Frances A Houle

List of Publications by Year
in descending order

33	1,571	471509 17	395702 33
papers	citations	h-index	g-index

34	34	34	2520
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Particle suspension reactors and materials for solar-driven water splitting. Energy and Environmental Science, 2015, 8, 2825-2850.	30.8	344
2	Pathways to electrochemical solar-hydrogen technologies. Energy and Environmental Science, 2018, 11, 2768-2783.	30.8	238
3	Life-cycle net energy assessment of large-scale hydrogen production via photoelectrochemical water splitting. Energy and Environmental Science, 2014, 7, 3264-3278.	30.8	195
4	The Technical and Energetic Challenges of Separating (Photo)Electrochemical Carbon Dioxide Reduction Products. Joule, 2018, 2, 381-420.	24.0	148
5	Opportunities to improve the net energy performance of photoelectrochemical water-splitting technology. Energy and Environmental Science, 2016, 9, 803-819.	30.8	75
6	Exploring Chemistry in Microcompartments Using Guided Droplet Collisions in a Branched Quadrupole Trap Coupled to a Single Droplet, Paper Spray Mass Spectrometer. Analytical Chemistry, 2017, 89, 12511-12519.	6.5	60
7	Practical challenges in the development of photoelectrochemical solar fuels production. Sustainable Energy and Fuels, 2020, 4, 985-995.	4.9	58
8	The nature of the bonding of Li+ to H2O and NH3; A3 initio studies. Chemical Physics, 1976, 14, 461-468.	1.9	54
9	Connecting the Elementary Reaction Pathways of Criegee Intermediates to the Chemical Erosion of Squalene Interfaces during Ozonolysis. Environmental Science & Technology, 2017, 51, 13740-13748.	10.0	53
10	Diffusive confinement of free radical intermediates in the OH radical oxidation of semisolid aerosols. Physical Chemistry Chemical Physics, 2017, 19, 6814-6830.	2.8	38
11	Aerosol Fragmentation Driven by Coupling of Acidâ€“Base and Free-Radical Chemistry in the Heterogeneous Oxidation of Aqueous Citric Acid by OH Radicals. Journal of Physical Chemistry A, 2017, 121, 5856-5870.	2.5	29
12	Changes in Reactivity as Chemistry Becomes Confined to an Interface. The Case of Free Radical Oxidation of C₃₀H₆₂ Alkane by OH. Journal of Physical Chemistry Letters, 2018, 9, 1053-1057.	4.6	27
13	JCAP Research on Solar Fuel Production at Light Sources. Synchrotron Radiation News, 2014, 27, 14-17.	0.8	26
14	Hybrid Composite Coatings for Durable and Efficient Solar Hydrogen Generation under Diverse Operating Conditions. Advanced Energy Materials, 2017, 7, 1602791.	19.5	25
15	Colliding-Droplet Microreactor: Rapid On-Demand Inertial Mixing and Metal-Catalyzed Aqueous Phase Oxidation Processes. Analytical Chemistry, 2017, 89, 12494-12501.	6.5	25
16	Ethics and the Welfare of the Physics Profession. Physics Today, 2004, 57, 42-46.	0.3	19
17	Predicting Aerosol Reactivity Across Scales: from the Laboratory to the Atmosphere. Environmental Science & Technology, 2018, 52, 13774-13781.	10.0	19
18	Multiphase Mechanism for the Production of Sulfuric Acid from SO₂ by Criegee Intermediates Formed During the Heterogeneous Reaction of Ozone with Squalene. Journal of Physical Chemistry Letters, 2018, 9, 3504-3510.	4.6	18

#	Article	IF	Citations
19	Swelling and Diffusion during Methanol Sorption into Hydrated Nafion. Journal of Physical Chemistry B, 2018, 122, 8255-8268.	2.6	16
20	Ultrafast Relaxations in Ruthenium Polypyridyl Chromophores Determined by Stochastic Kinetics Simulations. Journal of Physical Chemistry B, 2020, 124, 5971-5985.	2.6	13
21	Predictive simulation of non-steady-state transport of gases through rubbery polymer membranes. Polymer, 2018, 134, 125-142.	3.8	12
22	Using Nanoparticle X-ray Spectroscopy to Probe the Formation of Reactive Chemical Gradients in Diffusion-Limited Aerosols. Journal of Physical Chemistry A, 2019, 123, 6034-6044.	2.5	12
23	Use of Interferometric Lithography to Characterize the Spatial Resolution of a Photoresist Film. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2003, 16, 373-379.	0.3	10
24	A purely kinetic description of the evaporation of water droplets. Journal of Chemical Physics, 2021, 154, 054501.	3.0	10
25	Emergent Degradation Phenomena Demonstrated on Resilient, Flexible, and Scalable Integrated Photoelectrochemical Cells. Advanced Energy Materials, 2020, 10, 2002706.	19.5	8
26	Permeation of CO₂ and N₂ through glassy poly(dimethyl phenylene) oxide under steadyâ€•and presteadyâ€štate conditions. Journal of Polymer Science, 2020, 58, 1207-1228.	3.8	8
27	Adaptive response by an electrolyte: resilience to electron losses in a dye-sensitized porous photoanode. Chemical Science, 2021, 12, 6117-6128.	7.4	7
28	Reactionâ€“Transport Coupling in a Nanostructured Porous Electrode. Journal of Physical Chemistry C, 2019, 123, 14459-14467.	3.1	6
29	Toward predictive permeabilities: Experimental measurements and multiscale simulation of methanol transport in Nafion. Journal of Polymer Science, 2021, 59, 594-613.	3.8	6
30	Simulation methods in kinetics courses. Journal of Chemical Education, 1981, 58, 405.	2.3	4
31	Introduction to (photo)electrocatalysis for renewable energy. Chemical Communications, 2021, 57, 1540-1542.	4.1	3
32	How the Hydrophobic Interface between a Perfluorosulfonic Acid Polymer and Water Vapor Controls Membrane Hydration. ACS Applied Polymer Materials, 2022, 4, 3247-3258.	4.4	3
33	Ruthenium Dye Excitations and Relaxations in Natural Sunlight. Journal of Physical Chemistry A, 2021, 125, 4365-4372.	2.5	2