

John C Hemminger

List of Publications by Year in descending order

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64
papers

3,594
citations

159358

30
h-index

128067

60
g-index

66
all docs

66
docs citations

66
times ranked

4220
citing authors

#	ARTICLE	IF	CITATIONS
1	Electron Spectroscopy of Aqueous Solution Interfaces Reveals Surface Enhancement of Halides. <i>Science</i> , 2005, 307, 563-566.	6.0	611
2	Getting Specific About Specific Ion Effects. <i>Science</i> , 2008, 319, 1197-1198.	6.0	296
3	Physical Chemistry of Airborne Sea Salt Particles and Their Components. <i>Journal of Physical Chemistry A</i> , 2000, 104, 11463-11477.	1.1	217
4	The nature of water on surfaces of laboratory systems and implications for heterogeneous chemistry in the troposphere. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 604.	1.3	214
5	Atmospheric Pressure Chemical Vapor Deposition of Iron Pyrite Thin Films. <i>Advanced Energy Materials</i> , 2012, 2, 1124-1135.	10.2	147
6	Photoelectron Angular Distributions from Liquid Water: Effects of Electron Scattering. <i>Physical Review Letters</i> , 2013, 111, 173005.	2.9	132
7	Formation of a Self-Assembled Monolayer by Adsorption of Thiophene on Au(111) and Its Photooxidation. <i>Langmuir</i> , 1996, 12, 6176-6178.	1.6	113
8	Catalytically Activated Palladium@Platinum Nanowires for Accelerated Hydrogen Gas Detection. <i>ACS Nano</i> , 2015, 9, 3215-3225.	7.3	113
9	Ion spatial distributions at the liquid-vapor interface of aqueous potassium fluoride solutions. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 4778.	1.3	103
10	Direct Observation of Substrate Influence on Chemisorption of Methanethiol Adsorbed from the Gas Phase onto the Reconstructed Au(111) Surface. <i>Langmuir</i> , 1997, 13, 2318-2322.	1.6	83
11	Surface segregation of bromine in bromide doped NaCl: Implications for the seasonal variations in Arctic ozone. <i>Geophysical Research Letters</i> , 2000, 27, 1879-1882.	1.5	82
12	Scanning Tunneling Microscopy Characterization of Organoselenium Monolayers on Au(111). <i>Langmuir</i> , 1997, 13, 4788-4790.	1.6	78
13	Spatial Distribution of Nitrate and Nitrite Anions at the Liquid/Vapor Interface of Aqueous Solutions. <i>Journal of the American Chemical Society</i> , 2009, 131, 8354-8355.	6.6	75
14	Does Nitric Acid Dissociate at the Aqueous Solution Surface?. <i>Journal of Physical Chemistry C</i> , 2011, 115, 21183-21190.	1.5	73
15	Photodeposition of Ag or Pt onto TiO ₂ Nanoparticles Decorated on Step Edges of HOPG. <i>ACS Nano</i> , 2011, 5, 6325-6333.	7.3	72
16	CO ₂ Capture in Amine-Based Aqueous Solution: Role of the Gas-Solution Interface. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 10178-10181.	7.2	67
17	Preparation of gold thin films by epitaxial growth on mica and the effect of flame annealing. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1998, 16, 3295-3300.	0.9	63
18	Wet Chemical Growth and Thermocatalytic Activity of Cu-Based Nanoparticles Supported on TiO ₂ Nanoparticles/HOPG: In Situ Ambient Pressure XPS Study of the CO ₂ Hydrogenation Reaction. <i>ACS Catalysis</i> , 2019, 9, 6783-6802.	5.5	62

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19	Characterization of the Acetonitrile Aqueous Solution/Vapor Interface by Liquid-Jet X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 29378-29388.	1.5	59
20	Effect of Water on the HNO ₃ Pressure Dependence of the Reaction between Gas-Phase HNO ₃ and NaCl Surfaces. <i>Journal of Physical Chemistry A</i> , 1999, 103, 4777-4781.	1.1	58
21	Ambient Pressure X-ray Photoelectron Spectroscopy and Molecular Dynamics Simulation Studies of Liquid/Vapor Interfaces of Aqueous NaCl, RbCl, and RbBr Solutions. <i>Journal of Physical Chemistry C</i> , 2012, 116, 4545-4555.	1.5	58
22	Orientation and Structure of Acetonitrile in Water at the Liquid-Vapor Interface: A Molecular Dynamics Simulation Study. <i>Journal of Physical Chemistry C</i> , 2016, 120, 17555-17563.	1.5	50
23	Dissociation of Strong Acid Revisited: X-ray Photoelectron Spectroscopy and Molecular Dynamics Simulations of HNO ₃ in Water. <i>Journal of Physical Chemistry B</i> , 2011, 115, 9445-9451.	1.2	46
24	Projection Photolithography Utilizing a Schwarzschild Microscope and Self-Assembled Alkanethiol Monolayers as Simple Photoresists. <i>Langmuir</i> , 1996, 12, 2121-2124.	1.6	44
25	Dissociation of Sulfuric Acid in Aqueous Solution: Determination of the Photoelectron Spectral Fingerprints of H ₂ SO ₄ , HSO ₄ ⁻ , and SO ₄ ²⁻ in Water. <i>Journal of Physical Chemistry C</i> , 2013, 117, 8131-8137.	1.5	41
26	Surface Adsorbed Water on NaCl and Its Effect on Nitric Acid Reactivity with NaCl Powders. <i>Journal of Physical Chemistry B</i> , 2004, 108, 14102-14108.	1.2	39
27	Fluorescence Excitation and Photodecomposition of the First Excited Singlet Cyclobutanone (1A ₂): A Study of Predissociation and Collisional Energy Transfer from the Vibronically Selected Species. <i>Journal of Chemical Physics</i> , 1972, 56, 5284-5295.	1.2	36
28	Specific cation effects at aqueous solution-vapor interfaces: Surfactant-like behavior of Li ⁺ revealed by experiments and simulations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 13363-13368.	3.3	34
29	An empirical electron spectrometer transmission function for applications in quantitative XPS. <i>Surface and Interface Analysis</i> , 1990, 15, 323-327.	0.8	31
30	Chemical Vapor Deposition of Silica Micro- and Nanoribbons Using Step-Edge Localized Water. <i>Journal of Physical Chemistry B</i> , 2003, 107, 5393-5397.	1.2	29
31	Characterization of HOCl Using Atmospheric Pressure Ionization Mass Spectrometry. <i>Journal of Physical Chemistry A</i> , 1999, 103, 8231-8238.	1.1	28
32	Experimental determination of thermal and nonthermal mechanisms for laser desorption from thin metal films. <i>Journal of Chemical Physics</i> , 1990, 93, 4719-4723.	1.2	26
33	Liquid-Jet X-ray Photoelectron Spectra of TiO ₂ Nanoparticles in an Aqueous Electrolyte Solution. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1732-1735.	2.1	26
34	A Fourier transform mass spectrometer for surface analysis by laser-induced thermal desorption of molecular adsorbates. <i>Review of Scientific Instruments</i> , 1990, 61, 1674-1684.	0.6	25
35	Minimizing Transmission Electron Microscopy Beam Damage during the Study of Surface Reactions on Sodium Chloride. <i>Microscopy and Microanalysis</i> , 1998, 4, 23-33.	0.2	23
36	High-Throughput Measurement of the Seebeck Coefficient and the Electrical Conductivity of Lithographically Patterned Polycrystalline PbTe Nanowires. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 3004-3011.	2.1	23

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37	Effects of Coadsorbed Hydrogen (or D) on the Dehydrogenation of Cyclohexane on Pt(111): Observation of the Production of Adsorbed Cyclohexyl (C ₆ H ₁₁). Journal of Physical Chemistry B, 2000, 104, 6554-6561.	1.2	19
38	Spectroscopic and Electrochemical Characterization of the Photochromic Behavior of Prussian Blue Films on SrTiO ₃ . Journal of the Electrochemical Society, 1987, 134, 358-363.	1.3	17
39	Aqueous electrochemical growth of anodic sulfide films on mercury cadmium telluride. Applied Physics Letters, 1989, 54, 2238-2240.	1.5	17
40	High-Resolution X-ray Photoelectron Spectroscopy of Organometallic (C ₅ H ₄ SiMe ₃) ₃ Ln ^{III} and [(C ₅ H ₄ SiMe ₃) ₃ Ln ^{II}] ⁺ Complexes (Ln = Sm, Eu, Gd, Tb). Journal of the American Chemical Society, 2021, 143, 16610-16620.	6.6	17
41	The interface chemistry of HgCdTe passivated with native sulfide layers grown from nonaqueous and aqueous polysulfide solutions. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1989, 7, 469-473.	0.9	16
42	Displacement of Thiophene by Methanethiol Observed in Situ by Scanning Tunneling Microscopy and Quartz Crystal Oscillator Gravimetric Analysis on Au(111). Langmuir, 1998, 14, 6676-6680.	1.6	16
43	Effective one-particle energies from generalized Kohn-Sham random phase approximation: A direct approach for computing and analyzing core ionization energies. Journal of Chemical Physics, 2019, 151, 134106.	1.2	16
44	Stability of Cu/TiO ₂ Nanoparticle Model Catalysts under Electrochemical CO ₂ Reduction Conditions. ACS Catalysis, 2021, 11, 6960-6970.	5.5	16
45	D ₂ O Water Interaction with Mixed Alkane Thiol Monolayers of Tuned Hydrophobic and Hydrophilic Character. Journal of Physical Chemistry C, 2008, 112, 890-894.	1.5	15
46	The nature of the phase transition observed for monolayers of azulene on Pt(111). Journal of Chemical Physics, 1981, 75, 5573-5574.	1.2	13
47	A cluster approach to the analysis of adsorbate vibrations. Journal of Chemical Physics, 1985, 82, 3858-3867.	1.2	11
48	Molecular Arrangement of a Mixture of Organosulfur Surfactants at the Aqueous Solution-Vapor Interface Studied by Photoelectron Intensity and Angular Distribution Measurements and Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2019, 123, 8160-8170.	1.5	11
49	Predissociation of Cyclobutanone Studied by Fluorescence Excitation Spectroscopy and Single Vibronic Level Photochemistry. Journal of Chemical Physics, 1971, 54, 1405-1406.	1.2	10
50	Passivation of HgCdTe with CdS thin films: Correlation of device characteristics with surface spectroscopy. Journal of Applied Physics, 1989, 65, 2523-2529.	1.1	10
51	Polycrystalline SrTiO ₃ as an electrode for the photoelectrochromic switching of Prussian blue films. Journal of Applied Physics, 1987, 61, 3099-3104.	1.1	9
52	Characterization of Fe ²⁺ Aqueous Solutions with Liquid Jet X-ray Photoelectron Spectroscopy: Chloride Depletion at the Liquid/Vapor Interface Due to Complexation with Fe ²⁺ . Journal of Physical Chemistry B, 2019, 123, 8285-8290.	1.2	9
53	D ₂ O Water Interaction with Textured Carboxylic Acid-Terminated Monolayer Surfaces Characterized by Temperature-Programmed Desorption and Molecular Dynamics. Journal of Physical Chemistry C, 2010, 114, 1570-1579.	1.5	8
54	Summary Abstract: Surface reactions studied by laser-induced thermal desorption with Fourier transform mass spectrometry detection. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1986, 4, 1507-1509.	0.9	6

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55	Defects in C(2Å—2) oxygen overlayers on Ni(100): The effect on vibrational spectra. Journal of Chemical Physics, 1987, 86, 2986-2989.	1.2	6
56	Exploring the Solvation of Acetic Acid in Water Using Liquid Jet X-ray Photoelectron Spectroscopy and Core Level Electron Binding Energy Calculations. Journal of Physical Chemistry B, 2021, 125, 8862-8868.	1.2	6
57	Sample mounting and transfer for coupling an ultrahigh vacuum variable temperature beetle scanning tunneling microscope with conventional surface probes. Review of Scientific Instruments, 2001, 72, 157-162.	0.6	4
58	Control of the UTI 100C quadrupole mass spectrometer with an inexpensive microcomputer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1983, 1, 81-83.	0.9	3
59	Summary Abstract: Characterization of multilayer thin films by laser-induced thermal desorption mass spectrometry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1988, 6, 1024-1025.	0.9	2
60	Chemistry of HNO ₃ on Ge(100). Journal of Physical Chemistry B, 1998, 102, 5069-5076.	1.2	2
61	Summary Abstract: X-ray photoelectron spectroscopy studies of the partial hydrogenation of cyanogen on Pt(111): Comparison with HCN and ethylenediamine. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1988, 6, 1135-1137.	0.9	1
62	Summary Abstract: The effect of oriented defects on long-range ordering of hydrocarbon films: Azulene on Pt(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1988, 6, 849-850.	0.9	0
63	Nucleated growth of iron pyrite on highly oriented pyrolytic graphite (hopg) by chemical vapor deposition (CVD). Microscopy and Microanalysis, 2014, 20, 2118-2119.	0.2	0
64	LASER-INDUCED DESORPTION FOURIER TRANSFORM MASS SPECTROMETRY: A MOLECULAR PROBE OF SURFACES AND SURFACE REACTIONS. Advanced Series in Physical Chemistry, 1995, , 275-323.	1.5	0