Mateusz Dembowski

List of Publications by Year
in descending order

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		567144	642610
38	566	15	23
papers	citations	h-index	g-index

41	41	41	452
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Boehmite and Gibbsite Nanoplates for the Synthesis of Advanced Alumina Products. ACS Applied Nano Materials, 2018, 1, 7115-7128.	2.4	79
2	Solution ³¹P NMR Study of the Acid-Catalyzed Formation of a Highly Charged {U₂₄Pp₁₂} Nanocluster, [(UO₂)₂₄(O₂)₂₄(P₂O₇)₁₂]^{48â€“} and Its Structural Characterization in the Solid State Using Single-Crystal Neutron Diffraction. Journal of the American Chemical Society, 2016, 138, 8547-8553.	13.6	35
3	Computationally-Guided Assignment of Unexpected Signals in the Raman Spectra of Uranyl Triperoxide Complexes. Inorganic Chemistry, 2017, 56, 1574-1580.	1.9	35
4	Ab Initio Molecular Dynamics Reveal Spectroscopic Siblings and Ion Pairing as New Challenges for Elucidating Prenucleation Aluminum Speciation. Journal of Physical Chemistry B, 2018, 122, 7394-7402.	1.2	34
5	In Situ ²⁷Al NMR Spectroscopy of Aluminate in Sodium Hydroxide Solutions above and below Saturation with Respect to Gibbsite. Inorganic Chemistry, 2018, 57, 11864-11873.	1.9	33
6	Complexity of Uranyl Peroxide Cluster Speciation from Alkali-Directed Oxidative Dissolution of Uranium Dioxide. Inorganic Chemistry, 2018, 57, 9296-9305.	1.9	29
7	Unraveling Gibbsite Transformation Pathways into LiAl-LDH in Concentrated Lithium Hydroxide. Inorganic Chemistry, 2019, 58, 12385-12394.	1.9	29
8	Uranyl Peroxide Cage Cluster Solubility in Water and the Role of the Electrical Double Layer. Inorganic Chemistry, 2017, 56, 1333-1339.	1.9	27
9	Time-Resolved X-ray Scattering and Raman Spectroscopic Studies of Formation of a Uranium-Vanadium-Phosphorus-Peroxide Cage Cluster. Inorganic Chemistry, 2016, 55, 7061-7067.	1.9	22
10	Hierarchy of Pyrophosphate-Functionalized Uranyl Peroxide Nanocluster Synthesis. Inorganic Chemistry, 2017, 56, 5478-5487.	1.9	22
11	Single-Crystal Time-of-Flight Neutron Diffraction and Magic-Angle-Spinning NMR Spectroscopy Resolve the Structure and ¹H and ⁷Li Dynamics of the Uranyl Peroxide Nanocluster U₆₀. Inorganic Chemistry, 2017, 56, 9676-9683.	1.9	22
12	The Propensity of Uranium-Peroxide Systems to Preserve Nanosized Assemblies. Inorganic Chemistry, 2017, 56, 9602-9608.	1.9	19
13	Ionâ€“ion interactions enhance aluminum solubility in alkaline suspensions of nano-gibbsite (Î±-Al(OH)₃) with sodium nitrite/nitrate. Physical Chemistry Chemical Physics, 2020, 22, 4368-4378.	1.3	19
14	Uranylâ€“Peroxide Capsule Selfâ€Assembly in Slow Motion. Chemistry - A European Journal, 2019, 25, 6087-6091.	1.7	17
15	Sulfate-Centered Sodium-Icosahedron-Templated Uranyl Peroxide Phosphate Cages with Uranyl Bridged by Î¼â€“Î·¹:Î·² Peroxide. Inorganic Chemistry, 2017, 56, 1874-1880.	1.9	16
16	²⁷Al Pulsed Field Gradient, Diffusionâ€“NMR Spectroscopy of Solvation Dynamics and Ion Pairing in Alkaline Aluminate Solutions. Journal of Physical Chemistry B, 2018, 122, 10907-10912.	1.2	15
17	Solid-State Recrystallization Pathways of Sodium Aluminate Hydroxy Hydrates. Inorganic Chemistry, 2020, 59, 6857-6865.	1.9	11
18	Energetic Trends in Monomer Building Blocks for Uranyl Peroxide Clusters. Inorganic Chemistry, 2019, 58, 439-445.	1.9	10

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19	Intermediate Species in the Crystallization of Sodium Aluminate Hydroxy Hydrates. Journal of Physical Chemistry C, 2020, 124, 12337-12345.	1.5	10
20	Inference of principal species in caustic aluminate solutions through solid-state spectroscopic characterization. Dalton Transactions, 2020, 49, 5869-5880.	1.6	10
21	Mechanisms of Al³⁺ Dimerization in Alkaline Solutions. Inorganic Chemistry, 2020, 59, 18181-18189.	1.9	8
22	Hydroxide promotes ion pairing in the NaNO₂â€“NaOHâ€“H₂O system. Physical Chemistry Chemical Physics, 2021, 23, 112-122.	1.3	8
23	Influence of soluble oligomeric aluminum on precipitation in the Alâ€“KOHâ€“H2O system. Physical Chemistry Chemical Physics, 2020, 22, 24677-24685.	1.3	7
24	Dynamics of Cation-Induced Conformational Changes in Nanometer-Sized Uranyl Peroxide Clusters. Inorganic Chemistry, 2020, 59, 2495-2502.	1.9	7
25	Neptunyl Peroxide Chemistry: Synthesis and Spectroscopic Characterization of a Neptunyl Triperoxide Compound, Ca₂[NpO₂(O₂)₃]Â·9H₂O. Inorganic Chemistry, 2019, 58, 12264-12271.	1.9	6
26	Prediction of Solution Behavior via Calorimetric Measurements Allows for Detailed Elucidation of Polyoxometalate Transformation. Inorganic Chemistry, 2021, 60, 6753-6763.	1.9	6
27	A Spontaneous Structural Transition of {U₂₄Pp₁₂} Clusters Triggered by Alkali Counterion Replacement in Dilute Solution. Chemistry - A European Journal, 2017, 23, 7915-7919.	1.7	5
28	Nitrate and nitrite incompatibility with hydroxide ions in concentrated NaOH solutions: Implications for hydroxide and gibbsite reactivity in alkaline nuclear waste. Fluid Phase Equilibria, 2021, 532, 112922.	1.4	5
29	Cluster defects in gibbsite nanoplates grown at acidic to neutral pH. Nanoscale, 2021, 13, 17373-17385.	2.8	5
30	Theory-Guided Inelastic Neutron Scattering of Crystalline Alkaline Aluminate Salts Bearing Principal Motifs of Solution-State Species. Inorganic Chemistry, 2021, 60, 16223-16232.	1.9	4
31	Column separation of tetravalent cerium fission products from trivalent rare earth radio-isotopes. Journal of Radioanalytical and Nuclear Chemistry, 2022, 331, 2295-2302.	0.7	4
32	Experimental measurements of U24Py nanocluster behavior in aqueous solution. Radiochimica Acta, 2016, 104, 853-864.	0.5	2
33	Synthesis and Characterization of Nonâ€Aqueous [Tc X Mâ€PW 11 O 39] n â€“ with M = O, N: Comparing Tc V and Tc VI in Metal Oxide Matrices. European Journal of Inorganic Chemistry, 2019, 2019, 4826-4834.	1.0	2
34	Cationâ€Directed Isomerization of the U 28 Uranylâ€Peroxide Cluster. European Journal of Inorganic Chemistry, 2017, 2017, 5429-5433.	1.0	1
35	The controlling role of atmosphere in dawsonite versus gibbsite precipitation from tetrahedral aluminate species. Dalton Transactions, 2021, 50, 13438-13446.	1.6	1
36	Isotopic Substitution Reveals the Importance of Aluminate Diffusion Dynamics in Gibbsite (Al(OH)₃) Crystallization from Alkaline Aqueous Solution. ACS Earth and Space Chemistry, 0, , .	1.2	1

#	Article	IF	Citations
37	Front Cover: Cation-Directed Isomerization of the U28 Uranyl-Peroxide Cluster (Eur. J. Inorg. Chem.) Tj ETQq1 1 0.784314 rgBT /Overl	1.0	0
38	Cation-Directed Isomerization of the U28 Uranyl-Peroxide Cluster. European Journal of Inorganic Chemistry, 2017, 2017, 5248-5248.	1.0	0