Wieslaw J Roth

List of Publications by Year in Descending Order

118 papers	14,886 citations	34 h-index	122 g-index
128 ext. papers	15,760 ext. citations	8.2 avg, IF	6.02 L-index

#	Paper	IF	Citations
118	Exfoliated Ferrierite-Related Unilamellar Nanosheets in Solution and Their Use for Preparation of Mixed Zeolite Hierarchical Structures. *Journal of the American Chemical Society*, **2021**, 143, 11052-11062	16.4	5
117	MWW and MFI Frameworks as Model Layered Zeolites: Structures, Transformations, Properties, and Activity. *ACS Catalysis*, **2021**, 11, 2366-2396	13.1	20
116	Structure-Catalytic Properties Relationship in Friedel Crafts Alkylation Reaction for MCM-36-Type Zeolites Obtained by Isopropanol-Assisted Pillaring. *Catalysts*, **2021**, 11, 299	4	0
115	Mixed zeolite hybrids combining the MFI structure with exfoliated MWW monolayers. *Microporous and Mesoporous Materials*, **2021**, 324, 111300	5.3	0
114	Liquid dispersions of zeolite monolayers with high catalytic activity prepared by soft-chemical exfoliation. *Science Advances*, **2020**, 6, eaay8163	14.3	18
113	Incorporation and release of a model drug, ciprofloxacin, from non-modified SBA-15 molecular sieves with different pore sizes. *Microporous and Mesoporous Materials*, **2020**, 294, 109903	5.3	10
112	Detemplated and Pillared 2-Dimensional Zeolite ZSM-55 with Ferrierite Layer Topology as a Carrier for Drugs. *Molecules*, **2020**, 25,	4.8	1
111	Structural transformation and chemical modifications of the unusual layered zeolite MWW form SSZ-70. *Catalysis Today*, **2020**, 354, 133-140	5.3	8
110	The structure-catalytic activity relationship for the transient layered zeolite MCM-56 with MWW topology. *Catalysis Today*, **2020**, 345, 116-124	5.3	5
109	Advances and challenges in zeolite synthesis and catalysis. *Catalysis Today*, **2020**, 345, 2-13	5.3	26
108	A new layered MWW zeolite synthesized with the bifunctional surfactant template and the updated classification of layered zeolite forms obtained by direct synthesis. *Journal of Materials Chemistry A*, **2019**, 7, 7701-7709	13	24
107	Incorporation of Ti as a Pyramidal Framework Site in the Mono-Layered MCM-56 Zeolite and its Oxidation Activity. *ChemCatChem*, **2019**, 11, 520-527	5.2	12
106	Characterization of Co and Fe-MCM-56 catalysts for NH-SCR and NO decomposition: An in situ FTIR study. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2018**, 196, 281-288	4.4	14
105	Pillaring of layered zeolite precursors with ferrierite topology leading to unusual molecular sieves on the micro/mesoporous border. *Dalton Transactions*, **2018**, 47, 3029-3037	4.3	11
104	The effect of hot liquid water treatment on the properties and catalytic activity of MWW zeolites with various layered structures. *Catalysis Today*, **2018**, 304, 22-29	5.3	8
103	Iron-Based Metal-Organic Frameworks as a Theranostic Carrier for Local Tuberculosis Therapy. *Pharmaceutical Research*, **2018**, 35, 144	4.5	27
102	Layer like porous materials with hierarchical structure. *Chemical Society Reviews*, **2016**, 45, 3400-38	58.5	159

101	Interconversion of the CDO Layered Precursor ZSM-55 between FER and CDO Frameworks by Controlled Deswelling and Reassembly. *Chemistry of Materials*, **2016**, 28, 3616-3619	9.6	13
100	Two-dimensional zeolites in catalysis: current status and perspectives. *Catalysis Science and Technology*, **2016**, 6, 2467-2484	5.5	137
99	Synthesis of ‘unfeasible’ zeolites. *Nature Chemistry*, **2016**, 8, 58-62	17.6	146
98	Framework-substituted cerium MCM-22 zeolite and its interlayer expanded derivative MWW-IEZ. *Catalysis Science and Technology*, **2016**, 6, 2742-2753	5.5	19
97	Nucleation in complex multi-component and multi-phase systems: general discussion. *Faraday Discussions*, **2015**, 179, 503-42	3.6	1
96	Swelling and Interlayer Chemistry of Layered MWW Zeolites MCM-22 and MCM-56 with High Al Content. *Chemistry of Materials*, **2015**, 27, 4620-4629	9.6	48
95	The ADOR mechanism for the synthesis of new zeolites. *Chemical Society Reviews*, **2015**, 44, 7177-206	58.5	213
94	Facile evaluation of the crystallization and quality of the transient layered zeolite MCM-56 by infrared spectroscopy. *Catalysis Today*, **2015**, 243, 39-45	5.3	17
93	Comprehensive system integrating 3D and 2D zeolite structures with recent new types of layered geometries. *Catalysis Today*, **2014**, 227, 9-14	5.3	39
92	Two-dimensional zeolites: current status and perspectives. *Chemical Reviews*, **2014**, 114, 4807-37	68.1	520
91	Swelling and pillaring of the layered precursor IPC-1P: tiny details determine everything. *Dalton Transactions*, **2014**, 43, 10548-57	4.3	20
90	The aqueous colloidal suspension of ultrathin 2D MCM-22P crystallites. *Chemical Communications*, **2014**, 50, 7378-81	5.8	12
89	Activity enhancement of zeolite MCM-22 by interlayer expansion enabling higher Ce loading and room temperature CO oxidation. *Journal of Materials Chemistry A*, **2014**, 2, 15722-15725	13	22
88	High acidity unilamellar zeolite MCM-56 and its pillared and delaminated derivatives. *Dalton Transactions*, **2014**, 43, 10501-11	4.3	41
87	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. *Dalton Transactions*, **2014**, 43, 10574-83	4.3	14
86	Intercalation chemistry of layered zeolite precursor IPC-1P. *Catalysis Today*, **2014**, 227, 37-44	5.3	27
85	Hybrid Catalysts for Olefin Metathesis and Related Polymerizations **2013**, 1-26		2
84	Zeolite MCM-22 Modified with Au and Cu for Catalytic Total Oxidation of Methanol and Carbon Monoxide. *Journal of Physical Chemistry C*, **2013**, 117, 2147-2159	3.8	36

83	Swelling of MCM-56 and MCM-22P with a new medium □surfactant□tetramethylammonium hydroxide mixtures. *Catalysis Today*, **2013**, 204, 8-14	5.3	44
82	Theoretical investigation of layered zeolite frameworks: Interaction between IPC-1P layers derived from zeolite UTL. *Catalysis Today*, **2013**, 204, 15-21	5.3	30
81	3D to 2D Routes to Ultrathin and Expanded Zeolitic Materials. *Chemistry of Materials*, **2013**, 25, 542-547	9.6	66
80	The discovery of mesoporous molecular sieves from the twenty year perspective. *Chemical Society Reviews*, **2013**, 42, 3663-70	58.5	190
79	UTL zeolite and the way beyond. *Microporous and Mesoporous Materials*, **2013**, 182, 229-238	5.3	16
78	A family of zeolites with controlled pore size prepared using a top-down method. *Nature Chemistry*, **2013**, 5, 628-33	17.6	309
77	A new family of two-dimensional zeolites prepared from the intermediate layered precursor IPC-3P obtained during the synthesis of TUN zeolite. *Chemistry - A European Journal*, **2013**, 19, 13937-45	4.8	19
76	Pillared MWW zeolites MCM-36 prepared by swelling MCM-22P in concentrated surfactant solutions. *Catalysis Today*, **2012**, 179, 35-42	5.3	50
75	Zeolite-based materials for novel catalytic applications: Opportunities, perspectives and open problems. *Catalysis Today*, **2012**, 179, 2-15	5.3	247
74	Two-dimensional zeolites: dream or reality?. *Catalysis Science and Technology*, **2011**, 1, 43	5.5	235
73	Postsynthesis transformation of three-dimensional framework into a lamellar zeolite with modifiable architecture. *Journal of the American Chemical Society*, **2011**, 133, 6130-3	16.4	180
72	Discovery of new MWW family zeolite EMM-10: Identification of EMM-10P as the missing MWW precursor with disordered layers. *Microporous and Mesoporous Materials*, **2011**, 142, 168-177	5.3	56
71	Expanded view of zeolite structures and their variability based on layered nature of 3-D frameworks. *Microporous and Mesoporous Materials*, **2011**, 142, 32-36	5.3	113
70	Intercalation chemistry of NU-6(1), the layered precursor to zeolite NSI, leading to the pillared zeolite MCM-39(Si). *Microporous and Mesoporous Materials*, **2011**, 144, 158-161	5.3	32
69	Electron crystallography of MWW zeolites □filling the missing cone. *Zeitschrift F□ Kristallographie*, **2011**, 226, 254-263		7
68	The role of symmetry in building up zeolite frameworks from layered zeolite precursors having ferrierite and CAS layers. *Structural Chemistry*, **2010**, 21, 385-390	1.8	29
67	Facile synthesis of the cubic mesoporous material MCM-48. Detailed study of accompanying phase transformations. *Adsorption*, **2009**, 15, 221-226	2.6	11
66	Crystal structure of MCM-71 □a new zeolite in the mordenite group. *Zeitschrift Fur Kristallographie - Crystalline Materials*, **2008**, 223, 456-460	1	3

65	PFG NMR self-diffusion of small hydrocarbons in high silica DDR, CHA and LTA structures. *Microporous and Mesoporous Materials*, **2008**, 109, 327-334	5.3	109
64	Synthesis of Delaminated and Pillared Zeolitic Materials. *Studies in Surface Science and Catalysis*, **2007**, 168, 221-239	1.8	55
63	Electron crystallography of zeolites--the MWW family as a test of direct 3D structure determination. *Acta Crystallographica Section A: Foundations and Advances*, **2005**, 61, 516-27		41
62	MCM-22 zeolite family and the delaminated zeolite MCM-56 obtained in one-step synthesis. *Studies in Surface Science and Catalysis*, **2005**, 19-26	1.8	61
61	Synthesis of mesoporous molecular sieves. *Studies in Surface Science and Catalysis*, **2005**, 157, 91-110	1.8	32
60	The discovery of ExxonMobil's M41S family of mesoporous molecular sieves. *Studies in Surface Science and Catalysis*, **2004**, 148, 53-72	1.8	43
59	A comparison of the sorption properties of mesoporous molecular sieves MCM-41 and MCM-48. *Studies in Surface Science and Catalysis*, **2003**, 146, 339-341	1.8	
58	Preparation of exfoliated zeolites from layered precursors: The role of pH and nature of intercalating media. *Studies in Surface Science and Catalysis*, **2002**, 141, 273-279	1.8	26
57	The sorption properties of as-synthesized and calcined MCM-41 and MCM-48. *Microporous and Mesoporous Materials*, **2001**, 44-45, 691-695	5.3	22
56	Characterization of mesoporous molecular sieves: differences between M41s and pillared layered zeolites. *Studies in Surface Science and Catalysis*, **2000**, 129, 501-508	1.8	20
55	Preparation and structural characterization of Rh2(O2CCPh3)4(EtOH)2, Ru2(O2CCPh3)4(H2O)(EtOH)·2EtOH and Mo2(O2CCPh3)4·3CH2Cl2. *Inorganica Chimica Acta*, **1994**, 215, 9-15	2.7	18
54	Molecular or Supramolecular Templating: Defining the Role of Surfactant Chemistry in the Formation of Microporous and Mesoporous Molecular Sieves. *Chemistry of Materials*, **1994**, 6, 1816-1821	9.6	347
53	Development of a formation mechanism for M41S materials. *Studies in Surface Science and Catalysis* , **1994**, 84, 53-60	1.8	59
52	Effect of Surfactant/Silica Molar Ratios on the Formation of Mesoporous Molecular Sieves: Inorganic Mimicry of Surfactant Liquid-Crystal Phases and Mechanistic Implications. *Chemistry of Materials*, **1994**, 6, 2317-2326	9.6	466
51	A new family of mesoporous molecular sieves prepared with liquid crystal templates. *Journal of the American Chemical Society*, **1992**, 114, 10834-10843	16.4	9328
50	Binuclear cationic ·bromo complexes of vanadium(II). *Polyhedron*, **1988**, 7, 737-740	2.7	5
49	The crystal and molecular structure of Re 2 CI 6 (PMePh 2) 2. *Inorganica Chimica Acta*, **1988**, 144, 17-19	2.7	11
48	Oxo-bridged Ta(+3) dimers, (TaCl2L2)2(·O)(·SR2), revisited. Structural differences between isoelectronic ·O and ·OH complexes. *Inorganica Chimica Acta*, **1988**, 149, 105-110	2.7	4

47	Synthesis by spontaneous self-assembly of metal atom clusters of zirconium, niobium, and tantalum. *Journal of the American Chemical Society*, **1988**, 110, 298-300	16.4	36
46	Further studies of low-valent alkoxide complexes of niobium. Synthesis and structure of dimeric niobium(IV) nonamethoxide. *Inorganic Chemistry*, **1988**, 27, 3596-3600	5.1	18
45	Discrete trinuclear complexes of niobium and tantalum related to the local structure in niobium chloride, Nb3Cl8. *Inorganic Chemistry*, **1988**, 27, 3413-3421	5.1	34
44	Further studies of bi-oxo-capped triniobium cluster complexes. *Inorganic Chemistry*, **1988**, 27, 2347-2352	5.1	19
43	Two diastereomeric forms of the bischelated, edge-sharing bioctahedral molecule bis[bis(diethylphosphino)ethane]hexachloroditantalum. *Inorganic Chemistry*, **1987**, 26, 4130-4133	5.1	6
42	Alkoxide complexes of niobium(III). *Inorganic Chemistry*, **1987**, 26, 3323-3327	5.1	15
41	Dinuclear niobium(IV) complexes, Nb2Cl4(OMe)4L2, (L = MeOH, CH3CN) and their relation to analogous W and Mo compounds. *Inorganic Chemistry*, **1987**, 26, 3319-3322	5.1	12
40	Variable stereochemistry of the eight-coordinate tetrakis(oxalato)niobate(IV), Nb(C2O4)44-. *Inorganic Chemistry*, **1987**, 26, 2889-2893	5.1	18
39	Crystal structures of two MoOX2L3 complexes, dichlorotris(methyldiphenylphosphine)oxomolybdenum and tris(diethylphenylphosphine)diisocyanatooxomolybdenum. Implications to distortional isomerism. *Inorganic Chemistry*, **1987**, 26, 2848-2852	5.1	18
38	Synthesis and characterization of niobium(II) and tantalum(II) compounds containing triple M-M bonds. *Journal of the American Chemical Society*, **1987**, 109, 5506-5514	16.4	36
37	Discrete trinuclear complexes of niobium related to the local structure in Nb3Cl8. *Journal of the American Chemical Society*, **1987**, 109, 2833-2834	16.4	7
36	Preparation and structures of the binuclear vanadium(II) complexes [L3V(□Cl)3VL3]BPh4 (L = tetrahydrofuran or 3-methyltetrahydrofuran). *Polyhedron*, **1987**, 6, 1433-1437	2.7	13
35	Preparation and structure of Nb3Cl8(CNCMe3)5. *Inorganica Chimica Acta*, **1987**, 126, 161-166	2.7	7
34	A dinuclear, metal-metal bonded, carboxylato-bridged niobium(III) complex. *Inorganica Chimica Acta*, **1986**, 112, 147-152	2.7	18
33	Comparative structural studies of the first row early transition metal(III) chloride tetrahydrofuran solvates. *Inorganica Chimica Acta*, **1986**, 113, 81-85	2.7	38
32	The preparation of Ta2Cl6(PhN)2(Me2S)2 by reaction of Ta2Cl6(Me2S)3 with PhNNPh: Crystal structure of the product. *Polyhedron*, **1986**, 5, 895-898	2.7	19
31	New chemistry of oxo trinuclear, metal□metal bonded niobium compounds. *Journal of the Chemical Society Chemical Communications*, **1986**, 1276-1278		25
30	A series of edge-sharing bioctahedral, M-M bonded molecules: nonmonotonic bond length variation and its interpretation. *Journal of the American Chemical Society*, **1986**, 108, 971-976	16.4	35

29	Proposed reformulation of the recently reported tribromobis(dimethylphenylphosphine)tantalum. *Inorganic Chemistry*, **1986**, 25, 1728-1729	5.1	3
28	Synthesis and characterization of a confacial bioctahedral tantalum(II) dimer with a formal triple metal-metal bond. *Journal of the American Chemical Society*, **1986**, 108, 3538-3539	16.4	10
27	Further studies of phosphine adducts of niobium(IV) and tantalum(IV) chlorides: New seven- and eight-coordinate compounds with trimethylphosphine: NbCl4(PMe3)3 and Ta2Cl8(PMe3)4. *Polyhedron*, **1985**, 4, 1103-1108	2.7	16
26	A binuclear tantalum(III) complex with a bridging carboxylato ligand. *Polyhedron*, **1985**, 4, 1479-1484	2.7	6
25	Preparation, molecular structure and electronic structure of the rhombic, six-coordinate niobium(IV) complex NbCl2(ButC(O)CHC(O)But)2. *Polyhedron*, **1985**, 4, 1485-1491	2.7	9
24	Preparation and properties of NbBr4(PMe2Ph)3 and NbBr3(PMe2Ph)3. *Inorganica Chimica Acta*, **1985**, 105, 41-49	2.7	7
23	Two compounds containing a divanadium tetrabenzoate frame and cyclopentadienyl or pentamethylcyclopentadienyl ligands. *Organometallics*, **1985**, 4, 1174-1177	3.8	12
22	Two compounds containing the tris(.mu.-chloro)hexakis(tetrahydrofuran)divanadium(II) cation. Preparation, structures, and spectroscopic characterization. *Inorganic Chemistry*, **1985**, 24, 913-917	5.1	34
21	Vanadium(II) and niobium(III) edge-sharing bioctahedral complexes that contain bis(dimethylphosphino)methane bridges. *Inorganic Chemistry*, **1985**, 24, 4389-4393	5.1	17
20	Binuclear alkoxide complexes of niobium and tantalum in lower oxidation states. *Inorganic Chemistry*, **1985**, 24, 3509-3510	5.1	22
19	Mononuclear and binuclear cationic complexes of vanadium(II). *Journal of the American Chemical Society*, **1985**, 107, 3850-3855	16.4	29
18	A novel d10-d3-d10 trinuclear bimetallic linear complex of zinc and vanadium. *Inorganic Chemistry*, **1985**, 24, 525-527	5.1	16
17	New bi-oxo-capped triangular trinuclear cluster compounds of niobium. *Journal of the American Chemical Society*, **1984**, 106, 3527-3531	16.4	18
16	Reactions of niobium(III) and tantalum(III) compounds with acetylenes. 5. Preparation and structure of [NbCl2(SC4H8)(PhCCPh)]2(m -Cl)2 and its relationship to other alkyne complexes of niobium(III) and tantalum(III). *Inorganica Chimica Acta*, **1984**, 85, 17-21	2.7	11
15	A metal-metal-bonded dinuclear phosphine complex of niobium(IV) chloride, [NbCl2(PMe2Ph)2]2(.mu.-Cl)4. *Inorganic Chemistry*, **1984**, 23, 945-947	5.1	17
14	Further studies of the phosphine complexes of niobium(IV) chloride. *Inorganic Chemistry*, **1984**, 23, 3592-3596	5.1	25
13	New bromo complexes of osmium(IV) and osmium(III): [Os2Br10]2- and OsBr3(PPh3)2(CH3CN). *Inorganic Chemistry*, **1984**, 23, 3080-3083	5.1	18
12	A novel dinuclear vanadium(II) compound with bridging chlorine atoms, bridging diphosphinomethane ligands, and bidentate tetrahydroborate ligands. *Inorganic Chemistry*, **1984**, 23, 4113-4115	5.1	14

11	A neutron diffraction crystallographic study of the tetramethylammonium salt of the hexachlorobis(.mu.-chloro)(.mu.-hydrido)dimolybdenum(III) ion, [Mo2Cl8H]3-. *Journal of the American Chemical Society*, **1984**, 106, 117-120	16.4	22
10	A new double bond metathesis reaction: conversion of an niobium:niobium and an nitrogen:nitrogen bond into two niobium:nitrogen bonds. *Journal of the American Chemical Society*, **1984**, 106, 4749-4751	16.4	57
9	An octanuclear basic benzoate containing four vanadium(III) and four zinc(II) atoms: [VZnO(O2CC6H5)3(THF)]4.2THF. *Inorganic Chemistry*, **1984**, 23, 4042-4045	5.1	24
8	Reactions of dinuclear niobium(III) and tantalum(III) compounds with alkyl isocyanides to give dinuclear products with dimerized isocyanides. *Journal of the American Chemical Society*, **1984**, 106, 6987-6993	16.4	31
7	Structural characterization of a doubly-bonded diniobium compound, bis-(1,2-bis-diphenylphosphinoethane)hexachlorodiniobium(III). *Inorganica Chimica Acta*, **1983**, 71, 175-178	2.7	11
6	Preparation and structure of bis[bis(diphenylphosphino)methane]hexachlorodiniobium(III), Nb2Cl6(dppm)2. *Inorganic Chemistry*, **1983**, 22, 3654-3656	5.1	22
5	An unusual ditantalum (Ta:Ta) compound with a bridging oxo ligand. *Inorganic Chemistry*, **1983**, 22, 868-870	5.1	6
4	Reactions of tert-butyl isocyanide with a binuclear niobium(III) compound. *Journal of the American Chemical Society*, **1983**, 105, 3734-3735	16.4	24
3	Structural studies of the vanadium (II) and vanadium(III) chloride tetrahydrofuran solvates. *Journal of the Chemical Society Chemical Communications*, **1983**, 1377		40
2	Osmium carbohydrate polymers. *Polyhedron*, **1982**, 1, 335-338	2.7	7
1	Synthesis and characterization of osmyl-amino acid complexes. Molecular structure of trans-dioxobis(glycinato)osmium(VI), OsO2(NH2CH2COO)2. *Inorganic Chemistry*, **1981**, 20, 2023-2026	5.1	15