect magnetically induced currents?. <i>Chemical Communications</i> , 2015, 51, 13961-13963.	4.1	20

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37	Chemical constitution of polyfurfuryl alcohol investigated by FTIR and Resonant Raman spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 262, 120090.	3.9	18
38	Prediction of a Cyclic Helical Oligoacetylene Showing Anapolar Ring Currents in the Magnetic Field. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2012, 67, 1127-1131.	0.7	18
39	Potassium Hydroxylamine Complexes. <i>Inorganic Chemistry</i> , 2008, 47, 4506-4512.	4.0	17
40	Variations in the Mechanisms of Direct Metallation of Cyclic and Acyclic Aminals. <i>Chemistry - A European Journal</i> , 2009, 15, 11123-11127.	3.3	17
41	Aryl-Aryl Interactions in (Aryl)Perhalogenated 1,2-Diaryldisilanes. <i>Chemistry - A European Journal</i> , 2020, 26, 2169-2173.	3.3	17
42	Lumineszenzphänomene und Festkörperstrukturen von Trimethyl- und Triethylgallium. <i>Angewandte Chemie</i> , 2002, 114, 2629-2632.	2.0	16
43	First Solid State Structures of Real Diorganyl Phosphinous Acids R_2POH ($R=CF_3$, C_2F_5). <i>Chemistry - A European Journal</i> , 2011, 17, 13420-13423.	3.3	15
44	Conformational composition, molecular structure and decomposition of difluorophosphoryl azide in the gas phase. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 8784-8791.	2.8	15
45	Integration of global ring currents using the Ampère-Maxwell law. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 624-628.	2.8	15
46	Generation of Bis[2,6-di(4-methoxy-phenyl)phenyl]plumbylene and its Insertion into n-Butyliodide to Give a Tetrahedral Triorganolead(IV) Iodide. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2000, 55, 995-999.	0.7	14
47	B=N Bonds and BCN Rings - Reactivity and Charge Density Studies. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2013, 639, 2086-2095.	1.2	14
48	The symmetry principle of antiaromaticity. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2020, 75, 327-339.	0.7	14
49	The Quest for Beryllium Peroxides. <i>Inorganic Chemistry</i> , 2001, 40, 2270-2274.	4.0	13
50	Two diamino-substituted lithiocarbanions in one molecule. <i>Chemical Communications</i> , 2009, , 5558.	4.1	13
51	Molecular structure of tris(pentafluoroethyl)phosphane $P(C_2F_5)_3$. <i>Dalton Transactions</i> , 2010, 39, 5630.	3.3	13
52	Chlorodifluoroacetyl Isocyanate, $Cl_2CC(O)NCO$: Preparation and Structural and Spectroscopic Studies. <i>Journal of Physical Chemistry A</i> , 2012, 116, 11586-11595.	2.5	13
53	Influence of Antipodally Coupled Iodine and Carbon Atoms on the Cage Structure of 9,12- <i>closo</i> -1,2- $C_{10}H_{10}$: An Electron Diffraction and Computational Study. <i>Inorganic Chemistry</i> , 2015, 54, 11868-11874.	4.0	13
54	Glutamyl-glutamate - a tailor-made chelating ligand for the $[Be_4O]^{6+}$ core in basic beryllium complexes and implications on investigations on the origins of chronic beryllium disease. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2016, 71, 71-75.	0.7	13

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55	The keto/enol tautomerism in acetoacetyl fluoride: properties, spectroscopy, and gas-phase and crystal structures of the enol form. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 11445.	2.8	12
56	Inherent Stability Limits of Intramolecular Boron Nitrogen Lewis Acid-Base Pairs. <i>Chemistry - A European Journal</i> , 2012, 18, 9312-9320.	3.3	12
57	On the presence or absence of geminal Si-N interactions (δ -effect) in pentafluorophenylsilyl compounds with SiCN, SiNN and SiON backbones. <i>Dalton Transactions</i> , 2008, , 5652.	3.3	11
58	Silanetriols in the gas phase: single molecules vs. hydrogen-bonded dimers. <i>Dalton Transactions</i> , 2012, 41, 3630-3632.	3.3	10
59	Gold(i) mediated rearrangement of [7]-helicene to give a benzo[cd]pyrenium cation embedded in a chiral framework. <i>Chemical Communications</i> , 2014, 50, 5251-5253.	4.1	10
60	The Structure of Mn(acac) ₃ Experimental Evidence of a Static Jahn-Teller Effect in the Gas Phase. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 15751-15754.	13.8	10
61	Erweiterung ungesättigter Siliciumcluster mit atomarer Genauigkeit. <i>Angewandte Chemie</i> , 2019, 131, 5178-5182.	2.0	10
62	London dispersion-driven hetero-aryl-aryl interactions in 1,2-diaryldisilanes. <i>Chemical Communications</i> , 2020, 56, 2252-2255.	4.1	10
63	Chlorobis(pentafluoroethyl)phosphane: Improved Synthesis and Molecular Structure in the Gas Phase. <i>Chemistry - A European Journal</i> , 2011, 17, 3968-3976.	3.3	9
64	Structures of Energetic Acetylene Derivatives HC ₂ CCH ₂ ONO ₂ , (NO ₂) ₃ CCH ₂ CCH ₂ C(NO ₂) ₃ and Trinitroethane, (NO ₂) ₃ CCH ₃ . <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2013, 68, 719-731.	0.7	9
65	A Non-Iterative Numerical Solver of Poisson and Helmholtz Equations Using High-Order Finite-Element Functions. <i>Advances in Quantum Chemistry</i> , 2005, 50, 235-247.	0.8	8
66	The Smallest σ -Aurophilic Species. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2009, 64, 388-394.	0.7	8
67	A Two-Step Synthesis for Li ₂ CoPO ₄ F as High-Voltage Cathode Material. <i>Journal of the Electrochemical Society</i> , 2015, 162, A2679-A2683.	2.9	8
68	Self-supporting hierarchically organized silicon networks via magnesiothermic reduction. <i>Monatshefte Für Chemie</i> , 2016, 147, 269-278.	1.8	8
69	On the topology of total and diamagnetic induced electronic currents in molecules. <i>Journal of Chemical Physics</i> , 2020, 152, 194101.	3.0	8
70	A Theoretical Study of the Half-Sandwich Silicon(II) Cation [(Me ₅ C ₅)Si] ⁺ and of the Cationic Complex [(Me ₅ C ₅)Si (DME)] ⁺ . <i>Silicon</i> , 2010, 2, 229-234.	3.3	7
71	Basic Beryllium ortho-Fluorobenzoate and its Mono-hydroxo Derivative. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2011, 66, 1131-1135.	0.7	7
72	Structure and Conformational Properties of Azido(difluoro)phosphane, F ₂ PN ₃ . <i>European Journal of Inorganic Chemistry</i> , 2011, 2011, 895-905.	2.0	7

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73	Defect and Surface Area Control in Hydrothermally Synthesized $\text{LiMn}_{0.8}\text{Fe}_{0.2}\text{PO}_4$ Using a Phosphate Based Structure Directing Agent. <i>Crystal Growth and Design</i> , 2015, 15, 4213-4218.	3.0	7
74	The perfluorinated alcohols $(\text{F}_5\text{C}_6)(\text{F}_3\text{C})_2\text{COH}$ and $(\text{F}_5\text{C}_6)(\text{F}_{10}\text{C}_5)\text{COH}$: synthesis, theoretical and acidity studies, spectroscopy and structures in the solid state and the gas phase. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 6184.	2.8	6
75	Chlorodifluoroacetyl Cyanide, $\text{ClF}_2\text{CC}(\text{O})\text{CN}$: Synthesis, Structure, and Spectroscopic Characterization. <i>Inorganic Chemistry</i> , 2011, 50, 9650-9659.	4.0	6
76	Spatial Contributions to ^1H NMR Chemical Shifts of Free-Base Porphyrinoids. <i>Chemistry</i> , 2021, 3, 1005-1021.	2.2	6
77	Basic Beryllium ortho-Fluorobenzoate and its Mono-hydroxo Derivative. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2011, 66, 1131.	0.7	6
78	Straightforward Solvothermal Synthesis toward Phase Pure $\text{Li}_2\text{CoPO}_4\text{F}$. <i>Crystal Growth and Design</i> , 2016, 16, 4999-5005.	3.0	5
79	Monolithic porous magnesium silicide. <i>Dalton Transactions</i> , 2017, 46, 8855-8860.	3.3	5
80	Ligand Coordination in Bis(η^2 -diketonato) d Metals: The Mn(II) Case of D_2h versus D_2d Symmetry. <i>Inorganic Chemistry</i> , 2019, 58, 4344-4349.	4.0	5
81	Arylamidoethyl-Functionalized Imidazolium Salts: Precursors for Dianionic $[\text{C},\text{N},\text{C}]_2$ Carbene Ligands at a Platinum Center. <i>Organometallics</i> , 2021, 40, 890-898.	2.3	5
82	Isomeric Mono- and Bis[(phosphane)gold(I)] Thiocyanate Complexes. <i>Chemistry - A European Journal</i> , 2005, 11, 3574-3582.	3.3	4
83	Expectation and surprise in group 13 organometallics: molecular vs. polymeric aggregation of Me_2Ga and Me_2In norcamphor oximates. <i>Dalton Transactions</i> , 2006, , 5334.	3.3	4
84	Organozinc hydroxylamides: on the bulk-dependent interplay of nuclearity, structure and dynamics. <i>Dalton Transactions</i> , 2011, 40, 1144-1157.	3.3	4
85	A diethylhydroxylamine based mixed lithium/beryllium aggregate. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2015, 70, 279-282.	0.7	4
86	A consistent model for the key complex in chronic beryllium disease. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2020, 75, 413-419.	0.7	4
87	MOLECULAR STRUCTURE OF MANGANESE TRIS-ACETYLACETONATE IN DIFFERENT SPIN STATES. <i>ChemChemTech</i> , 2017, 60, 47.	0.3	4
88	From sol-gel prepared porous silica to monolithic porous $\text{Mg}_2\text{Si}/\text{MgO}$ composite materials. <i>Journal of Sol-Gel Science and Technology</i> , 2019, 89, 295-302.	2.4	3
89	Relativistic Spin-Orbit Electronegativity and the Chemical Bond Between a Heavy Atom and a Light Atom. <i>Chemistry - A European Journal</i> , 2022, 28, .	3.3	3
90	Reinvestigation of the gas-phase structure of tris(trifluoromethyl)arsine. <i>Journal of Molecular Structure</i> , 2010, 978, 205-208.	3.6	2

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91	Bis($\frac{1}{4}$ -diisopropylhydroxylamino)- μ_2 O: μ_2 O-bis[(diisopropylhydroxylamino- μ O)beryllium]. Acta Crystallographica Section E: Structure Reports Online, 2012, 68, m1463-m1463.	0.2	2
92	Gilded Chalices: Tetra-aurated Calix[4]arenes. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2014, 69, 1061-1072.	0.7	2
93	A Novel Two-Step Synthesis for $\text{Li}_2\text{CoPO}_4\text{F}$ as High-Voltage Cathode Material. ECS Transactions, 2015, 66, 95-109.	0.5	2
94	Die Struktur von $\text{Mn}(\text{acac})_3$ - experimenteller Beleg für einen statischen Jahn-Teller-Effekt in der Gasphase. Angewandte Chemie, 2017, 129, 15958-15961.	2.0	2
95	Time-resolved diffraction: general discussion. Faraday Discussions, 2021, 228, 161-190.	3.2	2
96	Relativistic Spin-Orbit Electronegativity and the Chemical Bond Between a Heavy Atom and a Light Atom. Chemistry - A European Journal, 2022, 28, e202200966.	3.3	2
97	Spin-orbit coupling effects on the molecular structure of Thallium(I)formate. Journal of Molecular Structure, 2017, 1132, 70-72.	3.6	1
98	A comparison of computational methodologies for the structural modelling of biologically relevant zinc complexes. Journal of Molecular Modeling, 2019, 25, 258.	1.8	1
99	Innentitelbild: Trimethylaluminium: Bindungsverhältnisse nach Ladungs- und Stromtopologie (Angew.) Tj ETQq1 1 0,784314 ggBT /Over	2.0	0
100	Cover Image, Volume 6, Issue 6. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2016, 6, i.	14.6	0