

Wieslaw J Roth

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118
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#	Paper	IF	Citations
118	A new family of mesoporous molecular sieves prepared with liquid crystal templates. <i>Journal of the American Chemical Society</i> , 1992 , 114, 10834-10843	16.4	9328
117	Two-dimensional zeolites: current status and perspectives. <i>Chemical Reviews</i> , 2014 , 114, 4807-37	68.1	520
116	Effect of Surfactant/Silica Molar Ratios on the Formation of Mesoporous Molecular Sieves: Inorganic Mimicry of Surfactant Liquid-Crystal Phases and Mechanistic Implications. <i>Chemistry of Materials</i> , 1994 , 6, 2317-2326	9.6	466
115	Molecular or Supramolecular Templating: Defining the Role of Surfactant Chemistry in the Formation of Microporous and Mesoporous Molecular Sieves. <i>Chemistry of Materials</i> , 1994 , 6, 1816-1821	9.6	347
114	A family of zeolites with controlled pore size prepared using a top-down method. <i>Nature Chemistry</i> , 2013 , 5, 628-33	17.6	309
113	Zeolite-based materials for novel catalytic applications: Opportunities, perspectives and open problems. <i>Catalysis Today</i> , 2012 , 179, 2-15	5.3	247
112	Two-dimensional zeolites: dream or reality?. <i>Catalysis Science and Technology</i> , 2011 , 1, 43	5.5	235
111	The ADOR mechanism for the synthesis of new zeolites. <i>Chemical Society Reviews</i> , 2015 , 44, 7177-206	58.5	213
110	The discovery of mesoporous molecular sieves from the twenty year perspective. <i>Chemical Society Reviews</i> , 2013 , 42, 3663-70	58.5	190
109	Postsynthesis transformation of three-dimensional framework into a lamellar zeolite with modifiable architecture. <i>Journal of the American Chemical Society</i> , 2011 , 133, 6130-3	16.4	180
108	Layer like porous materials with hierarchical structure. <i>Chemical Society Reviews</i> , 2016 , 45, 3400-38	58.5	159
107	Synthesis of Unfeasible Zeolites. <i>Nature Chemistry</i> , 2016 , 8, 58-62	17.6	146
106	Two-dimensional zeolites in catalysis: current status and perspectives. <i>Catalysis Science and Technology</i> , 2016 , 6, 2467-2484	5.5	137
105	Expanded view of zeolite structures and their variability based on layered nature of 3-D frameworks. <i>Microporous and Mesoporous Materials</i> , 2011 , 142, 32-36	5.3	113
104	PFG NMR self-diffusion of small hydrocarbons in high silica DDR, CHA and LTA structures. <i>Microporous and Mesoporous Materials</i> , 2008 , 109, 327-334	5.3	109
103	3D to 2D Routes to Ultrathin and Expanded Zeolitic Materials. <i>Chemistry of Materials</i> , 2013 , 25, 542-547	9.6	66
102	MCM-22 zeolite family and the delaminated zeolite MCM-56 obtained in one-step synthesis. <i>Studies in Surface Science and Catalysis</i> , 2005 , 19-26	1.8	61

101	Development of a formation mechanism for M41S materials. <i>Studies in Surface Science and Catalysis</i> , 1994 , 84, 53-60	1.8	59
100	A new double bond metathesis reaction: conversion of an niobium:niobium and an nitrogen:nitrogen bond into two niobium:nitrogen bonds. <i>Journal of the American Chemical Society</i> , 1984 , 106, 4749-4751	16.4	57
99	Discovery of new MWW family zeolite EMM-10: Identification of EMM-10P as the missing MWW precursor with disordered layers. <i>Microporous and Mesoporous Materials</i> , 2011 , 142, 168-177	5.3	56
98	Synthesis of Delaminated and Pillared Zeolitic Materials. <i>Studies in Surface Science and Catalysis</i> , 2007 , 168, 221-239	1.8	55
97	Pillared MWW zeolites MCM-36 prepared by swelling MCM-22P in concentrated surfactant solutions. <i>Catalysis Today</i> , 2012 , 179, 35-42	5.3	50
96	Swelling and Interlayer Chemistry of Layered MWW Zeolites MCM-22 and MCM-56 with High Al Content. <i>Chemistry of Materials</i> , 2015 , 27, 4620-4629	9.6	48
95	Swelling of MCM-56 and MCM-22P with a new medium surfactant tetramethylammonium hydroxide mixtures. <i>Catalysis Today</i> , 2013 , 204, 8-14	5.3	44
94	The discovery of ExxonMobil's M41S family of mesoporous molecular sieves. <i>Studies in Surface Science and Catalysis</i> , 2004 , 148, 53-72	1.8	43
93	High acidity unilamellar zeolite MCM-56 and its pillared and delaminated derivatives. <i>Dalton Transactions</i> , 2014 , 43, 10501-11	4.3	41
92	Electron crystallography of zeolites--the MWW family as a test of direct 3D structure determination. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2005 , 61, 516-27		41
91	Structural studies of the vanadium (II) and vanadium(III) chloride tetrahydrofuran solvates. <i>Journal of the Chemical Society Chemical Communications</i> , 1983 , 1377		40
90	Comprehensive system integrating 3D and 2D zeolite structures with recent new types of layered geometries. <i>Catalysis Today</i> , 2014 , 227, 9-14	5.3	39
89	Comparative structural studies of the first row early transition metal(III) chloride tetrahydrofuran solvates. <i>Inorganica Chimica Acta</i> , 1986 , 113, 81-85	2.7	38
88	Zeolite MCM-22 Modified with Au and Cu for Catalytic Total Oxidation of Methanol and Carbon Monoxide. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 2147-2159	3.8	36
87	Synthesis and characterization of niobium(II) and tantalum(II) compounds containing triple M-M bonds. <i>Journal of the American Chemical Society</i> , 1987 , 109, 5506-5514	16.4	36
86	Synthesis by spontaneous self-assembly of metal atom clusters of zirconium, niobium, and tantalum. <i>Journal of the American Chemical Society</i> , 1988 , 110, 298-300	16.4	36
85	A series of edge-sharing bioctahedral, M-M bonded molecules: nonmonotonic bond length variation and its interpretation. <i>Journal of the American Chemical Society</i> , 1986 , 108, 971-976	16.4	35
84	Discrete trinuclear complexes of niobium and tantalum related to the local structure in niobium chloride, Nb ₃ Cl ₈ . <i>Inorganic Chemistry</i> , 1988 , 27, 3413-3421	5.1	34

83	Two compounds containing the tris(μ -chloro)hexakis(tetrahydrofuran)divanadium(II) cation. Preparation, structures, and spectroscopic characterization. <i>Inorganic Chemistry</i> , 1985 , 24, 913-917	5.1	34
82	Intercalation chemistry of NU-6(1), the layered precursor to zeolite NSI, leading to the pillared zeolite MCM-39(Si). <i>Microporous and Mesoporous Materials</i> , 2011 , 144, 158-161	5.3	32
81	Synthesis of mesoporous molecular sieves. <i>Studies in Surface Science and Catalysis</i> , 2005 , 157, 91-110	1.8	32
80	Reactions of dinuclear niobium(III) and tantalum(III) compounds with alkyl isocyanides to give dinuclear products with dimerized isocyanides. <i>Journal of the American Chemical Society</i> , 1984 , 106, 6987-6993 ³¹	16.4	29
79	Theoretical investigation of layered zeolite frameworks: Interaction between IPC-1P layers derived from zeolite UTL. <i>Catalysis Today</i> , 2013 , 204, 15-21	5.3	30
78	The role of symmetry in building up zeolite frameworks from layered zeolite precursors having ferrierite and CAS layers. <i>Structural Chemistry</i> , 2010 , 21, 385-390	1.8	29
77	Mononuclear and binuclear cationic complexes of vanadium(II). <i>Journal of the American Chemical Society</i> , 1985 , 107, 3850-3855	16.4	29
76	Intercalation chemistry of layered zeolite precursor IPC-1P. <i>Catalysis Today</i> , 2014 , 227, 37-44	5.3	27
75	Iron-Based Metal-Organic Frameworks as a Theranostic Carrier for Local Tuberculosis Therapy. <i>Pharmaceutical Research</i> , 2018 , 35, 144	4.5	27
74	Preparation of exfoliated zeolites from layered precursors: The role of pH and nature of intercalating media. <i>Studies in Surface Science and Catalysis</i> , 2002 , 141, 273-279	1.8	26
73	Advances and challenges in zeolite synthesis and catalysis. <i>Catalysis Today</i> , 2020 , 345, 2-13	5.3	26
72	Further studies of the phosphine complexes of niobium(IV) chloride. <i>Inorganic Chemistry</i> , 1984 , 23, 3592-3596	5.3	25
71	New chemistry of oxo trinuclear, metal-metal bonded niobium compounds. <i>Journal of the Chemical Society Chemical Communications</i> , 1986 , 1276-1278		25
70	A new layered MWW zeolite synthesized with the bifunctional surfactant template and the updated classification of layered zeolite forms obtained by direct synthesis. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 7701-7709	13	24
69	Reactions of tert-butyl isocyanide with a binuclear niobium(III) compound. <i>Journal of the American Chemical Society</i> , 1983 , 105, 3734-3735	16.4	24
68	An octanuclear basic benzoate containing four vanadium(III) and four zinc(II) atoms: [VZnO(O ₂ CC ₆ H ₅) ₃ (THF)] ₄ ·2THF. <i>Inorganic Chemistry</i> , 1984 , 23, 4042-4045	5.1	24
67	Activity enhancement of zeolite MCM-22 by interlayer expansion enabling higher Ce loading and room temperature CO oxidation. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 15722-15725	13	22
66	The sorption properties of as-synthesized and calcined MCM-41 and MCM-48. <i>Microporous and Mesoporous Materials</i> , 2001 , 44-45, 691-695	5.3	22

65	Preparation and structure of bis[bis(diphenylphosphino)methane]hexachlorodiniobium(III), Nb ₂ Cl ₆ (dppm) ₂ . <i>Inorganic Chemistry</i> , 1983 , 22, 3654-3656	5.1	22
64	A neutron diffraction crystallographic study of the tetramethylammonium salt of the hexachlorobis(μ-chloro)(μ-hydrido)dimolybdenum(III) ion, [Mo ₂ Cl ₈ H] ₃ ⁻ . <i>Journal of the American Chemical Society</i> , 1984 , 106, 117-120	16.4	22
63	Binuclear alkoxide complexes of niobium and tantalum in lower oxidation states. <i>Inorganic Chemistry</i> , 1985 , 24, 3509-3510	5.1	22
62	Swelling and pillaring of the layered precursor IPC-1P: tiny details determine everything. <i>Dalton Transactions</i> , 2014 , 43, 10548-57	4.3	20
61	Characterization of mesoporous molecular sieves: differences between M41s and pillared layered zeolites. <i>Studies in Surface Science and Catalysis</i> , 2000 , 129, 501-508	1.8	20
60	MWW and MFI Frameworks as Model Layered Zeolites: Structures, Transformations, Properties, and Activity. <i>ACS Catalysis</i> , 2021 , 11, 2366-2396	13.1	20
59	A new family of two-dimensional zeolites prepared from the intermediate layered precursor IPC-3P obtained during the synthesis of TUN zeolite. <i>Chemistry - A European Journal</i> , 2013 , 19, 13937-45	4.8	19
58	The preparation of Ta ₂ Cl ₆ (PhN) ₂ (Me ₂ S) ₂ by reaction of Ta ₂ Cl ₆ (Me ₂ S) ₃ with PhNNPh: Crystal structure of the product. <i>Polyhedron</i> , 1986 , 5, 895-898	2.7	19
57	Further studies of bi-oxo-capped triniobium cluster complexes. <i>Inorganic Chemistry</i> , 1988 , 27, 2347-2352	5.1	19
56	Framework-substituted cerium MCM-22 zeolite and its interlayer expanded derivative MWW-IEZ. <i>Catalysis Science and Technology</i> , 2016 , 6, 2742-2753	5.5	19
55	Liquid dispersions of zeolite monolayers with high catalytic activity prepared by soft-chemical exfoliation. <i>Science Advances</i> , 2020 , 6, eaay8163	14.3	18
54	Preparation and structural characterization of Rh ₂ (O ₂ CCPh ₃) ₄ (EtOH) ₂ , Ru ₂ (O ₂ CCPh ₃) ₄ (H ₂ O)(EtOH) ₂ ·EtOH and Mo ₂ (O ₂ CCPh ₃) ₄ ·2CH ₂ Cl ₂ . <i>Inorganica Chimica Acta</i> , 1994 , 215, 9-15	2.7	18
53	A dinuclear, metal-metal bonded, carboxylato-bridged niobium(III) complex. <i>Inorganica Chimica Acta</i> , 1986 , 112, 147-152	2.7	18
52	Variable stereochemistry of the eight-coordinate tetrakis(oxalato)niobate(IV), Nb(C ₂ O ₄) ₄ ⁻ . <i>Inorganic Chemistry</i> , 1987 , 26, 2889-2893	5.1	18
51	Crystal structures of two MoOX ₂ L ₃ complexes, dichlorotris(methyldiphenylphosphine)oxomolybdenum and tris(diethylphenylphosphine)diisocyanatooxomolybdenum. Implications to distortional isomerism. <i>Inorganic Chemistry</i> , 1987 , 26, 2848-2852	5.1	18
50	Further studies of low-valent alkoxide complexes of niobium. Synthesis and structure of dimeric niobium(IV) nonamethoxide. <i>Inorganic Chemistry</i> , 1988 , 27, 3596-3600	5.1	18
49	New bi-oxo-capped triangular trinuclear cluster compounds of niobium. <i>Journal of the American Chemical Society</i> , 1984 , 106, 3527-3531	16.4	18
48	New bromo complexes of osmium(IV) and osmium(III): [Os ₂ Br ₁₀] ₂ ⁻ and OsBr ₃ (PPh ₃) ₂ (CH ₃ CN). <i>Inorganic Chemistry</i> , 1984 , 23, 3080-3083	5.1	18

47	Facile evaluation of the crystallization and quality of the transient layered zeolite MCM-56 by infrared spectroscopy. <i>Catalysis Today</i> , 2015 , 243, 39-45	5.3	17
46	A metal-metal-bonded dinuclear phosphine complex of niobium(IV) chloride, [NbCl ₂ (PMe ₂ Ph) ₂] ₂ (μ-Cl) ₄ . <i>Inorganic Chemistry</i> , 1984 , 23, 945-947	5.1	17
45	Vanadium(II) and niobium(III) edge-sharing bioctahedral complexes that contain bis(dimethylphosphino)methane bridges. <i>Inorganic Chemistry</i> , 1985 , 24, 4389-4393	5.1	17
44	UTL zeolite and the way beyond. <i>Microporous and Mesoporous Materials</i> , 2013 , 182, 229-238	5.3	16
43	Further studies of phosphine adducts of niobium(IV) and tantalum(IV) chlorides: New seven- and eight-coordinate compounds with trimethylphosphine: NbCl ₄ (PMe ₃) ₃ and Ta ₂ Cl ₈ (PMe ₃) ₄ . <i>Polyhedron</i> , 1985 , 4, 1103-1108	2.7	16
42	A novel d ¹⁰ -d ³ -d ¹⁰ trinuclear bimetallic linear complex of zinc and vanadium. <i>Inorganic Chemistry</i> , 1985 , 24, 525-527	5.1	16
41	Alkoxide complexes of niobium(III). <i>Inorganic Chemistry</i> , 1987 , 26, 3323-3327	5.1	15
40	Synthesis and characterization of osmyl-amino acid complexes. Molecular structure of trans-dioxobis(glycinato)osmium(VI), OsO ₂ (NH ₂ CH ₂ COO) ₂ . <i>Inorganic Chemistry</i> , 1981 , 20, 2023-2026	5.1	15
39	Characterization of Co and Fe-MCM-56 catalysts for NH-SCR and NO decomposition: An in situ FTIR study. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018 , 196, 281-288	4.4	14
38	Application of quasi-equilibrated thermodesorption of linear and di-branched paraffin molecules for detailed porosity characterization of the mono-layered zeolite MCM-56, in comparison with MCM-22 and ZSM-5. <i>Dalton Transactions</i> , 2014 , 43, 10574-83	4.3	14
37	A novel dinuclear vanadium(II) compound with bridging chlorine atoms, bridging diphosphinomethane ligands, and bidentate tetrahydroborate ligands. <i>Inorganic Chemistry</i> , 1984 , 23, 4113-4115	5.1	14
36	Interconversion of the CDO Layered Precursor ZSM-55 between FER and CDO Frameworks by Controlled Deswelling and Reassembly. <i>Chemistry of Materials</i> , 2016 , 28, 3616-3619	9.6	13
35	Preparation and structures of the binuclear vanadium(II) complexes [L ₃ V(ECl) ₃ VL ₃]BPh ₄ (L = tetrahydrofuran or 3-methyltetrahydrofuran). <i>Polyhedron</i> , 1987 , 6, 1433-1437	2.7	13
34	Incorporation of Ti as a Pyramidal Framework Site in the Mono-Layered MCM-56 Zeolite and its Oxidation Activity. <i>ChemCatChem</i> , 2019 , 11, 520-527	5.2	12
33	The aqueous colloidal suspension of ultrathin 2D MCM-22P crystallites. <i>Chemical Communications</i> , 2014 , 50, 7378-81	5.8	12
32	Dinuclear niobium(IV) complexes, Nb ₂ Cl ₄ (OMe) ₄ L ₂ , (L = MeOH, CH ₃ CN) and their relation to analogous W and Mo compounds. <i>Inorganic Chemistry</i> , 1987 , 26, 3319-3322	5.1	12
31	Two compounds containing a divanadium tetrabenzoate frame and cyclopentadienyl or pentamethylcyclopentadienyl ligands. <i>Organometallics</i> , 1985 , 4, 1174-1177	3.8	12
30	Pillaring of layered zeolite precursors with ferrierite topology leading to unusual molecular sieves on the micro/mesoporous border. <i>Dalton Transactions</i> , 2018 , 47, 3029-3037	4.3	11

29	Facile synthesis of the cubic mesoporous material MCM-48. Detailed study of accompanying phase transformations. <i>Adsorption</i> , 2009 , 15, 221-226	2.6	11
28	The crystal and molecular structure of $\text{Re}_2\text{Cl}_6(\text{PMePh}_2)_2$. <i>Inorganica Chimica Acta</i> , 1988 , 144, 17-19	2.7	11
27	Structural characterization of a doubly-bonded diniobium compound, bis-(1,2-bis-diphenylphosphinoethane)hexachlorodiniobium(III). <i>Inorganica Chimica Acta</i> , 1983 , 71, 175-178	2.7	11
26	Reactions of niobium(III) and tantalum(III) compounds with acetylenes. 5. Preparation and structure of $[\text{NbCl}_2(\text{SC}_4\text{H}_8)(\text{PhCCPh})]_2(\text{m}-\text{Cl})_2$ and its relationship to other alkyne complexes of niobium(III) and tantalum(III). <i>Inorganica Chimica Acta</i> , 1984 , 85, 17-21	2.7	11
25	Synthesis and characterization of a confacial bioctahedral tantalum(II) dimer with a formal triple metal-metal bond. <i>Journal of the American Chemical Society</i> , 1986 , 108, 3538-3539	16.4	10
24	Incorporation and release of a model drug, ciprofloxacin, from non-modified SBA-15 molecular sieves with different pore sizes. <i>Microporous and Mesoporous Materials</i> , 2020 , 294, 109903	5.3	10
23	Preparation, molecular structure and electronic structure of the rhombic, six-coordinate niobium(IV) complex $\text{NbCl}_2(\text{ButC}(\text{O})\text{CHC}(\text{O})\text{But})_2$. <i>Polyhedron</i> , 1985 , 4, 1485-1491	2.7	9
22	The effect of hot liquid water treatment on the properties and catalytic activity of MWW zeolites with various layered structures. <i>Catalysis Today</i> , 2018 , 304, 22-29	5.3	8
21	Structural transformation and chemical modifications of the unusual layered zeolite MWW form SSZ-70. <i>Catalysis Today</i> , 2020 , 354, 133-140	5.3	8
20	Electron crystallography of MWW zeolites [filling the missing cone]. <i>Zeitschrift für Kristallographie</i> , 2011 , 226, 254-263		7
19	Discrete trinuclear complexes of niobium related to the local structure in Nb_3Cl_8 . <i>Journal of the American Chemical Society</i> , 1987 , 109, 2833-2834	16.4	7
18	Preparation and structure of $\text{Nb}_3\text{Cl}_8(\text{CNCMe}_3)_5$. <i>Inorganica Chimica Acta</i> , 1987 , 126, 161-166	2.7	7
17	Preparation and properties of $\text{NbBr}_4(\text{PMe}_2\text{Ph})_3$ and $\text{NbBr}_3(\text{PMe}_2\text{Ph})_3$. <i>Inorganica Chimica Acta</i> , 1985 , 105, 41-49	2.7	7
16	Osmium carbohydrate polymers. <i>Polyhedron</i> , 1982 , 1, 335-338	2.7	7
15	Two diastereomeric forms of the bischelated, edge-sharing bioctahedral molecule bis[bis(diethylphosphino)ethane]hexachloroditantalum. <i>Inorganic Chemistry</i> , 1987 , 26, 4130-4133	5.1	6
14	An unusual ditantalum (Ta:Ta) compound with a bridging oxo ligand. <i>Inorganic Chemistry</i> , 1983 , 22, 868-870	2.7	6
13	A binuclear tantalum(III) complex with a bridging carboxylato ligand. <i>Polyhedron</i> , 1985 , 4, 1479-1484	2.7	6
12	Binuclear cationic bromo complexes of vanadium(II). <i>Polyhedron</i> , 1988 , 7, 737-740	2.7	5

11	Exfoliated Ferrierite-Related Unilamellar Nanosheets in Solution and Their Use for Preparation of Mixed Zeolite Hierarchical Structures. <i>Journal of the American Chemical Society</i> , 2021 , 143, 11052-11062	16.4	5
10	The structure-catalytic activity relationship for the transient layered zeolite MCM-56 with MWW topology. <i>Catalysis Today</i> , 2020 , 345, 116-124	5.3	5
9	Oxo-bridged Ta(+3) dimers, (TaCl ₂ L ₂) ₂ (EO)(ESR ₂), revisited. Structural differences between isoelectronic EO and EOH complexes. <i>Inorganica Chimica Acta</i> , 1988 , 149, 105-110	2.7	4
8	Crystal structure of MCM-71 a new zeolite in the mordenite group. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2008 , 223, 456-460	1	3
7	Proposed reformulation of the recently reported tribromobis(dimethylphenylphosphine)tantalum. <i>Inorganic Chemistry</i> , 1986 , 25, 1728-1729	5.1	3
6	Hybrid Catalysts for Olefin Metathesis and Related Polymerizations 2013 , 1-26		2
5	Nucleation in complex multi-component and multi-phase systems: general discussion. <i>Faraday Discussions</i> , 2015 , 179, 503-42	3.6	1
4	Detemplated and Pillared 2-Dimensional Zeolite ZSM-55 with Ferrierite Layer Topology as a Carrier for Drugs. <i>Molecules</i> , 2020 , 25,	4.8	1
3	Structure-Catalytic Properties Relationship in Friedel Crafts Alkylation Reaction for MCM-36-Type Zeolites Obtained by Isopropanol-Assisted Pillaring. <i>Catalysts</i> , 2021 , 11, 299	4	0
2	Mixed zeolite hybrids combining the MFI structure with exfoliated MWW monolayers. <i>Microporous and Mesoporous Materials</i> , 2021 , 324, 111300	5.3	0
1	A comparison of the sorption properties of mesoporous molecular sieves MCM-41 and MCM-48. <i>Studies in Surface Science and Catalysis</i> , 2003 , 146, 339-341	1.8	