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	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
2	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
3	Surface chemistry of Au/TiO2: Thermally and photolytically activated reactions. Surface Science Reports, 2016, 71, 77-271.	3.8	106
4	Catalysis and Photocatalysis by Nanoscale Au/TiO₂: Perspectives for Renewable Energy. ACS Energy Letters, 2017, 2, 1223-1231.	8.8	105
5	Photooxidation Mechanism of Methanol on Rutile TiO₂ Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 6623-6635.	1.5	104
6	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
7	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
8	Uptake of a Chemical Warfare Agent Simulant (DMMP) on TiO₂: Reactive Adsorption and Active Site Poisoning. Langmuir, 2009, 25, 3652-3658.	1.6	91
9	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
10	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
11	Adsorption and Decomposition of Dimethyl Methylphosphonate on Y2O3 Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 3233-3240.	1.5	73
12	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
13	Nanoconfinement and mass transport in metalâ€“organic frameworks. Chemical Society Reviews, 2021, 50, 11530-11558.	18.7	67
14	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
15	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
16	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
17	Biochar Surface Oxygenation by Ozonization for Super High Cation Exchange Capacity. ACS Sustainable Chemistry and Engineering, 2019, 7, 16410-16418.	3.2	60
18	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

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19	Evenâˆ’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
20	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
21	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
22	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
23	Low-temperature CO oxidation at persistent low-valent Cu nanoparticles on TiO2 aerogels. Applied Catalysis B: Environmental, 2019, 252, 205-213.	10.8	47
24	Reactions of CC-Terminated Self-Assembled Monolayers with Gas-Phase Ozone. Langmuir, 2005, 21, 2660-2661.	1.6	46
25	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
26	Chemical Dynamics Study of Intrasurface Hydrogen-Bonding Effects in Gasâˆ’Surface Energy Exchange and Accommodation. Journal of Physical Chemistry C, 2008, 112, 476-490.	1.5	45
27	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
28	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
29	Interactions and Binding Energies of Dimethyl Methylphosphonate and Dimethyl Chlorophosphate with Amorphous Silica. Langmuir, 2012, 28, 10962-10967.	1.6	38
30	Oxidation of C₆₀ Aerosols by Atmospherically Relevant Levels of O₃. Environmental Science & Technology, 2014, 48, 2706-2714.	4.6	38
31	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
32	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
33	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
34	Reaction and desorption of HCl and HBr following collisions with supercooled sulfuric acid. Geophysical Research Letters, 2001, 28, 1961-1964.	1.5	33
35	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
36	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

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37	Alkaneâ€“OH Hydrogen Bond Formation and Diffusion Energetics of <i>n</i>-Butane within UiO-66. Journal of Physical Chemistry C, 2017, 121, 8902-8906.	1.5	32
38	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
39	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
40	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
41	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
42	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
43	Dynamics of HCl Collisions with Hydroxyl- and Methyl-Terminated Self-Assembled Monolayersâ€. Journal of Physical Chemistry A, 2006, 110, 1645-1649.	1.1	26
44	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
45	Atomic-Level Structural Dynamics of Polyoxoniobates during DMMP Decomposition. Scientific Reports, 2017, 7, 773.	1.6	24
46	Infrared studies of propene and propene oxide adsorption on nanoparticulate Au/TiO2. Surface Science, 2016, 652, 172-182.	0.8	23
47	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
48	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
49	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
50	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
51	Multimodal Characterization of Materials and Decontamination Processes for Chemical Warfare Protection. ACS Applied Materials & Interfaces, 2020, 12, 14721-14738.	4.0	21
52	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
53	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
54	Oxidation of Organic Films by Beams of Hydroxyl Radicals. Journal of Physical Chemistry B, 2008, 112, 535-544.	1.2	19

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55	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
56	Well-Ordered Self-Assembled Monolayers Created via Vapor-Phase Reactions on a Monolayer Template. Langmuir, 2004, 20, 3319-3323.	1.6	18
57	Impact of ambient gases on the mechanism of [Cs8Nb6O19]-promoted nerve-agent decomposition. Chemical Science, 2018, 9, 2147-2158.	3.7	18
58	Enhanced scratch resistance of self-assembled silica nanoparticle anti-reflection coatings. Journal of Materials Chemistry C, 2018, 6, 823-835.	2.7	17
59	Geometry and energetics of CO adsorption on hydroxylated UiO-66. Physical Chemistry Chemical Physics, 2019, 21, 5078-5085.	1.3	17
60	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
61	Binding Sites, Geometry, and Energetics of Propene at Nanoparticulate Au/TiO₂. Journal of Physical Chemistry C, 2017, 121, 1683-1689.	1.5	15
62	Control of morphology in inert-gas condensation of metal oxide nanoparticles. Journal of Materials Science, 2009, 44, 4286-4295.	1.7	14
63	Corner Capping of Silsesquioxane Cages by Chemical Warfare Agent Simulants. Langmuir, 2005, 21, 11226-11231.	1.6	13
64	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
65	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
66	Gas-surface reactions of nitrate radicals with vinyl-terminated self-assembled monolayers. Physical Chemistry Chemical Physics, 2014, 16, 16659-16670.	1.3	13
67	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
68	High Photoreactivity of <i>o</i>-Nitrobenzyl Ligands on Gold. Journal of Physical Chemistry C, 2013, 117, 14165-14175.	1.5	9
69	Key mechanistic details of paraoxon decomposition by polyoxometalates: Critical role of para-nitro substitution. Chemical Physics, 2019, 518, 30-37.	0.9	8
70	An Operando View of the Nanoscale. Journal of Physical Chemistry Letters, 2015, 6, 4923-4926.	2.1	5
71	Aqueous-Phase Destruction of Nerve-Agent Simulants at Copper Single Atoms in UiO-66. Inorganic Chemistry, 2022, 61, 8585-8591.	1.9	5
72	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

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73	Interaction parameters for the uptake of sulfur mustard mimics into polyurethane films. Progress in Organic Coatings, 2017, 107, 14-17.	1.9	4
74	Reversible Dissociation for Effective Storage of Diborane Gas within the UiO-66-NH2 Metalâ€“Organic Framework. ACS Applied Materials & Interfaces, 2022, , .	4.0	4
75	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
76	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
77	Bifurcated Dihydrogen Bonding in the Uptake of Gas-Phase Diborane on Silica. Journal of Physical Chemistry Letters, 2021, 12, 4987-4992.	2.1	1