

# James D Martin

## List of Publications by Year in descending order

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84  
papers

2,918  
citations

186209

28  
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175177

52  
g-index

90  
all docs

90  
docs citations

90  
times ranked

3942  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	Transition Zone Theory Compared to Standard Models: Reexamining the Theory of Crystal Growth from Melts. <i>Journal of Physical Chemistry C</i> , 2020, 124, 18724-18740.	1.5	15
4	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. <i>Chemistry of Materials</i> , 2020, 32, 3651-3656.	3.2	16
5	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
6	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
7	Transition zone theory of the glass transition. <i>Journal of Non-Crystalline Solids</i> , 2018, 491, 24-33.	1.5	6
8	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
9	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
10	Aligning Practice to Policies: Changing the Culture to Recognize and Reward Teaching at Research Universities. <i>CBE Life Sciences Education</i> , 2017, 16, es5.	1.1	23
11	From Rate Measurements to Mechanistic Data for Condensed Matter Reactions: A Case Study Using the Crystallization of $[Zn(OH)_2]_6[ZnCl_4]$ . <i>Crystals</i> , 2017, 7, 11.	1.0	10
12	Let science be a springboard for politics. <i>Nature</i> , 2017, 546, 577-577.	13.7	3
13	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
14	Synthesis of luminescent nitroxobenzene oligomers by aluminum chloride catalyzed dehydration of nitrobenzene. <i>Polyhedron</i> , 2016, 103, 35-43.	1.0	2
15	University learning: Improve undergraduate science education. <i>Nature</i> , 2015, 523, 282-284.	13.7	122
16	Crystalline and Liquid Structure of Zinc Chloride Trihydrate: A Unique Ionic Liquid. <i>Inorganic Chemistry</i> , 2015, 54, 1109-1119.	1.9	64
17	Transition Zone Theory of Crystal Growth and Viscosity. <i>Chemistry of Materials</i> , 2015, 27, 3526-3532.	3.2	20
18	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

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19	Crystal Growth Simulations To Establish Physically Relevant Kinetic Parameters from the Empirical Kolmogorov-Johnson-Mehl-Avrami Model. <i>Chemistry of Materials</i> , 2013, 25, 3941-3951.	3.2	22
20	Experimental Determination of the Crystallization Phase-Boundary Velocity in the Halozeotype CZX-1. <i>Chemistry of Materials</i> , 2013, 25, 3932-3940.	3.2	16
21	Effect of Axial Interactions on the Formation of Mesophases: Comparison of the Phase Behavior of Dialkyl 2,2'-bipyridyl-4,4'-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
22	Reassessing the Regioregularity of $\alpha$ -(1-Naphthyl)- $\omega$ -octadecyl polycarbodiimide Using Solution Infrared Spectroscopy. <i>Macromolecules</i> , 2011, 44, 5064-5067.	2.2	6
23	Magnetic Bistability in a Cobalt Bis(dioxolene) Complex: Long-Lived Photoinduced Valence Tautomerism. <i>Inorganic Chemistry</i> , 2010, 49, 3162-3168.	1.9	38
24	Mixed Anion (Phosphate/Oxalate) Bonding to Iron(III) Materials. <i>Journal of the American Chemical Society</i> , 2010, 132, 2301-2308.	6.6	36
25	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
26	Coupled orientational and displacive degrees of freedom in the high-temperature plastic phase of the carbon tetrabromide $CBr_4$ . <i>Physical Review B</i> , 2008, 77, .	1.1	22
27	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
28	Stability of Organically Modified Montmorillonites and Their Polystyrene Nanocomposites After Prolonged Thermal Treatment. <i>Chemistry of Materials</i> , 2007, 19, 2757-2767.	3.2	27
29	Hexakis(Dimethylamido)Ditungsten and Tungsten(IV) Chloride. <i>Inorganic Syntheses</i> , 2007, , 137-140.	0.3	9
30	Effect of matrix crystal structure on ion abundance of carbohydrates by matrix-assisted laser desorption/ionization Fourier transform ion cyclotron resonance mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2007, 21, 807-811.	0.7	20
31	Sorptive Reconstruction of $CuMCl_4$ (M = Al and Ga) upon Small-Molecule Binding and the Competitive Binding of CO and Ethylene. <i>Journal of the American Chemical Society</i> , 2006, 128, 13463-13473.	6.6	19
32	Metallotropic liquid crystals formed by surfactant templating of molten metal halides. <i>Nature Materials</i> , 2006, 5, 271-275.	13.3	50
33	Benzene and ethylene binding to copper(I) zirconium(IV) chloride materials: The crystal structure and solid-state reactivity of $(C_6H_6)_2Cu_2ZrCl_{10} \cdot bz$ . <i>Polyhedron</i> , 2006, 25, 349-359.	1.0	13
34	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
35	Property and Morphology Development in Nanocomposite Thermoplastic Elastomer Gels. <i>Langmuir</i> , 2005, 21, 3106-3115.	1.6	17
36	Tuning the Band Gap in Hybrid Tin Iodide Perovskite Semiconductors Using Structural Templating. <i>Inorganic Chemistry</i> , 2005, 44, 4699-4705.	1.9	452

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37	Transport properties of hectorite based nanocomposite single ion conductors. <i>Journal of Power Sources</i> , 2004, 128, 247-255.	4.0	28
38	Morphological, mechanical and gas-transport characteristics of crosslinked poly(propylene glycol): homopolymers, nanocomposites and blends. <i>Polymer</i> , 2004, 45, 5941-5950.	1.8	34
39	Synthesis of $[\text{NH}_4]\text{MnCl}_2(\text{OAc})$ and $[\text{NH}_4]_2\text{MnCl}_4(\text{H}_2\text{O})_2$ by Solvothermal Dehydration and Structure/Property Correlations in a One-Dimensional Antiferromagnet. <i>Inorganic Chemistry</i> , 2004, 43, 3242-3247.	1.9	30
40	Sorptive Reconstruction of the $\text{CuAlCl}_4$ Framework upon Reversible Ethylene Binding. <i>Journal of the American Chemical Society</i> , 2003, 125, 11065-11079.	6.6	37
41	Electronic Structure, Electrical and Magnetic Properties of $\text{RMO}_8\text{O}_{14}$ Compounds (R = La, Ce, Pr, Nd,) <i>Tj ETQq1 1 0,784314 rgBT /Over</i>	1.9	20
42	Structure-Property Relationships in Ionic Liquids. <i>ACS Symposium Series</i> , 2002, , 413-427.	0.5	9
43	Synthesis and characterization of $\text{Cu}_2\text{ZrCl}_6$ : a thermochromic, van Vleck paramagnet. <i>Journal of Alloys and Compounds</i> , 2002, 338, 173-184.	2.8	4
44	Designing intermediate-range order in amorphous materials. <i>Nature</i> , 2002, 419, 381-384.	13.7	64
45	Templated Synthesis of Cuprous Chloride Networks: Synthesis and Characterization of $[\text{Hpy}]\text{Cu}_3\text{Cl}_6$ and $\{[\text{H}_3\text{NMe}_6\text{Cl}][\text{H}_3\text{NMe}]_2\text{Cu}_9\text{Cl}_{16}\}$ . <i>Chemistry of Materials</i> , 2001, 13, 392-399.	3.2	28
46	From the Wood-Shop to Crystal Engineering: Teaching Three-Dimensional Chemistry. <i>Journal of Chemical Education</i> , 2001, 78, 1195.	1.1	3
47	Molecular scale characteristics of Cu(II) bonding in goethite-humate complexes. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 1355-1366.	1.6	176
48	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
49	Electronic Fine Tuning of the Structures of Reduced Rare-Earth Metal Halides. <i>Inorganic Chemistry</i> , 2001, 40, 389-395.	1.9	14
50	Kinetics and Mechanism of the $\hat{I}^2$ - to $\hat{I}^\pm$ - $\text{CuAlCl}_4$ 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
51	An Illuminating Framework: Understanding the Photoluminescence of $\hat{I}^\pm$ - $\text{CuAlCl}_4$ . <i>Journal of the American Chemical Society</i> , 1999, 121, 10092-10097.	6.6	16
52	Benzene-Copper(I) Coordination in a Bimetallic Chain Complex. <i>Inorganic Chemistry</i> , 1999, 38, 6200-6205.	1.9	28
53	$[\text{H}_2\text{NMe}_2]\text{CuZrCl}_6$ : Hydrogen-Bond Induced Distortions in a Copper Zirconium Chloride Analogue of a Thiophosphate. <i>Inorganic Chemistry</i> , 1999, 38, 2369-2374.	1.9	10
54	$\hat{I}^\pm$ - $\text{K}_4\text{R}_6\text{I}_{14}\text{O}_s$ (R = La, Pr): A Novel Iodine-Rich Structure with a Layered Network of Electron-Poor Clusters. An Incipient Delocalized System with Metal-like Conductivity. <i>Inorganic Chemistry</i> , 1999, 38, 3825-3830.	1.9	14

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55	Understanding the Photoluminescence of Copper Aluminum Halide Phosphors. Materials Research Society Symposia Proceedings, 1999, 560, 39.	0.1	0
56	Metal Halide Framework Solids: Analogs of Aluminosilicates and Aluminophosphates. ACS Symposium Series, 1999, , 28-38.	0.5	1
57	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
58	The Hydrogen-Bonded Framework of the First Anti-Zeotype: $[(H_2NEt_2)_2(CuCl_4)]_n[AlCl_4]_n$ . Angewandte Chemie - International Edition, 1998, 37, 3318-3320.	7.2	33
59	New Condensed Cluster Structure with Triple Metal Layers: $La_2Ni_2$ and $La_2Cu_2$ . Synthesis, Structure, and Bonding. Inorganic Chemistry, 1998, 37, 3385-3390.	1.9	16
60	Beyond the Textbook: A First-Year Introduction to Research at a Research I University. Journal of Chemical Education, 1998, 75, 325.	1.1	3
61	$\hat{1}\pm$ - and $\hat{1}^2$ - $CuAlCl_4$ : Framework Construction Using Corner-Shared Tetrahedral Metal-Halide Building Blocks. Inorganic Chemistry, 1998, 37, 1341-1346.	1.9	18
62	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 $La_1O_11Os_2$ . Journal of the American Chemical Society, 1997, 119, 513-520.	6.6	32
63	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 $R_16X_{20}Z_4$ -Type Oligomers. Inorganic Chemistry, 1997, 36, 6413-6422.	1.9	22
64	Halozeotypes: a New Generation of Zeolite-Type Materials. Angewandte Chemie International Edition in English, 1997, 36, 2072-2075.	4.4	76
65	Three Types of Condensed Cluster Phases of Rare-Earth Metal Iodides with Transition Metal Interstitials: $Pr_4I_5Ni$ , $Pr_3I_3Os$ , $Pr_2I_2Ni_2$ , and $La_2I_2Z_2$ . Journal of Solid State Chemistry, 1997, 129, 277-286.	1.4	20
66	$\hat{1}^2$ - $Mn(O_2CMe)_2$ : solvothermal synthesis and crystal structure of an unprecedented three-dimensional manganese (II) network. Chemical Communications, 1996, , 2419-2420.	2.2	30
67	Two New Examples for the Unusual $R_12I_17Z_2$ -Structure Type: $La_{12}I_{17}Fe_2$ and $Ce_{12}I_{17}Mn_2$ . Journal of Solid State Chemistry, 1996, 125, 249-254.	1.4	12
68	$LaI$ : das erste wahre Seltenerdmetallmonohalogenid vom $NiAs$ -Strukturtyp. Angewandte Chemie, 1995, 107, 234-236.	1.6	30
69	$LaI$ : An Unprecedented Binary Rare Earth Metal Monohalide with a $NiAs$ -Type Structure. Angewandte Chemie International Edition in English, 1995, 34, 233-235.	4.4	42
70	Covalent linkage of $[Mn_4O_2(O_2CPh)_6(dbm)_2]$ into a dimer and a one-dimensional polymer (dbmH =) Tj ETQq0 0 0,rgBT /Overlock 10 Tf	2.9	46
71	Preparation, crystal structures, conductivities and electronic structures of $[et]_3[NiCl_4] \cdot nH_2O$ and $[et]_3[AuBr_4]$ [et = bis(ethylenedithio)tetrathiafulvalene]. Journal of the Chemical Society Dalton Transactions, 1994, , 1995-2004.	1.1	11
72	Stepwise activation of $\eta^5$ -thienyl ligands at di-tungsten centres. Journal of the Chemical Society Chemical Communications, 1994, , 683-684.	2.0	13

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73	Novel Chain and Oligomeric Condensed Cluster Phases for Gadolinium Iodides with Manganese Interstitials. <i>Inorganic Chemistry</i> , 1994, 33, 2079-2084.	1.9	42
74	Triple bonds between tungsten atoms with ancillary dimesitylboroalkoxide ligands. Preparations, properties and structures of $W_2(NMe_2)_4[OB(Mes)_2]_2$ and $W_2(OBut)_4[OB(Mes)_2]_2$ . <i>Inorganica Chimica Acta</i> , 1993, 213, 17-24.	1.2	20
75	A comparison of heterometallic alkoxide molecules containing copper(I) or copper(II) and zirconium. <i>Journal of Organometallic Chemistry</i> , 1993, 449, 191-201.	0.8	26
76	A tetranuclear tungsten carbido alkoxide cluster with a hydride ligand: $W_4(?-C)(NMe)(OCH_2Bu t)_11(H)$ . <i>Journal of Cluster Science</i> , 1993, 4, 105-117.	1.7	4
77	$[Et_3PH][W_4O_3Cl_7(PEt_3)_3]$ . 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
78	Two new structural types for d <sup>3</sup> -d <sup>3</sup> dimers of molybdenum and tungsten: $[K(18-crown-6)]^+ [Mo_2(OCH_2But)_7]^-$ and $[W_2\{P(c-hexyl)_2\}_3(OCH_2But)_3\{HP(c-hexyl)_2\}]$ . <i>Polyhedron</i> , 1993, 12, 343-345.	1.0	11
79	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. <i>Journal of the American Chemical Society</i> , 1992, 114, 557-570.	6.6	24
80	Twelve-electron tetranuclear tungsten alkoxide clusters are not tetrahedral. Preparation, structure and bonding in $W_4(O)(OPri)_{10}$ and $W_4(O)(Cl)(OPri)_9$ . Comparisons with the bonding in carbonyl clusters. <i>Polyhedron</i> , 1990, 9, 1829-1841.	1.0	10
81	Anmerkungen zu Molekülstruktur und Bindungsverhältnissen in $[W_4Cl(O)(OiPr)_9]$ und $[W_4(O)(OiPr)_{10}]$ ; Analogien mit vierkernigen Carbonylclustern. <i>Angewandte Chemie</i> , 1989, 101, 1399-1400.	1.6	5
82	Comments on the Molecular Structure and Bonding In $[W_4Cl(O)(OiPr)_9]$ and $[W_4(O)(OiPr)_{10}]$ . Analogies with Tetranuclear Carbonyl Clusters. <i>Angewandte Chemie International Edition in English</i> , 1989, 28, 1368-1370.	4.4	6
83	The tungsten-tungsten triple bond—XVI. Bis(cyclopentadienyl)- and bis(indenyl)tetradimethylamidoditungsten ( $W_4-1/4W$ ). <i>Polyhedron</i> , 1988, 7, 1991-1999.	1.0	20
84	Hydrogen Bonding in Metal Halides: Lattice Effects and Electronic Distortions. , 0, , 267-277.		0