John R Morris

List of Publications by Year
in descending order

77 papers	3,028 citations	136885 32 h-index	175177 52 g-index
78 all docs	78 docs citations	78 times ranked	3385 citing authors

#	Article	IF	Citations
1	Sustainable Green Chemistry: Water-Soluble Ozonized Biochar Molecules To Unlock Phosphorus from Insoluble Phosphate Materials. ACS Agricultural Science and Technology, 2022, 2, 69-78.	1.0	2
2	Reversible Dissociation for Effective Storage of Diborane Gas within the UiO-66-NH2 Metalâ€“Organic Framework. ACS Applied Materials & Interfaces, 2022, , .	4.0	4
3	Aqueous-Phase Destruction of Nerve-Agent Simulants at Copper Single Atoms in UiO-66. Inorganic Chemistry, 2022, 61, 8585-8591.	1.9	5
4	Nanoconfinement and mass transport in metalâ€“organic frameworks. Chemical Society Reviews, 2021, 50, 11530-11558.	18.7	67
5	Bifurcated Dihydrogen Bonding in the Uptake of Gas-Phase Diborane on Silica. Journal of Physical Chemistry Letters, 2021, 12, 4987-4992.	2.1	1
6	Multimodal Characterization of Materials and Decontamination Processes for Chemical Warfare Protection. ACS Applied Materials & Interfaces, 2020, 12, 14721-14738.	4.0	21
7	Electronic Metalâ€“Support Interactions in the Activation of CO Oxidation over a Cu/TiO₂ Aerogel Catalyst. Journal of Physical Chemistry C, 2020, 124, 21491-21501.	1.5	21
8	Metalâ€“Organic Framework- and Polyoxometalate-Based Sorbents for the Uptake and Destruction of Chemical Warfare Agents. ACS Applied Materials & Interfaces, 2020, 12, 14641-14661.	4.0	46
9	Effect of Carbon Dioxide on the Degradation of Chemical Warfare Agent Simulant in the Presence of Zr Metal Organic Framework MOF-808. Chemistry of Materials, 2019, 31, 9904-9914.	3.2	31
10	Biochar Surface Oxygenation by Ozonization for Super High Cation Exchange Capacity. ACS Sustainable Chemistry and Engineering, 2019, 7, 16410-16418.	3.2	60
11	Correlated Multimodal Approach Reveals Key Details of Nerve-Agent Decomposition by Single-Site Zr-Based Polyoxometalates. Journal of Physical Chemistry Letters, 2019, 10, 2295-2299.	2.1	23
12	Molecular-Level Insight into CO₂ Adsorption on the Zirconium-Based Metalâ€“Organic Framework, UiO-66: A Combined Spectroscopic and Computational Approach. Journal of Physical Chemistry C, 2019, 123, 13731-13738.	1.5	34
13	Low-temperature CO oxidation at persistent low-valent Cu nanoparticles on TiO2 aerogels. Applied Catalysis B: Environmental, 2019, 252, 205-213.	10.8	47
14	Geometry and energetics of CO adsorption on hydroxylated UiO-66. Physical Chemistry Chemical Physics, 2019, 21, 5078-5085.	1.3	17
15	Key mechanistic details of paraoxon decomposition by polyoxometalates: Critical role of para-nitro substitution. Chemical Physics, 2019, 518, 30-37.	0.9	8
16	Enhanced scratch resistance of self-assembled silica nanoparticle anti-reflection coatings. Journal of Materials Chemistry C, 2018, 6, 823-835.	2.7	17
17	Impact of ambient gases on the mechanism of [Cs8Nb6O19]-promoted nerve-agent decomposition. Chemical Science, 2018, 9, 2147-2158.	3.7	18
18	Characterization of Undercoordinated Zr Defect Sites in UiO-66 with Vibrational Spectroscopy of Adsorbed CO. Journal of Physical Chemistry C, 2018, 122, 14582-14589.	1.5	52

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19	Benzene, Toluene, and Xylene Transport through UiO-66: Diffusion Rates, Energetics, and the Role of Hydrogen Bonding. Journal of Physical Chemistry C, 2018, 122, 16060-16069.	1.5	60
20	Catalysis and Photocatalysis by Nanoscale Au/TiO₂: Perspectives for Renewable Energy. ACS Energy Letters, 2017, 2, 1223-1231.	8.8	105
21	Atomic-Level Structural Dynamics of Polyoxoniobates during DMMP Decomposition. Scientific Reports, 2017, 7, 773.	1.6	24
22	Alkaneâ€“OH Hydrogen Bond Formation and Diffusion Energetics of n-Butane within UiO-66. Journal of Physical Chemistry C, 2017, 121, 8902-8906.	1.5	32
23	Interaction parameters for the uptake of sulfur mustard mimics into polyurethane films. Progress in Organic Coatings, 2017, 107, 14-17.	1.9	4
24	In Situ Probes of Capture and Decomposition of Chemical Warfare Agent Simulants by Zr-Based Metal Organic Frameworks. Journal of the American Chemical Society, 2017, 139, 599-602.	6.6	169
25	Binding Sites, Geometry, and Energetics of Propene at Nanoparticulate Au/TiO₂. Journal of Physical Chemistry C, 2017, 121, 1683-1689.	1.5	15
26	Infrared studies of propene and propene oxide adsorption on nanoparticulate Au/TiO2. Surface Science, 2016, 652, 172-182.	0.8	23
27	Adsorption of Substituted Benzene Derivatives on Silica: Effects of Electron Withdrawing and Donating Groups. Journal of Physical Chemistry C, 2016, 120, 13024-13031.	1.5	34
28	Surface chemistry of Au/TiO2: Thermally and photolytically activated reactions. Surface Science Reports, 2016, 71, 77-271.	3.8	106
29	Heterogeneous chemistry and reaction dynamics of the atmospheric oxidants, O₃, NO₃, and OH, on organic surfaces. Chemical Society Reviews, 2016, 45, 3731-3746.	18.7	90
30	An Operando View of the Nanoscale. Journal of Physical Chemistry Letters, 2015, 6, 4923-4926.	2.1	5
31	Hydrogen Abstraction Probability in Reactions of Gas-Phase NO₃ with an OH-Functionalized Organic Surface. Journal of Physical Chemistry C, 2015, 119, 14742-14747.	1.5	4
32	Adsorption of 2-Chloroethyl Ethyl Sulfide on Silica: Binding Mechanism and Energy of a Bifunctional Hydrogen-Bond Acceptor at the Gasâ€“Surface Interface. Journal of Physical Chemistry C, 2015, 119, 365-372.	1.5	32
33	A theoretical study of the ozonolysis of C₆₀: primary ozonide formation, dissociation, and multiple ozone additions. Physical Chemistry Chemical Physics, 2014, 16, 5977-5986.	1.3	20
34	Gas-surface reactions of nitrate radicals with vinyl-terminated self-assembled monolayers. Physical Chemistry Chemical Physics, 2014, 16, 16659-16670.	1.3	13
35	Oxidation of C₆₀ Aerosols by Atmospherically Relevant Levels of O₃. Environmental Science & Technology, 2014, 48, 2706-2714.	4.6	38
36	Chemical Warfare Agent Surface Adsorption: Hydrogen Bonding of Sarin and Soman to Amorphous Silica. Journal of Physical Chemistry Letters, 2014, 5, 1393-1399.	2.1	36

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37	Multifunctional ultra-high vacuum apparatus for studies of the interactions of chemical warfare agents on complex surfaces. Review of Scientific Instruments, 2014, 85, 014101.	0.6	15
38	High Photoreactivity of o-Nitrobenzyl Ligands on Gold. Journal of Physical Chemistry C, 2013, 117, 14165-14175.	1.5	9
39	Ultraviolet and Visible Photochemistry of Methanol at 3D Mesoporous Networks: TiO₂and Auâ€“TiO₂. Journal of Physical Chemistry C, 2013, 117, 15035-15049.	1.5	49
40	Theoretical Study of the Adsorption of Organophosphorous Compounds to Models of a Silica Surface. Journal of Physical Chemistry C, 2013, 117, 14625-14634.	1.5	22
41	Infrared Spectra and Binding Energies of Chemical Warfare Nerve Agent Simulants on the Surface of Amorphous Silica. Journal of Physical Chemistry C, 2013, 117, 15685-15697.	1.5	66
42	Developing a Molecular-Level Understanding of Organic Chemistry and Physics at the Gasâ€“Surface Interface. Journal of Physical Chemistry Letters, 2013, 4, 4055-4057.	2.1	1
43	Interfacial energy exchange and reaction dynamics in collisions of gases on model organic surfaces. Progress in Surface Science, 2012, 87, 221-252.	3.8	21
44	Interactions and Binding Energies of Dimethyl Methylphosphonate and Dimethyl Chlorophosphate with Amorphous Silica. Langmuir, 2012, 28, 10962-10967.	1.6	38
45	Reaction Probability and Infrared Detection of the Primary Ozonide in Collisions of O₃ with Surface-Bound C₆₀. Journal of Physical Chemistry Letters, 2012, 3, 3193-3198.	2.1	11
46	Infrared Spectroscopic Studies of Conduction Band and Trapped Electrons in UV-Photoexcited, H-Atom n-Doped, and Thermally Reduced TiO₂. Journal of Physical Chemistry C, 2012, 116, 4535-4544.	1.5	122
47	Photooxidation Mechanism of Methanol on Rutile TiO₂ Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 6623-6635.	1.5	104
48	Initial Reaction Probability and Dynamics of Ozone Collisions with a Vinyl-Terminated Self-Assembled Monolayer. Journal of Physical Chemistry C, 2011, 115, 25343-25350.	1.5	19
49	Gasâ€“Surface Scattering Dynamics of CO₂, NO₂, and O₃ in Collisions with Model Organic Surfaces. Journal of Physical Chemistry A, 2011, 115, 6194-6201.	1.1	13
50	Mechanistic Studies of Hydrogen Dissociation and Spillover on Au/TiO₂: IR Spectroscopy of Coadsorbed CO and H-Donated Electrons. Journal of Physical Chemistry C, 2011, 115, 22400-22408.	1.5	103
51	Effect of Methanol on the Lewis Acidity of Rutile TiO₂Nanoparticles Probed through Vibrational Spectroscopy of Coadsorbed CO. Langmuir, 2010, 26, 8106-8112.	1.6	27
52	Gasâ€“surface energy exchange and thermal accommodation of CO2 and Ar in collisions with methyl, hydroxyl, and perfluorinated self-assembled monolayers. Physical Chemistry Chemical Physics, 2010, 12, 12533.	1.3	25
53	Experimental and theoretical study of CO collisions with CH3- and CF3-terminated self-assembled monolayers. Journal of Chemical Physics, 2009, 130, 084702.	1.2	21
54	Control of morphology in inert-gas condensation of metal oxide nanoparticles. Journal of Materials Science, 2009, 44, 4286-4295.	1.7	14

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55	Thermal Decomposition of a Chemical Warfare Agent Simulant (DMMP) on TiO₂: Adsorbate Reactions with Lattice Oxygen as Studied by Infrared Spectroscopy. Journal of Physical Chemistry C, 2009, 113, 15684-15691.	1.5	99
56	Uptake of a Chemical Warfare Agent Simulant (DMMP) on TiO₂: Reactive Adsorption and Active Site Poisoning. Langmuir, 2009, 25, 3652-3658.	1.6	91
57	Theoretical Study of the Stereodynamics of CO Collisions with CH₃- and CF₃-Terminated Alkanethiolate Self-Assembled Monolayers. Journal of Physical Chemistry A, 2009, 113, 4155-4167.	1.1	13
58	Catalytic Degradation of a Chemical Warfare Agent Simulant:â€‰ Reaction Mechanisms on TiO₂-Supported Au Nanoparticles. Journal of Physical Chemistry C, 2008, 112, 7496-7502.	1.5	59
59	Chemical Dynamics Study of Intrasurface Hydrogen-Bonding Effects in Gasâ^'Surface Energy Exchange and Accommodation. Journal of Physical Chemistry C, 2008, 112, 476-490.	1.5	45
60	Oxidation of Organic Films by Beams of Hydroxyl Radicals. Journal of Physical Chemistry B, 2008, 112, 535-544.	1.2	19
61	Collisions of Polar and Nonpolar Gases with Hydrogen Bonding and Hydrocarbon Self-Assembled Monolayers. Journal of Physical Chemistry C, 2008, 112, 17272-17280.	1.5	32
62	Experimental and theoretical studies of the effect of mass on the dynamics of gas/organic-surface energy transfer. Journal of Chemical Physics, 2008, 128, 014713.	1.2	30
63	Adsorption and Decomposition of Dimethyl Methylphosphonate on Y2O3 Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 3233-3240.	1.5	73
64	Dynamics of HCl Collisions with Hydroxyl- and Methyl-Terminated Self-Assembled Monolayersâ€. Journal of Physical Chemistry A, 2006, 110, 1645-1649.	1.1	26
65	Theoretical Study of the Effect of Surface Density on the Dynamics of Ar + Alkanethiolate Self-Assembled Monolayer Collisionsâ€. Journal of Physical Chemistry A, 2006, 110, 1319-1326.	1.1	41
66	Classical trajectory study of collisions of Ar with alkanethiolate self-assembled monolayers: Potential-energy surface effects on dynamics. Journal of Chemical Physics, 2005, 122, 214712.	1.2	44
67	Packing density and structure effects on energy-transfer dynamics in argon collisions with organic monolayers. Journal of Chemical Physics, 2005, 122, 234714.	1.2	55
68	Scattering, Accommodation, and Trapping of HCl in Collisions with a Hydroxylated Self-Assembled Monolayer. Journal of Physical Chemistry B, 2005, 109, 15469-15475.	1.2	28
69	Reactions of CC-Terminated Self-Assembled Monolayers with Gas-Phase Ozone. Langmuir, 2005, 21, 2660-2661.	1.6	46
70	Corner Capping of Silsesquioxane Cages by Chemical Warfare Agent Simulants. Langmuir, 2005, 21, 11226-11231.	1.6	13
71	Well-Ordered Self-Assembled Monolayers Created via Vapor-Phase Reactions on a Monolayer Template. Langmuir, 2004, 20, 3319-3323.	1.6	18
72	The effect of hydrogen-bonding and terminal group structure on the dynamics of Ar collisions with self-assembled monolayers. Analytica Chimica Acta, 2003, 496, 249-258.	2.6	27

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73	Evenâ^'Odd Orientation and Chain-Length Effects in the Energy Exchange of Argon Collisions with Self-Assembled Monolayers. Journal of Physical Chemistry B, 2003, 107, 7120-7125.	1.2	56
74	The dynamics of gas-surface energy exchange in collisions of Ar atoms with Ï‰-functionalized self-assembled monolayers. Journal of Chemical Physics, 2003, 119, 8084-8096.	1.2	84
75	Energy transfer in rare gas collisions with hydroxyl- and methyl-terminated self-assembled monolayers. Journal of Chemical Physics, 2002, 116, 9147-9150.	1.2	60
76	Reaction and desorption of HCl and HBr following collisions with supercooled sulfuric acid. Geophysical Research Letters, 2001, 28, 1961-1964.	1.5	33
77	Molecular Beam Scattering from Supercooled Sulfuric Acid:Â Collisions of HCl, HBr, and HNO3with 70 wt D2SO4. Journal of Physical Chemistry A, 2000, 104, 6738-6751.	1.1	72