

# James D Martin

## List of Publications by Year in descending order

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84  
papers

2,918  
citations

186209

28  
h-index

175177

52  
g-index

90  
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90  
docs citations

90  
times ranked

3942  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tuning the Band Gap in Hybrid Tin Iodide Perovskite Semiconductors Using Structural Templating. <i>Inorganic Chemistry</i> , 2005, 44, 4699-4705.	1.9	452
2	Review of Cellulose Non-Derivatizing Solvent Interactions with Emphasis on Activity in Inorganic Molten Salt Hydrates. <i>ACS Sustainable Chemistry and Engineering</i> , 2013, 1, 858-870.	3.2	231
3	XANES Investigation of Phosphate Sorption in Single and Binary Systems of Iron and Aluminum Oxide Minerals. <i>Environmental Science &amp; Technology</i> , 2005, 39, 2152-2160.	4.6	201
4	Molecular scale characteristics of Cu(II) bonding in goethite-humate complexes. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 1355-1366.	1.6	176
5	University learning: Improve undergraduate science education. <i>Nature</i> , 2015, 523, 282-284.	13.7	122
6	Phosphate bonding configuration on ferrihydrite based on molecular orbital calculations and XANES fingerprinting. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 4405-4415.	1.6	109
7	Ionic Liquid Character of Zinc Chloride Hydrates Define Solvent Characteristics that Afford the Solubility of Cellulose. <i>Journal of Physical Chemistry B</i> , 2016, 120, 1134-1141.	1.2	82
8	Halozotypes: a New Generation of Zeolite-Type Materials. <i>Angewandte Chemie International Edition in English</i> , 1997, 36, 2072-2075.	4.4	76
9	Designing intermediate-range order in amorphous materials. <i>Nature</i> , 2002, 419, 381-384.	13.7	64
10	Crystalline and Liquid Structure of Zinc Chloride Trihydrate: A Unique Ionic Liquid. <i>Inorganic Chemistry</i> , 2015, 54, 1109-1119.	1.9	64
11	Report from the third workshop on future directions of solid-state chemistry: The status of solid-state chemistry and its impact in the physical sciences. <i>Progress in Solid State Chemistry</i> , 2008, 36, 1-133.	3.9	58
12	Metallotropic liquid crystals formed by surfactant templating of molten metal halides. <i>Nature Materials</i> , 2006, 5, 271-275.	13.3	50
13	Covalent linkage of [Mn <sub>4</sub> O <sub>2</sub> (O <sub>2</sub> CPh) <sub>6</sub> (dbm) <sub>2</sub> ] into a dimer and a one-dimensional polymer (dbmH =) $T_j ETQq110,784314$ $rgBT / Over$	2.0	46
14	Kinetics and Mechanism of the $\hat{I}^2-$ to $\hat{I}^\pm$ -CuAlCl <sub>4</sub> Phase Transition: A Time-Resolved $^{63}\text{Cu}$ MAS NMR and Powder X-ray Diffraction Study. <i>Journal of the American Chemical Society</i> , 2001, 123, 7564-7573.	6.6	43
15	Novel Chain and Oligomeric Condensed Cluster Phases for Gadolinium Iodides with Manganese Interstitials. <i>Inorganic Chemistry</i> , 1994, 33, 2079-2084.	1.9	42
16	LaI: An Unprecedented Binary Rare Earth Metal Monohalide with a NiAs-Type Structure. <i>Angewandte Chemie International Edition in English</i> , 1995, 34, 233-235.	4.4	42
17	Magnetic Bistability in a Cobalt Bis(dioxolene) Complex: Long-Lived Photoinduced Valence Tautomerism. <i>Inorganic Chemistry</i> , 2010, 49, 3162-3168.	1.9	38
18	Sorptive Reconstruction of the CuAlCl <sub>4</sub> Framework upon Reversible Ethylene Binding. <i>Journal of the American Chemical Society</i> , 2003, 125, 11065-11079.	6.6	37

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19	Mixed Anion (Phosphate/Oxalate) Bonding to Iron(III) Materials. Journal of the American Chemical Society, 2010, 132, 2301-2308.	6.6	36
20	Metal Halide Analogues of Chalcogenides: A Building Block Approach to the Rational Synthesis of Solid-State Materials. Chemistry of Materials, 1998, 10, 2699-2713.	3.2	35
21	Morphological, mechanical and gas-transport characteristics of crosslinked poly(propylene glycol): homopolymers, nanocomposites and blends. Polymer, 2004, 45, 5941-5950.	1.8	34
22	The Hydrogen-Bonded Framework of the First Anti-Zeotype: $[(H_2NEt_2)_2(CuCl_4)](AlCl_4)$ . Angewandte Chemie - International Edition, 1998, 37, 3318-3320.	7.2	33
23	Two Closely Related Structure Types with Unprecedented Bioctahedral Rare-Earth-Metal Clusters Centered by Transition Metals: $A_2R_1O_11Z_2$ (A = Rb, Cs; R = La, Ce, Pr; Z = Co, Ni, Ru, Os) and $La_1O_{11}Os_2$ . Journal of the American Chemical Society, 1997, 119, 513-520.	6.6	32
24	LaI: das erste wahre Seltenerdmetallmonohalogenid vom NiAs-Strukturtyp. Angewandte Chemie, 1995, 107, 234-236.	1.6	30
25	$\hat{\Gamma}^2$ -Mn(O <sub>2</sub> CMe) <sub>2</sub> : solvothermal synthesis and crystal structure of an unprecedented three-dimensional manganese (II) network. Chemical Communications, 1996, , 2419-2420.	2.2	30
26	Synthesis of $[NH_4]MnCl_2(OAc)$ and $[NH_4]_2MnCl_4(H_2O)_2$ by Solvothermal Dehydration and Structure/Property Correlations in a One-Dimensional Antiferromagnet. Inorganic Chemistry, 2004, 43, 3242-3247.	1.9	30
27	Benzene- $\pi$ -Copper(I) Coordination in a Bimetallic Chain Complex. Inorganic Chemistry, 1999, 38, 6200-6205.	1.9	28
28	Templated Synthesis of Cuprous Chloride Networks: Synthesis and Characterization of $[Hpy]Cu_3Cl_6$ and $\{[H_3NMe]_6Cl\}[H_3NMe]_2Cu_9Cl_{16}$ . Chemistry of Materials, 2001, 13, 392-399.	3.2	28
29	Transport properties of hectorite based nanocomposite single ion conductors. Journal of Power Sources, 2004, 128, 247-255.	4.0	28
30	Stability of Organically Modified Montmorillonites and Their Polystyrene Nanocomposites After Prolonged Thermal Treatment. Chemistry of Materials, 2007, 19, 2757-2767.	3.2	27
31	A comparison of heterometallic alkoxide molecules containing copper(I) or copper(II) and zirconium. Journal of Organometallic Chemistry, 1993, 449, 191-201.	0.8	26
32	The tungsten-tungsten triple bond. 17. Mixed amido-phosphido compounds for formula $M_2(PR_2)_2(NMe_2)_4$ . Comparisons of amido and phosphido ligation and bridged and unbridged isomers. Journal of the American Chemical Society, 1992, 114, 557-570.	6.6	24
33	Aligning Practice to Policies: Changing the Culture to Recognize and Reward Teaching at Research Universities. CBE Life Sciences Education, 2017, 16, es5.	1.1	23
34	Syntheses, Crystal Structures, and Magnetic Properties of $Sc_19Br_{28}Z_4$ Compounds with Z = Mn, Fe, Ru, or Os. Structural and Bonding Trends in $R_{16}X_{20}Z_4$ -Type Oligomers. Inorganic Chemistry, 1997, 36, 6413-6422.	1.9	22
35	Conformational and displacive degrees of freedom in the high-temperature plastic phase of the carbon tetrabromide $CBr_4$ . Physical Review B, 2008, 77, ...	1.1	22
36	Crystal Growth Simulations To Establish Physically Relevant Kinetic Parameters from the Empirical Kolmogorov-Johnson-Mehl-Avrami Model. Chemistry of Materials, 2013, 25, 3941-3951.	3.2	22

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37	The tungsten-tungsten triple bond—XVI. Bis(cyclopentadienyl)- and bis(indenyl)tetradimethylamidoditungsten ( $W_2$ ). Polyhedron, 1988, 7, 1991-1999.	1.0	20
38	Triple bonds between tungsten atoms with ancillary dimesitylboroalkoxide ligands. Preparations, properties and structures of $W_2(NMe_2)_4[OB(Mes)_2]_2$ and $W_2(OBut)_4[OB(Mes)_2]_2$ . Inorganica Chimica Acta, 1993, 213, 17-24.	1.2	20
39	Three Types of Condensed Cluster Phases of Rare-Earth Metal Iodides with Transition Metal Interstitials: $Pr_4I_5Ni$ , $Pr_3I_3Os$ , $Pr_2INi_2$ , and $La_2I_2Z$ . Journal of Solid State Chemistry, 1997, 129, 277-286.	1.4	20
40	Electronic Structure, Electrical and Magnetic Properties of $RMo_8O_{14}$ Compounds (R = La, Ce, Pr, Nd). Journal of Solid State Chemistry, 1997, 129, 277-286.	1.9	20
41	Effect of matrix crystal structure on ion abundance of carbohydrates by matrix-assisted laser desorption/ionization Fourier transform ion cyclotron resonance mass spectrometry. Rapid Communications in Mass Spectrometry, 2007, 21, 807-811.	0.7	20
42	Transition Zone Theory of Crystal Growth and Viscosity. Chemistry of Materials, 2015, 27, 3526-3532.	3.2	20
43	Sorptive Reconstruction of $CuMCl_4$ (M = Al and Ga) upon Small-Molecule Binding and the Competitive Binding of CO and Ethylene. Journal of the American Chemical Society, 2006, 128, 13463-13473.	6.6	19
44	$\hat{I}^{\pm}$ - and $\hat{I}^2$ - $CuAlCl_4$ : A Framework Construction Using Corner-Shared Tetrahedral Metal Halide Building Blocks. Inorganic Chemistry, 1998, 37, 1341-1346.	1.9	18
45	Property and Morphology Development in Nanocomposite Thermoplastic Elastomer Gels. Langmuir, 2005, 21, 3106-3115.	1.6	17
46	New Condensed Cluster Structure with Triple Metal Layers: $La_2INi_2$ and $La_2ICu_2$ . Synthesis, Structure, and Bonding. Inorganic Chemistry, 1998, 37, 3385-3390.	1.9	16
47	An Illuminating Framework: A Understanding the Photoluminescence of $\hat{I}^{\pm}$ - $CuAlCl_4$ . Journal of the American Chemical Society, 1999, 121, 10092-10097.	6.6	16
48	Experimental Determination of the Crystallization Phase-Boundary Velocity in the Halozetype CZX-1. Chemistry of Materials, 2013, 25, 3932-3940.	3.2	16
49	Particle Size Is a Primary Determinant for Sigmoidal Kinetics of Nanoparticle Formation: A Disproof of the Finke-Watzky (F-W) Nanoparticle Nucleation and Growth Mechanism. Chemistry of Materials, 2020, 32, 3651-3656.	3.2	16
50	Transition Zone Theory Compared to Standard Models: Reexamining the Theory of Crystal Growth from Melts. Journal of Physical Chemistry C, 2020, 124, 18724-18740.	1.5	15
51	$\hat{I}^{\pm}$ - $K_4R_6I_{14}O_s$ (R = La, Pr): A Novel Iodine-Rich Structure with a Layered Network of Electron-Poor Clusters. An Incipient Delocalized System with Metal-like Conductivity. Inorganic Chemistry, 1999, 38, 3825-3830.	1.9	14
52	Electronic Fine Tuning of the Structures of Reduced Rare-Earth Metal Halides. Inorganic Chemistry, 2001, 40, 389-395.	1.9	14
53	Stepwise activation of $f$ -thienyl ligands at di-tungsten centres. Journal of the Chemical Society Chemical Communications, 1994, , 683-684.	2.0	13
54	Benzene and ethylene binding to copper(I) zirconium(IV) chloride materials: The crystal structure and solid-state reactivity of $((bz)_2Cu)_2Zr_2Cl_{10} \cdot bz$ . Polyhedron, 2006, 25, 349-359.	1.0	13

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55	Two New Examples for the Unusual R12I17Z2-Structure Type: La12I17Fe2 and Ce12I17Mn2. <i>Journal of Solid State Chemistry</i> , 1996, 125, 249-254.	1.4	12
56	Understanding the Water-in-Salt to Salt-in-Water Characteristics across the Zinc Chloride : Water Phase Diagram. <i>Journal of Physical Chemistry B</i> , 2022, 126, 2265-2278.	1.2	12
57	Two new structural types for d3-d3 dimers of molybdenum and tungsten: [K(18-crown-6)]+[Mo2(OCH2But)7]â <sup>+</sup> and [W2{P(c-hexyl)2}3(OCH2But)3{HP(c-hexyl)2}]. <i>Polyhedron</i> , 1993, 12, 343-345.	1.0	11
58	Preparation, crystal structures, conductivities and electronic structures of [et]3[NiCl4]Â-H2O and [et]3[AuBr4] [et = bis(ethylenedithio)tetrathiafulvalene]. <i>Journal of the Chemical Society Dalton Transactions</i> , 1994, , 1995-2004.	1.1	11
59	Effect of Axial Interactions on the Formation of Mesophases: Comparison of the Phase Behavior of Dialkyl 2,2â€²-bipyridyl-4,4â€²-dicarboxylate Complexes of Pt(II), Pt(IV), and Pt(II)/Pt(IV) Molecular Alloys. <i>Chemistry of Materials</i> , 2012, 24, 4517-4530.	3.2	11
60	Twelve-electron tetranuclear tungsten alkoxide clusters are not tetrahedral. Preparation, structure and bonding in W4(O)(OPri)10 and W4(O)(Cl)(OPri)9. Comparisons with the bonding in carbonyl clusters. <i>Polyhedron</i> , 1990, 9, 1829-1841.	1.0	10
61	[H2NMe2]CuZrCl6:Â Hydrogen-Bond Induced Distortions in a Copper Zirconium Chloride Analogue of a Thiophosphate. <i>Inorganic Chemistry</i> , 1999, 38, 2369-2374.	1.9	10
62	From Rate Measurements to Mechanistic Data for Condensed Matter Reactions: A Case Study Using the Crystallization of [Zn(OH2)6][ZnCl4]. <i>Crystals</i> , 2017, 7, 11.	1.0	10
63	Structure-Property Relationships in Ionic Liquids. <i>ACS Symposium Series</i> , 2002, , 413-427.	0.5	9
64	Hexakis(Dimethylamido)Ditungsten and Tungsten(IV) Chloride. <i>Inorganic Syntheses</i> , 2007, , 137-140.	0.3	9
65	Nanostructure diffraction analysis of a copper/single walled carbon nanotube nanocomposite synthesized by Laser Surface Implanting. <i>Carbon</i> , 2017, 113, 1-9.	5.4	7
66	K-space algorithmic reconstruction (KAREN): a robust statistical methodology to separate Bragg and diffuse scattering. <i>Journal of Applied Crystallography</i> , 2020, 53, 159-169.	1.9	7
67	Comments on the Molecular Structure and Bonding In [W4Cl(O)(OiPr)9] and [W4(O)(OiPr)10]. Analogies with Tetranuclear Carbonyl Clusters. <i>Angewandte Chemie International Edition in English</i> , 1989, 28, 1368-1370.	4.4	6
68	Reassessing the Regioregularity of <i>N</i>-(-1-Naphthyl)-<i>N</i>-â€²-(<i>N</i>-octadecyl)polycarbodiimide Using Solution Infrared Spectroscopy. <i>Macromolecules</i> , 2011, 44, 5064-5067.	2.2	6
69	Transition zone theory of the glass transition. <i>Journal of Non-Crystalline Solids</i> , 2018, 491, 24-33.	1.5	6
70	Anmerkungen zu MolekÃ¼lstruktur und BindungsverhÃ¼ltnissen in [W<sub>4</sub>Cl(O)(O<i>i</i>Pr)<sub>9</sub>] und [W<sub>4</sub>(O)(O<i>i</i>Pr)<sub>10</sub>]; Analogien mit vierkernigen Carbonylclustern. <i>Angewandte Chemie</i> , 1989, 101, 1399-1400.	1.6	5
71	A tetranuclear tungsten carbido alkoxide cluster with a hydride ligand: W4(?-C)(NMe)(OCH2Bu t )11(H). <i>Journal of Cluster Science</i> , 1993, 4, 105-117.	1.7	4
72	Synthesis and characterization of Cu2ZrCl6: a thermochromic, van Vleck paramagnet. <i>Journal of Alloys and Compounds</i> , 2002, 338, 173-184.	2.8	4

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73	Beyond the Textbook: A First-Year Introduction to Research at a Research I University. <i>Journal of Chemical Education</i> , 1998, 75, 325.	1.1	3
74	From the Wood-Shop to Crystal Engineering: Teaching Three-Dimensional Chemistry. <i>Journal of Chemical Education</i> , 2001, 78, 1195.	1.1	3
75	Isotope Effects Reveal the Template Influence on the Crystal Growth of a Metal-Halide Network. <i>Journal of Physical Chemistry C</i> , 2019, 123, 7475-7485.	1.5	3
76	Let science be a springboard for politics. <i>Nature</i> , 2017, 546, 577-577.	13.7	3
77	Synthesis of luminescent nitroxobenzene oligomers by aluminum chloride catalyzed dehydration of nitrobenzene. <i>Polyhedron</i> , 2016, 103, 35-43.	1.0	2
78	[Et <sub>3</sub> PH][W <sub>4</sub> O <sub>3</sub> Cl <sub>7</sub> (PEt <sub>3</sub> ) <sub>3</sub> ]. A 12-electron tetrahedral tungsten cluster with an interesting arrangement of ligands. <i>Journal of Cluster Science</i> , 1993, 4, 259-269.	1.7	1
79	Metal Halide Framework Solids: Analogs of Aluminosilicates and Aluminophosphates. <i>ACS Symposium Series</i> , 1999, , 28-38.	0.5	1
80	Synthesis and structural characterization of tricarbomethoxymethanate complexes of copper(II) and barium(II) and evaluation of their suitability for MOCVD applications. <i>New Journal of Chemistry</i> , 2001, 25, 400-407.	1.4	1
81	A Nonlinear, "Sticky" Web of Study for Chemistry: A Graphical Curricular Tool for Teaching and Learning Chemistry Built upon the Interconnection of Core Chemical Principles. <i>Journal of Chemical Education</i> , 2018, 95, 2134-2140.	1.1	1
82	Understanding the Photoluminescence of Copper Aluminum Halide Phosphors. <i>Materials Research Society Symposia Proceedings</i> , 1999, 560, 39.	0.1	0
83	Hydrogen Bonding in Metal Halides: Lattice Effects and Electronic Distortions. , 0, , 267-277.		0
84	Reply to "A Comparison of the Stochastic and Deterministic Approaches in a Nucleation-Growth Type Model of Nanoparticle Formation". <i>Chemistry of Materials</i> , 2021, 33, 5437-5445.	3.2	0