

Nancy M Washton

List of Publications by Year in descending order

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58
papers

3,157
citations

218677

26
h-index

155660

55
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59
all docs

59
docs citations

59
times ranked

3137
citing authors

#	ARTICLE	IF	CITATIONS
1	Methyl-Driven Overhauser Dynamic Nuclear Polarization. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 4000-4006.	4.6	13
2	Rate Controlling in Low-Temperature Standard NH ₃ -SCR: Implications from <i>Operando</i> EPR Spectroscopy and Reaction Kinetics. <i>Journal of the American Chemical Society</i> , 2022, 144, 9734-9746.	13.7	17
3	Remarkable self-degradation of Cu/SAPO-34 selective catalytic reduction catalysts during storage at ambient conditions. <i>Catalysis Today</i> , 2021, 360, 367-374.	4.4	18
4	Effects of Al:Si and (Al+Na):Si ratios on the properties of the international simple glass, part II: Structure. <i>Journal of the American Ceramic Society</i> , 2021, 104, 183-207.	3.8	29
5	Al ₂ O ₃ Atomic Layer Deposition on Nanostructured ¹³ Mg(BH ₄) ₂ for H ₂ Storage. <i>ACS Applied Energy Materials</i> , 2021, 4, 1150-1162.	5.1	13
6	High Temperature Acclimation of Leaf Gas Exchange, Photochemistry, and Metabolomic Profiles in <i>Populus trichocarpa</i> . <i>ACS Earth and Space Chemistry</i> , 2021, 5, 1813-1828.	2.7	7
7	Role of a Multivalent Ion-Solvent Interaction on Restricted Mg ²⁺ Diffusion in Dimethoxyethane Electrolytes. <i>Journal of Physical Chemistry B</i> , 2021, 125, 12574-12583.	2.6	7
8	Pulsed Field Gradient Nuclear Magnetic Resonance and Diffusion Analysis in Battery Research. <i>Chemistry of Materials</i> , 2021, 33, 8562-8590.	6.7	20
9	Quantification of High-Temperature Transition Al ₂ O ₃ and Their Phase Transformations**. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21719-21727.	13.8	28
10	Quantitative Cu Counting Methodologies for Cu/SSZ-13 Selective Catalytic Reduction Catalysts by Electron Paramagnetic Resonance Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2020, 124, 28061-28073.	3.1	20
11	Probing Conformational Evolution and Associated Dynamics of Mg(N(SO ₂ CF ₃) ₂) ₂ -Dimethoxyethane Adduct Using Solid-State ¹⁹ F and ¹ H NMR. <i>Journal of Physical Chemistry C</i> , 2020, 124, 4999-5008.	3.1	13
12	A closed cycle for esterifying aromatic hydrocarbons with CO ₂ and alcohol. <i>Nature Chemistry</i> , 2019, 11, 940-947.	13.6	30
13	IRMOF-74(n)-Mg: a novel catalyst series for hydrogen activation and hydrogenolysis of C=O bonds. <i>Chemical Science</i> , 2019, 10, 9880-9892.	7.4	23
14	Revisiting effects of alkali metal and alkaline earth co-cation additives to Cu/SSZ-13 selective catalytic reduction catalysts. <i>Journal of Catalysis</i> , 2019, 378, 363-375.	6.2	59
15	Unraveling the Dynamic Network in the Reactions of an Alkyl Aryl Ether Catalyzed by Ni/Al ₂ O ₃ in 2-Propanol. <i>Journal of the American Chemical Society</i> , 2019, 141, 17370-17381.	13.7	23
16	A novel high-temperature MAS probe with optimized temperature gradient across sample rotor for in-situ monitoring of high-temperature high-pressure chemical reactions. <i>Solid State Nuclear Magnetic Resonance</i> , 2019, 102, 31-35.	2.3	6
17	Interdisciplinary Round-Robin Test on Molecular Spectroscopy of the U(VI) Acetate System. <i>ACS Omega</i> , 2019, 4, 8167-8177.	3.5	5
18	Unraveling the mysterious failure of Cu/SAPO-34 selective catalytic reduction catalysts. <i>Nature Communications</i> , 2019, 10, 1137.	12.8	99

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19	Mineral Surfaces as Agents of Environmental Proteolysis: Mechanisms and Controls. <i>Environmental Science & Technology</i> , 2019, 53, 3018-3026.	10.0	11
20	Monitoring solvent dynamics and ion associations in the formation of cubic octamer polyanion in tetramethylammonium silicate solutions. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 4717-4720.	2.8	9
21	CRAGE enables rapid activation of biosynthetic gene clusters in undomesticated bacteria. <i>Nature Microbiology</i> , 2019, 4, 2498-2510.	13.3	85
22	NH ₃ -SCR on Cu, Fe and Cu + Fe exchanged beta and SSZ-13 catalysts: Hydrothermal aging and propylene poisoning effects. <i>Catalysis Today</i> , 2019, 320, 91-99.	4.4	90
23	Structural dependence of crystallization in glasses along the nepheline (NaAlSiO ₄) - eucryptite (LiAlSiO ₄) join. <i>Journal of the American Ceramic Society</i> , 2018, 101, 2840-2855.	3.8	24
24	Effect of Acid on Surface Hydroxyl Groups on Kaolinite and Montmorillonite. <i>Zeitschrift Fur Physikalische Chemie</i> , 2018, 232, 409-430.	2.8	11
25	Surprising formation of quasi-stable Tc(^{VI}) in high ionic strength alkaline media. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 2081-2091.	6.0	15
26	Self-organizing layers from complex molecular anions. <i>Nature Communications</i> , 2018, 9, 1889.	12.8	43
27	Challenges and Solutions for Handling and Characterizing Alkali-Tc-Oxide Salts. <i>MRS Advances</i> , 2018, 3, 1191-1200.	0.9	1
28	Spectroscopic Characterization of Aqua [<i>fac</i>]-Tc(CO) ₃ ⁺ Complexes at High Ionic Strength. <i>Inorganic Chemistry</i> , 2018, 57, 6903-6912.	4.0	10
29	Chemical Trends in Solid Alkali Pertechnetates. <i>Inorganic Chemistry</i> , 2017, 56, 2533-2544.	4.0	26
30	Surface Interactions and Confinement of Methane: A High Pressure Magic Angle Spinning NMR and Computational Chemistry Study. <i>Langmuir</i> , 2017, 33, 1359-1367.	3.5	22
31	Transformation of Active Sites in Fe/SSZ-13 SCR Catalysts during Hydrothermal Aging: A Spectroscopic, Microscopic, and Kinetics Study. <i>ACS Catalysis</i> , 2017, 7, 2458-2470.	11.2	89
32	Operando Solid-State NMR Observation of Solvent-Mediated Adsorption-Reaction of Carbohydrates in Zeolites. <i>ACS Catalysis</i> , 2017, 7, 3489-3500.	11.2	70
33	Conversion of nuclear waste to molten glass: Formation of porous amorphous alumina in a high-Al melter feed. <i>Journal of Nuclear Materials</i> , 2017, 483, 102-106.	2.7	7
34	High-resolution microstrip NMR detectors for subnanoliter samples. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 28163-28174.	2.8	12
35	Toward Rational Design of Cu/SSZ-13 Selective Catalytic Reduction Catalysts: Implications from Atomic-Level Understanding of Hydrothermal Stability. <i>ACS Catalysis</i> , 2017, 7, 8214-8227.	11.2	278
36	Uranium Release from Acidic Weathered Hanford Sediments: Single-Pass Flow-Through and Column Experiments. <i>Environmental Science & Technology</i> , 2017, 51, 11011-11019.	10.0	15

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37	Sub-micron Cu/SSZ-13: Synthesis and application as selective catalytic reduction (SCR) catalysts. <i>Applied Catalysis B: Environmental</i> , 2017, 201, 461-469.	20.2	101
38	Theoretical Modeling of ^{99}Tc NMR Chemical Shifts. <i>Inorganic Chemistry</i> , 2016, 55, 8341-8347.	4.0	10
39	Protein-Mineral Interactions: Molecular Dynamics Simulations Capture Importance of Variations in Mineral Surface Composition and Structure. <i>Langmuir</i> , 2016, 32, 6194-6209.	3.5	31
40	Abiotic Protein Fragmentation by Manganese Oxide: Implications for a Mechanism to Supply Soil Biota with Oligopeptides. <i>Environmental Science & Technology</i> , 2016, 50, 3486-3493.	10.0	30
41	A comparative kinetics study between Cu/SSZ-13 and Fe/SSZ-13 SCR catalysts. <i>Catalysis Today</i> , 2015, 258, 347-358.	4.4	94
42	Evidence for Carbonate Surface Complexation during Forsterite Carbonation in Wet Supercritical Carbon Dioxide. <i>Langmuir</i> , 2015, 31, 7533-7543.	3.5	47
43	Highly active electrolytes for rechargeable Mg batteries based on a $[\text{Mg}_2(\text{Cl})_2]^{2+}$ cation complex in dimethoxyethane. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 13307-13314.	2.8	126
44	Unraveling the Origin of Structural Disorder in High Temperature Transition Al_2O_3 : Structure of $[\text{Al}_2\text{O}_3]$. <i>Chemistry of Materials</i> , 2015, 27, 7042-7049.	6.7	51
45	Effects of Alkali and Alkaline Earth Cocations on the Activity and Hydrothermal Stability of Cu/SSZ-13 NH_3 -SCR Catalysts. <i>ACS Catalysis</i> , 2015, 5, 6780-6791.	11.2	235
46	Effects of Si/Al ratio on Cu/SSZ-13 NH_3 -SCR catalysts: Implications for the active Cu species and the roles of Brønsted acidity. <i>Journal of Catalysis</i> , 2015, 331, 25-38.	6.2	341
47	Nepheline crystallization in boron-rich aluminosilicate glasses as investigated by multi-nuclear NMR, Raman, & Mössbauer spectroscopies. <i>Journal of Non-Crystalline Solids</i> , 2015, 409, 149-165.	3.1	42
48	Synthesis and evaluation of Cu/SAPO-34 catalysts for NH_3 -SCR 2: Solid-state ion exchange and one-pot synthesis. <i>Applied Catalysis B: Environmental</i> , 2015, 162, 501-514.	20.2	166
49	Fe/SSZ-13 as an NH_3 -SCR catalyst: A reaction kinetics and FTIR/Mössbauer spectroscopic study. <i>Applied Catalysis B: Environmental</i> , 2015, 164, 407-419.	20.2	108
50	Synthesis and Evaluation of Cu-SAPO-34 Catalysts for Ammonia Selective Catalytic Reduction. 1. Aqueous Solution Ion Exchange. <i>ACS Catalysis</i> , 2013, 3, 2083-2093.	11.2	168
51	Solid-state NMR examination of alteration layers on nuclear waste glasses. <i>Journal of Non-Crystalline Solids</i> , 2013, 369, 44-54.	3.1	8
52	Structure and Chemistry in Halide Lead-Tellurite Glasses. <i>Journal of Physical Chemistry C</i> , 2013, 117, 3456-3466.	3.1	21
53	Atomic-level studies of the depletion in reactive sites during clay mineral dissolution. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 92, 100-116.	3.9	7
54	Measurement of the Reactive Surface Area of Clay Minerals Using Solid-State NMR Studies of a Probe Molecule. <i>Journal of Physical Chemistry C</i> , 2010, 114, 5491-5498.	3.1	41

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55	Probing the molecular-level control of aluminosilicate dissolution: A sensitive solid-state NMR proxy for reactive surface area. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 5949-5961.	3.9	31
56	NMR and IR Study of Fluorobenzene and Hexafluorobenzene Adsorbed on Alumina. <i>Langmuir</i> , 2007, 23, 5412-5418.	3.5	12
57	Study of a Family of 40 Hydroxylated β -Cristobalite Surfaces Using Empirical Potential Energy Functions. <i>Journal of Physical Chemistry C</i> , 2007, 111, 5169-5177.	3.1	30
58	Effects of Systematic Methyl Substitution of Metal (III) Tris(n-Methyl-8-Quinolinolato) Chelates on Material Properties for Optimum Electroluminescence Device Performance. <i>Journal of the American Chemical Society</i> , 2001, 123, 6300-6307.	13.7	207