Hansgeorg SchnÃ¶ckel

List of Publications by Year
in descending order

100 papers	5,810 citations	61984 43 h-index	85541 71 g-index
126 all docs	126 docs citations	126 times ranked	1511 citing authors

#	Article	IF	Citations
1	The Tetrameric Aluminum(I) Compound[{Al(Î·5-C5Me5)}4]. Angewandte Chemie International Edition in English, 1991, 30, 564-565.	4.4	357
2	Aluminum(I) and Gallium(I) Compounds: Syntheses, Structures, and Reactions. Angewandte Chemie International Edition in English, 1996, 35, 129-149.	4.4	331
3	Metalloid Aluminum and Gallium Clusters: Element Modifications on the Molecular Scale?. Angewandte Chemie - International Edition, 2002, 41, 3532-3554.	13.8	270
4	Die tetramere Aluminium(<scp>I</scp>)â€Verbindung [{Al(Î·⁵â€C₅Me₅)}₄]. Angewandte Chemie, 1991, 103, 594-595.	2.0	231
5	Aluminium(<scp>I</scp>)â€•und Gallium(<scp>I</scp>)â€•Verbindungen: Synthesen, Strukturen und Reaktionen. Angewandte Chemie, 1996, 108, 141-161.	2.0	188
6	Structures and Properties of Metalloid Al and Ga Clusters Open Our Eyes to the Diversity and Complexity of Fundamental Chemical and Physical Processes during Formation and Dissolution of Metals. Chemical Reviews, 2010, 110, 4125-4163.	47.7	182
7	Metalloide Aluminium- und Galliumcluster: Elementmodifikationen im molekularen MaÃŸstab?. Angewandte Chemie, 2002, 114, 3682-3704.	2.0	169
8	Hexameric Aggregates in Crystalline(Pentamethylcyclopentadienyl)gallium(I) at 200 K. Angewandte Chemie International Edition in English, 1997, 36, 860-862.	4.4	112
9	Al50C120H180: A Pseudofullerene Shell of 60 Carbon Atoms and 60 Methyl Groups Protecting a Cluster Core of 50 Aluminum Atoms. Angewandte Chemie - International Edition, 2004, 43, 3186-3189.	13.8	112
10	[Al7{N(SiMe3)2}6]â^': A First Step towards Aluminum Metal Formation by Disproportionation. Angewandte Chemie - International Edition, 1999, 38, 2926-2928.	13.8	96
11	Formation, structure and bonding of metalloid Al and Ga clusters. A challenge for chemical efforts in nanosciences. Dalton Transactions, 2008, , 4344.	3.3	88
12	(Cyclopentadienyl)-Gallium(I)-Verbindungen. Journal of Organometallic Chemistry, 1993, 463, 37-40.	1.8	85
13	[P4(Cp*Al)6]: A Compound with an Unusual P4Al6 Cage Structure. Angewandte Chemie International Edition in English, 1994, 33, 199-200.	4.4	82
14	Snapshots of the Alï£¿Al Ïƒâ€Bond Formation Starting from {AlR₂} Units: Experimental and Computational Observations. Angewandte Chemie - International Edition, 2009, 48, 8141-8145.	13.8	81
15	From AlX/GaX monohalide molecules to metalloid aluminum and gallium clusters. Advances in Organometallic Chemistry, 2001, 47, 235-281.	1.0	75
16	Synthesis and Structure of a Ga84R204â^' Cluster-A Link between Metalloid Clusters and Fullerenes?. Angewandte Chemie - International Edition, 2001, 40, 711-715.	13.8	73
17	Synthesis and Structure of a Neutral SiAl14 Cluster. Journal of the American Chemical Society, 2000, 122, 6955-6959.	13.7	70
18	The Molecular Structure of Pentamethylcyclopentadienylgallium, Ga(eta-C5Me5), by Gas-Phase Electron Diffraction. The First Monomeric Organogallium(I) Compound.. Acta Chemica Scandinavica, 1994, 48, 172-174.	0.7	70

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19	Al22Cl20Â·12L (L = THF, THP):Â The First Polyhedral Aluminum Chlorides. Journal of the American Chemical Society, 2001, 123, 9099-9106.	13.7	65
20	[Ga(C5H5)]: Synthesis, Identification, and Ab Initio Investigations. Angewandte Chemie International Edition in English, 1992, 31, 1362-1364.	4.4	63
21	Ga22[Si(SiMe3)3]8: The Largest Atom-Centered Neutral Main Group Metal Cluster. Angewandte Chemie - International Edition, 1999, 38, 3381-3383.	13.8	60
22	An Al12R8â^' cluster as an intermediate on the way from aluminium(I) compounds to aluminium metalâ€. Chemical Communications, 1999, , 1933-1934.	4.1	60
23	Donor-Stabilized Aluminum(I) Bromide. Angewandte Chemie International Edition in English, 1994, 33, 1754-1755.	4.4	59
24	A Metalloid [Ga23{N(SiMe3)2}11] Cluster: The Jellium Model Put to Test. Angewandte Chemie - International Edition, 2007, 46, 1658-1662.	13.8	59
25	MgCl and Mg₂Cl₂: From Theoretical and Thermodynamic Considerations to Spectroscopy and Chemistry of Species with Mgï£¿Mg Bonds. Angewandte Chemie - International Edition, 2008, 47, 8740-8744.	13.8	59
26	[{(Et2O)2ClGa}Ga{GaCl2(Et2O)}3]: A Molecular Compound with a Tetrahedral Ga5unit. Angewandte Chemie International Edition in English, 1993, 32, 1059-1060.	4.4	56
27	Donor-Stabilized Aluminum(II) Bromide. Angewandte Chemie International Edition in English, 1994, 33, 862-863.	4.4	56
28	Pentabenzylcyclopentadienides of Lithium. Organometallics, 1996, 15, 4702-4706.	2.3	54
29	[(CpNi)2(Cp*Al)2]: Cp*Al as a Bridging Two-Electron Ligand. Angewandte Chemie International Edition in English, 1995, 33, 2482-2483.	4.4	51
30	Synthesis, Structure, and Bonding of a Polyhedral Al2Co2Cluster. Organometallics, 1998, 17, 2373-2375.	2.3	50
31	Al22Br20â‹…12 THF: The First Polyhedral Aluminum Subhalideâ€"A Step on the Path to a New Modification of Aluminum?. Angewandte Chemie - International Edition, 1999, 38, 1739-1743.	13.8	49
32	Synthesis and structure of metalloid aluminum clustersâ€"intermediates on the way to the elements. Polyhedron, 2002, 21, 489-501.	2.2	48
33	Preparation and Precise Structural Determination of a Second Ga84Cluster Compound. A First Hint for Cluster Doping and Its Fundamental Consequences in the Field of Chemistry and Physics of Nanoscaled Metalloid Cluster Material. Inorganic Chemistry, 2003, 42, 7731-7733.	4.0	48
34	Synthesis, Structure, and Oxidation of Donor-Stabilized Gallium(I) Iodide: Ga8I8Â·6PEt3. Angewandte Chemie International Edition in English, 1997, 36, 1969-1971.	4.4	47
35	Molecular Structure of Fluorenyllithium,. Organometallics, 1998, 17, 3512-3515.	2.3	47
36	Donorstabilisiertes Aluminium(I)-iodid. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 1996, 622, 149-152.	1.2	45

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37	Donorstabilisiertes Aluminium(<scp>I</scp>)â€bromid. Angewandte Chemie, 1994, 106, 1860-1861.	2.0	44
38	Disodium Tetrasupersilyltetragallanediide Na2Ga4R*4Â·2THF (R* = SitBu3) â^' Preparation of a Novel Gallium Cluster Compound via Dichlorodisupersilyldigallane R*2Ga2Cl2. European Journal of Inorganic Chemistry, 2002, 2002, 351-356.	2.0	43
39	GaGa- und AlFe-Mehrfachbindungen? Ein Interpretationsversuch auf der Grundlage von Kraftkonstanten. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2000, 626, 1095-1099.	1.2	42
40	Al20X10 (X=Cl, Br): Snapshots of the Formation of Metalloid Clusters from Polyhedral AlnXm Molecules?. Angewandte Chemie - International Edition, 2005, 44, 6956-6960.	13.8	42
41	[Ga(C₅H₅)]: Synthese, Identifizierung und abâ€initioâ€Untersuchungen. Angewandte Chemie, 1992, 104, 1376-1378.	2.0	41
42	[(CpNi)₂(Cp*Al)₂]: Cp*Al als verbrÃ¼ckender Zweielektronenâ€Ligand. Angewandte Chemie, 1994, 106, 2570-2571.	2.0	40
43	Monitoring the dissolution process of metals in the gas phase: reactions of nanoscale Al and Ga metal atom clusters and their relationship to similar metalloid clusters. Chemical Communications, 2008, , 2075.	4.1	40
44	[Ga18(SitBu3)8] and [Ga22(SitBu3)8]â€"Syntheses and Structural Characterization of Novel Gallium Cluster Compounds. Chemistry - A European Journal, 2001, 7, 3348-3353.	3.3	38
45	The Polyhedral Gallium Subhalide[Ga24Br22]â‹…10â€‰THF: The First Step on the Path to a New Modification of Gallium?. Angewandte Chemie - International Edition, 2004, 43, 3190-3192.	13.8	38
46	Aluminum Zintl anion moieties within sodium aluminum clusters. Journal of Chemical Physics, 2014, 140, 054301.	3.0	37
47	The Reaction Rates of O₂ with Closed-Shell and Open-Shell Al_x^{â€“} and Ga_x^{â€“} Clusters under Single-Collision Conditions: Experimental and Theoretical Investigations toward a Generally Valid Model for the Hindered Reactions of O₂ with Metal Atom Clusters. Journal of the American Chemical Society, 2014, 136, 2607-2616.	13.7	37
48	The Chlorination of the [Al13]â^' Cluster and the Stepwise Formation of Its Intermediate Products, [Al11]â^', [Al9]â^', and [Al7]â^': A Model Reaction for the Oxidation of Metals?. Angewandte Chemie - International Edition, 2006, 45, 1476-1479.	13.8	36
49	Al4(C5Me4H)4: Structure, reactivity and bonding. Inorganica Chimica Acta, 2008, 361, 457-461.	2.4	36
50	A Metalloid Al14 Cluster with the Structure of a â€œNano-Wheelâ€• Angewandte Chemie - International Edition, 2000, 39, 799-801.	13.8	35
51	Al5Br7â‹…5â€‰THFâ€"The First Saltlike Aluminum Subhalide. Angewandte Chemie - International Edition, 2000, 39, 3691-3694.	13.8	32
52	[Ga51(PtBu2)14Br6]3â^': An Elementoid Gallium Cluster with Metalloid and Nonmetalloid Structural Elements. Angewandte Chemie - International Edition, 2004, 43, 302-305.	13.8	32
53	A Ga8R6 Cluster as an Ideal Model for a Metal-Metal Bond?. Angewandte Chemie - International Edition, 2001, 40, 1241-1243.	13.8	31
54	Clusters of the Heavier Group 13 Elements. , 2005, , 126-168.		31

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55	Matrix Reactivity of AlF and AlCl in the Presence of HCl and HBr:Â Generation and Characterization of the New Al(III) Hydrides HAlFCl, HAlFBr, and HAlClBr and the Monomeric Mixed Al(III) Halides AlX2Y (X,) Tj ETQq1 1 0.784314 rgBT /Ov		
56	Ga19(C(SiMe3)3)6â^' as a precursor for pure and silicon-doped gallium clusters: a mass spectrometric study of a Ga13â^' and a Ga12Siâ^' anion. International Journal of Mass Spectrometry, 2002, 214, 383-395.	1.5	30
57	Title is missing!. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2003, 629, 1175-1183.	1.2	30
58	The Stepwise Fragmentation and Modification of a Structurally well-defined Metalloid Cluster in the Gas-Phase â€“ from [Ge9R3]â^' (R = Si(SiMe3)3) to [Ge9]â^' and [Ge9Si]â^'. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2006, 632, 1710-1716.	1.2	30
59	Hunting for the Magnesium(I) Species: Formation, Structure, and Reactivity of some Donorâ€Free Grignard Compounds. Angewandte Chemie - International Edition, 2012, 51, 9025-9029.	13.8	30
60	Al4(PtBu2)6 â^' a Derivative of Al4H6 â^' and Other Al4 Species: A Challenge for Bonding Interpretation between Zintl Ions and Metalloid Clusters. Journal of the American Chemical Society, 2009, 131, 5698-5704.	13.7	29
61	Realization of an Alâ‰¡Al Triple Bond in the Gasâ€Phase Na 3 Al 2 â^' Cluster via Double Electronic Transmutation. Angewandte Chemie - International Edition, 2018, 57, 14060-14064.	13.8	29
62	Two Metalloid Ga22 Clusters Containing a Novel Ga22 Core with an Icosahedral Ga12 Center. Chemistry - A European Journal, 2004, 10, 1977-1981.	3.3	28
63	Isomeric Al₂R₄, Mg₂R₂ Species and Oligomerisation Products: Investigation of Alâ€“Al and Mgâ€“Mg Ïƒ Bonding. European Journal of Inorganic Chemistry, 2008, 2008, 4879-4890.	2.0	28
64	[Ga22{N(SiMe3)2}10]2â^': A Metalloid Cluster Compound with a Variation of the Ga22 Framework This work was supported by the Deutsche Forschungsgemeinschaft and the Fonds der Chemische Industrie.. Angewandte Chemie - International Edition, 2002, 41, 1882.	13.8	27
65	The Molecules AlO2, Al(O2)2, and Al(O2)3: Experimental and Quantum-Chemical Investigations on the Oxidation of Aluminum Atoms. Angewandte Chemie - International Edition, 2005, 44, 4261-4264.	13.8	27
66	Si@Al₅₆[N(2,6â€iPr₂C₆H₃)SiMe₃]₁₂: The Largest Neutral Metalloid Aluminum Cluster, a Molecular Model for a Siliconâ€Poor Aluminumâ€“Silicon Alloy?. Angewandte Chemie - International Edition, 2008, 47, 8201-8206.	13.8	27
67	A Chemical View of the Giant Au102(SR)44 (SR = P-Mercaptobenzoic Acid) Cluster: Metalloid Aluminum and Gallium Clusters as Path Making Examples of This Novel Type Open Our Eyes for Structure and Bonding of Metalloid Aun(SR)m (n > m) Clusters. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2011, 637, 15-23.	1.2	27
68	The First Dectection of Peroxo and Bis-superoxo Complexes of Aluminum: FAlO2 and FAlO4. Angewandte Chemie - International Edition, 2001, 40, 4696-4700.	13.8	26
69	From Icosahedral Boron Subhalides to Octahedral Metalloid Aluminum and Gallium Analogues: Quo vadis, Wade's Rules?. Angewandte Chemie - International Edition, 2007, 46, 5795-5798.	13.8	25
70	Modellbetrachtungen zum VerstÃndnis unerwarteter Eigenschaften der metalloiden Clusterverbindung [Ga84(N(SiMe3)2)20][Li6Br2(THF)20]Â·2Toluol. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2007, 633, 63-76.	1.2	25
71	[Ga16(PtBu2)10]: A Gallium Phosphide Sheathed Core of Four Naked Ga Atoms?. Angewandte Chemie - International Edition, 2003, 42, 1971-1974.	13.8	24
72	A Convenient Synthesis of Cyclopentadienylgallium - The Awakening of a Sleeping Beauty in Organometallic Chemistry. European Journal of Inorganic Chemistry, 2011, 2011, n/a-n/a.	2.0	24

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73	Donorâ€stabilisiertes Aluminium(II)â€bromid. Angewandte Chemie, 1994, 106, 946-948.	2.0	23
74	[Ga6R8]2- (Râ€Š=â€ŠSiPh2Me): Eine metalloide Clusterverbindung mit einem unerwarteten Ga6-GerÃ¼st. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2002, 628, 157-161.	1.2	23
75	Experimentally Based DFT Calculations on the Hindered Disproportionation of [Al₄Cp*₄]: Formation of Metalloid Clusters as Intermediates on the Way to Solid Al Prevents the Decomposition of a Textbook Molecule. Chemistry - A European Journal, 2009, 15, 12180-12183.	3.3	23
76	[Al(Al3R3)2]: Prototype of a Metalloid Al Cluster or a Sandwich-Stabilized Al Atom?. Angewandte Chemie - International Edition, 2007, 46, 3579-3583.	13.8	22
77	Nanostructural Element Modifications: Synthesis and Structure of Elementoid Gallium Clusters. ACS Symposium Series, 2002, , 154-167.	0.5	21
78	[Ga22(PtBu2)12]: Diversity in the Arrangement of 22 Gallium Atoms-A Unique Case in the Field of Metalloid Clusters?. Angewandte Chemie - International Edition, 2004, 43, 6549-6552.	13.8	21
79	Nanoscale Molecular Silver Cluster Compounds in Gram Quantities. Angewandte Chemie - International Edition, 2014, 53, 3064-3066.	13.8	20
80	Ga10Br10(4-tert-Butylpyridine)10: A Mixed-Valent Gallium(I) Subhalide as an Intermediate during the Formation of Elemental Gallium?. Angewandte Chemie - International Edition, 2005, 44, 2973-2975.	13.8	18
81	A Second Metalloid Ga18 Cluster and Its Topological Similarity to the High-Pressure Ga-II Modification. Chemistry - A European Journal, 2006, 12, 5429-5433.	3.3	17
82	Metastable Aluminum(I) Compounds: Experimental and Quantum Chemical Investigations on Aluminum(I) Phosphanidesâ€”An Alternative Channel to the Disproportionation Reaction?. Chemistry - A European Journal, 2009, 15, 13391-13398.	3.3	17
83	Al₁₂K₈[OC(CH₃)₃]₁₈: A Wade, Zintl, or Metalloid Cluster, or a Hybrid of All Three?. Angewandte Chemie - International Edition, 2010, 49, 3146-3150.	13.8	15
84	Ga₂₄Br₁₈Se₂: A Highly Symmetrical Metalloid Cluster and Its Oneâ€Dimensional Arrangement in the Crystalline State as a Model for the Photoconductivity of Solid GaSe. Angewandte Chemie - International Edition, 2007, 46, 6549-6552.	13.8	14
85	Synthesis, Structure, and Properties of Al(^Rbpy)₃ Complexes (R = t-Bu,) Tj ETQq1 1 0.784314 rgBT /Ov	4.0	14
86	Si@Al₁₄(N(Dipp)SiMe₃)₆: A Siâ€Centered Metalloid Aluminum Cluster and the Reinvestigation of Si@Al₁₄Cp*₆. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2009, 635, 423-430.	1.2	13
87	The Influence of a Single Transition Metal Atom on the Reactivity of Main Group Metal Clusters in the Gas Phase. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2014, 640, 2701-2707.	1.2	13
88	[Ga16(PtBu2)10]: ein mit Galliumphosphid ummantelter Kern aus vier nackten Ga-Atomen?. Angewandte Chemie, 2003, 115, 2016-2019.	2.0	12
89	The Anion [Mg6Cl8Cp*5]-:â€‰ A Final Intermediate on the Way to the Molecular Donor-Free Grignard Compound MgClCp*?. Organometallics, 2006, 25, 2101-2103.	2.3	12
90	Magnesium(I) Halide versus Magnesium Metal: Differences in Reaction Energy and Reactivity Monitored in Reduction Processes of Pâ^'Cl Bonds. Angewandte Chemie - International Edition, 2019, 58, 716-721.	13.8	9

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91	On the kinetics of the Al13â^'+Cl2 reaction: Cluster degradation in consecutive steps. Journal of Chemical Physics, 2009, 131, 174304.	3.0	7
92	Ga8Br8Â·6NEt3: Formation and Structure of Donor-Stabilized GaBr. A Nanoscaled Step on the Way to Î²-Gallium?. Journal of the American Chemical Society, 2010, 132, 1323-1327.	13.7	7
93	Ein molekulares Korrosionsmodell fÃ¼r Metalle?. Nachrichten Aus Der Chemie, 2008, 56, 999-1004.	0.0	6
94	K[Al₄(PPh₂)₇PPh]: An Al^{II} Phosphanide / Phosphinidene Intermediate on the Path to AlP Formation. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2013, 639, 2558-2560.	1.2	6
95	Low oxidation state aluminum-containing cluster anions: Cpâ^—AlnHâ^', n = 1â€“3. Journal of Chemical Physics, 2016, 145, 074305.	3.0	5
96	Synthesis, structure, and properties of a dialumane supported by pyrazolate ligands. Dalton Transactions, 2015, 44, 2956-2958.	3.3	4
97	Magnesium(I) Halide versus Magnesium Metal: Differences in Reaction Energy and Reactivity Monitored in Reduction Processes of Pâ^'Cl Bonds. Angewandte Chemie, 2019, 131, 726-731.	2.0	3
98	Inside Cover: Snapshots of the Alï£¿Al Ïƒ-Bond Formation Starting from {AlR2} Units: Experimental and Computational Observations (Angew. Chem. Int. Ed. 43/2009). Angewandte Chemie - International Edition, 2009, 48, 7942-7942.	13.8	1
99	Frontispiz: Magnesium(I) Halide versus Magnesium Metal: Differences in Reaction Energy and Reactivity Monitored in Reduction Processes of Pâ^'Cl Bonds. Angewandte Chemie, 2019, 131, .	2.0	0
100	Frontispiece: Magnesium(I) Halide versus Magnesium Metal: Differences in Reaction Energy and Reactivity Monitored in Reduction Processes of Pâ^'Cl Bonds. Angewandte Chemie - International Edition, 2019, 58, .	13.8	0