Gilbert M Nathanson

List of Publications by Year
in descending order

53	1,933	257450 24	254184 43
papers	citations	h-index	g-index

56	56	56	942
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamics and Kinetics at the Gasâ˜Liquid Interface. The Journal of Physical Chemistry, 1996, 100, 13007-13020.	2.9	283
2	MOLECULAR BEAM STUDIES OF GAS-LIQUID INTERFACES. Annual Review of Physical Chemistry, 2004, 55, 231-255.	10.8	156
3	Collisions of protic and aprotic gases with hydrogen bonding and hydrocarbon liquids. Journal of Chemical Physics, 1993, 99, 7056-7075.	3.0	135
4	The thermal roughening of liquid surfaces and its effect on gasâ€“liquid collisions. Journal of Chemical Physics, 1994, 101, 2539-2547.	3.0	77
5	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.	2.5	72
6	The Inhibition of N2O5 Hydrolysis in Sulfuric Acid by 1-Butanol and 1-Hexanol Surfactant Coatings. Journal of Physical Chemistry A, 2007, 111, 2921-2929.	2.5	66
7	Effects of Thermal Roughening on the Angular Distributions of Trapping and Scattering in Gasâ˜Liquid Collisions. Journal of Physical Chemistry A, 1997, 101, 6556-6561.	2.5	65
8	Collisions of protic and aprotic gases with a perfluorinated liquid. Journal of Chemical Physics, 1994, 100, 3999-4005.	3.0	55
9	Kinematics and dynamics of atomic-beam scattering on liquid and self-assembled monolayer surfaces. Faraday Discussions, 2012, 157, 355.	3.2	55
10	Inert gas scattering from molten metals: Probing the stiffness and roughness of the surfaces of atomic liquids. Journal of Chemical Physics, 1996, 104, 4842-4849.	3.0	53
11	Collisions of HCl, DCl, and HBr with Liquid Glycerol:â€‰ Gas Uptake, D â†' H Exchange, and Solution Thermodynamics. Journal of Physical Chemistry B, 2002, 106, 4988-4998.	2.6	52
12	Surfactant Control of Gas Transport and Reactions at the Surface of Sulfuric Acid. Accounts of Chemical Research, 2009, 42, 379-387.	15.6	51
13	Evaporation of Water through Butanol Films at the Surface of Supercooled Sulfuric Acid. Journal of Physical Chemistry A, 2005, 109, 7449-7457.	2.5	50
14	Microjets and coated wheels: versatile tools for exploring collisions and reactions at gasâ€“liquid interfaces. Chemical Society Reviews, 2016, 45, 3609-3620.	38.1	43
15	Scattering, Trapping, and Ionization of HCl at the Surface of Liquid Glycerol. Journal of Physical Chemistry B, 2004, 108, 995-1002.	2.6	37
16	Reaction and desorption of HCl and HBr following collisions with supercooled sulfuric acid. Geophysical Research Letters, 2001, 28, 1961-1964.	4.0	33
17	Collisions of DCl with Liquid Glycerol:â€‰ Evidence for Rapid, Near-Interfacial D â†' H Exchange and Desorption. Journal of Physical Chemistry B, 2002, 106, 4999-5010.	2.6	33
18	Collisions of DCl with Pure and Salty Glycerol:Â Enhancement of Interfacial D â†' H Exchange by Dissolved NaI. Journal of Physical Chemistry B, 2006, 110, 4881-4891.	2.6	33

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19	Argon Scattering off the Surface of Liquid Indium:Â Exit Angle and Energy Dependence. Journal of Physical Chemistry B, 1998, 102, 206-211.	2.6	31
20	Examination of liquid metal surfaces through angular and energy measurements of inert gas collisions with liquid Ga, In, and Bi. Journal of Chemical Physics, 2003, 119, 12593-12604.	3.0	31
21	Surface Tensions and Surface Segregation ofn-Butanol in Sulfuric Acidâ€. Journal of Physical Chemistry B, 2002, 106, 8064-8069.	2.6	29
22	Molecular beam studies of HCl dissolution and dissociation in cold salty water. Physical Chemistry Chemical Physics, 2011, 13, 8284.	2.8	28
23	Reactions of Solvated Electrons Initiated by Sodium Atom Ionization at the Vacuum-Liquid Interface. Science, 2012, 335, 1072-1075.	12.6	27
24	Collisions of Organic Molecules with Concentrated Sulfuric Acid:Â Scattering, Trapping, and Desorption. Journal of Physical Chemistry B, 1997, 101, 9098-9106.	2.6	26
25	Atom scattering from atomic surfactants: Collisions of argon with a dilute Bi:Ga solution. Journal of Chemical Physics, 2001, 114, 1958-1961.	3.0	23
26	Interfacial Acid Dissociation and Proton Exchange Following Collisions of DCl with Salty Glycerol and Salty Water. Journal of Physical Chemistry Letters, 2011, 2, 622-627.	4.6	23
27	Deprotonation of formic acid in collisions with a liquid water surface studied by molecular dynamics and metadynamics simulations. Physical Chemistry Chemical Physics, 2016, 18, 29756-29770.	2.8	22
28	The Roles of Salt Concentration and Cation Charge in Collisions of Ar and DCl with Salty Glycerol Solutions of NaI and CaI₂. Journal of Physical Chemistry C, 2008, 112, 3008-3017.	3.1	21
29	Collisions of DCl with a Solution Covered with Hydrophobic and Hydrophilic Ions: Tetrahexylammonium Bromide in Glycerol. Journal of Physical Chemistry A, 2009, 113, 7422-7430.	2.5	18
30	Reactions of N₂O₅ with Salty and Surfactant-Coated Glycerol: Interfacial Conversion of Br^{â€“} to Br₂ Mediated by Alkylammonium Cations. Journal of Physical Chemistry A, 2017, 121, 3708-3719.	2.5	18
31	N₂O₅at water surfaces: binding forces, charge separation, energy accommodation and atmospheric implications. Physical Chemistry Chemical Physics, 2018, 20, 17961-17976.	2.8	18
32	Sulfate and Carboxylate Suppress the Formation of ClNO2 at Atmospheric Interfaces. ACS Earth and Space Chemistry, 2019, 3, 1987-1997.	2.7	18
33	Experimental Depth Profiles of Surfactants, Ions, and Solvent at the Angstrom Scale: Studies of Cationic and Anionic Surfactants and Their Salting Out. Journal of Physical Chemistry B, 2020, 124, 2218-2229.	2.6	18
34	Inert Gas Scattering from Liquid Hydrocarbon Microjets. Journal of Physical Chemistry Letters, 2013, 4, 3045-3049.	4.6	17
35	Gasâ€“Microjet Reactive Scattering: Collisions of HCl and DCl with Cool Salty Water. Journal of Physical Chemistry Letters, 2016, 7, 730-735.	4.6	17
36	Surfactant-Promoted Reactions of Cl₂ and Br₂ with Br^{â€“} in Glycerol. Journal of Physical Chemistry B, 2013, 117, 12602-12612.	2.6	16

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37	DCl Transport through Dodecyl Sulfate Films on Salty Glycerol: Effects of Seawater Ions on Gas Entry. Journal of Physical Chemistry A, 2015, 119, 12357-12366.	2.5	15
38	Super-Maxwellian helium evaporation from pure and salty water. Journal of Chemical Physics, 2016, 144, 044707.	3.0	15
39	Ab initio molecular dynamics studies of formic acid dimer colliding with liquid water. Physical Chemistry Chemical Physics, 2018, 20, 23717-23725.	2.8	15
40	Probing Gasâ€“Liquid Interfacial Dynamics by Helium Evaporation from Hydrocarbon Liquids and Jet Fuels. Journal of Physical Chemistry C, 2015, 119, 14613-14623.	3.1	14
41	Liquid Microjet Measurements of the Entry of Organic Acids and Bases into Salty Water. Journal of Physical Chemistry C, 2017, 121, 20911-20924.	3.1	14
42	Collisions of Sodium Atoms with Liquid Glycerol: Insights into Solvation and Ionization. Journal of the American Chemical Society, 2014, 136, 3065-3074.	13.7	13
43	Control of Interfacial Cl₂ and N₂O₅ Reactivity by a Zwitterionic Phospholipid in Comparison with Ionic and Uncharged Surfactants. Journal of Physical Chemistry A, 2018, 122, 6593-6604.	2.5	12
44	Production of Br₂from N₂O₅and Br^{â€“}in Salty and Surfactant-Coated Water Microjets. Journal of Physical Chemistry A, 2019, 123, 8942-8953.	2.5	11
45	Near-Interfacial Halogen Atom Exchange in Collisions of Cl₂ with 2.7 M NaBrâ€“Glycerol. Journal of Physical Chemistry B, 2012, 116, 12306-12318.	2.6	10
46	Ballistic Evaporation and Solvation of Helium Atoms at the Surfaces of Protic and Hydrocarbon Liquids. Journal of Physical Chemistry Letters, 2014, 5, 3914-3918.	4.6	10
47	S_N2 Reactions of N₂O₅ with Ions in Water: Microscopic Mechanisms, Intermediates, and Products. Journal of Physical Chemistry A, 2020, 124, 711-720.	2.5	8
48	Penetration of Water Vapor through Perfluorinated Polyether Films on Concentrated Sulfuric Acid. Langmuir, 1996, 12, 5448-5450.	3.5	7
49	Competing Segregation of Br^{â€“} and Cl^{â€“} to a Surface Coated with a Cationic Surfactant: Direct Measurements of Ion and Solvent Depth Profiles. Journal of Physical Chemistry A, 2020, 124, 11102-11110.	2.5	7
50	The Entry of HCl through Soluble Surfactants on Sulfuric Acid: Effects of Chain Branching. Journal of Physical Chemistry B, 2014, 118, 7993-8001.	2.6	4
51	When Liquid Rays Become Gas Rays: Can Evaporation Ever Be Non-Maxwellian?. , 2021, , 631-647.		1
52	The Wisconsin Oscillator: A Low-Cost Circuit for Powering Ion Guides, Funnels, and Traps. Journal of the American Society for Mass Spectrometry, 2021, 32, 2821-2826.	2.8	1
53	Frontispiece: Selective Photoelectrochemical Reduction of Aqueous CO2to CO by Solvated Electrons. Angewandte Chemie - International Edition, 2014, 53, n/a-n/a.	13.8	0