Poul B Petersen

List of Publications by Year
in descending order

46	3,558	27	46
papers	citations	h-index	g-index

201385 223531

46	46	46	3332
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	ON THE NATURE OF IONS AT THE LIQUID WATER SURFACE. Annual Review of Physical Chemistry, 2006, 57, 333-364.	4.8	416
2	Near-Field Imaging of Nonlinear Optical Mixing in Single Zinc Oxide Nanowires. Nano Letters, 2002, 2, 279-283.	4.5	305
3	Evidence for an Enhanced Hydronium Concentration at the Liquid Water Surface. Journal of Physical Chemistry B, 2005, 109, 7976-7980.	1.2	226
4	Is the liquid water surface basic or acidic? Macroscopic vs. molecular-scale investigations. Chemical Physics Letters, 2008, 458, 255-261.	1.2	192
5	Confirmation of enhanced anion concentration at the liquid water surface. Chemical Physics Letters, 2004, 397, 51-55.	1.2	178
6	Enhanced Concentration of Polarizable Anions at the Liquid Water Surface:Â SHG Spectroscopy and MD Simulations of Sodium Thiocyanide. Journal of Physical Chemistry B, 2005, 109, 10915-10921.	1.2	175
7	Direct experimental validation of the Jonesâ€"Ray effect. Chemical Physics Letters, 2004, 397, 46-50.	1.2	168
8	Source for ultrafast continuum infrared and terahertz radiation. Optics Letters, 2010, 35, 1962.	1.7	158
9	Electrolytes induce long-range orientational order and free energy changes in the H-bond network of bulk water. Science Advances, 2016, 2, e1501891.	4.7	151
10	Probing the Interfacial Structure of Aqueous Electrolytes with Femtosecond Second Harmonic Generation Spectroscopy. Journal of Physical Chemistry B, 2006, 110, 14060-14073.	1.2	137
11	DNAâ€™s Chiral Spine of Hydration. ACS Central Science, 2017, 3, 708-714.	5.3	133
12	Adsorption of Ions to the Surface of Dilute Electrolyte Solutions:â€‰ The Jonesâ^'Ray Effect Revisited. Journal of the American Chemical Society, 2005, 127, 15446-15452.	6.6	125
13	Ultrafast continuum mid-infrared spectroscopy: probing the entire vibrational spectrum in a single laser shot with femtosecond time resolution. Optics Letters, 2012, 37, 2265.	1.7	119
14	Observation of a Zundel-like transition state during proton transfer in aqueous hydroxide solutions. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15154-15159.	3.3	111
15	Strong Intermolecular Vibrational Coupling through Cyclic Hydrogen-Bonded Structures Revealed by Ultrafast Continuum Mid-IR Spectroscopy. Journal of Physical Chemistry B, 2013, 117, 15714-15719.	1.2	83
16	Water dimer hydrogen bond stretch, donor torsion overtone, and â€œin-plane bendâ€•vibrations. Journal of Chemical Physics, 2003, 119, 8927-8937.	1.2	76
17	Decomposition of the Experimental Raman and Infrared Spectra of Acidic Water into Proton, Special Pair, and Counterion Contributions. Journal of Physical Chemistry Letters, 2017, 8, 5246-5252.	2.1	74
18	Oriented chiral water wires in artificial transmembrane channels. Science Advances, 2018, 4, eaao5603.	4.7	69

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19	Structure-Function Relations and Rigidity Percolation in the Shear Properties of Articular Cartilage. Biophysical Journal, 2014, 107, 1721-1730.	0.2	68
20	Extending the Capabilities of Heterodyne-Detected Sum-Frequency Generation Spectroscopy: Probing Any Interface in Any Polarization Combination. Journal of Physical Chemistry C, 2016, 120, 8175-8184.	1.5	68
21	Observation of nitrate ions at the air/water interface by UV-second harmonic generation. Chemical Physics Letters, 2007, 449, 261-265.	1.2	58
22	Proton Transfer in Concentrated Aqueous Hydroxide Visualized Using Ultrafast Infrared Spectroscopy. Journal of Physical Chemistry A, 2011, 115, 3957-3972.	1.1	45
23	Hydrogen Bond Breaking Dynamics of the Water Trimer in the Translational and Librational Band Region of Liquid Water. Journal of the American Chemical Society, 2001, 123, 5938-5941.	6.6	42
24	Terahertz vibrationâ€"rotationâ€"tunneling spectroscopy of water clusters in the translational band region of liquid water. Journal of Chemical Physics, 2001, 114, 3994-4004.	1.2	40
25	Interferometric 2D Sum Frequency Generation Spectroscopy Reveals Structural Heterogeneity of Catalytic Monolayers on Transparent Materials. Journal of Physical Chemistry Letters, 2017, 8, 825-830.	2.1	37
26	Ultrafast Nâ^'H Vibrational Dynamics of Cyclic Doubly Hydrogen-Bonded Homo- and Heterodimers. Journal of Physical Chemistry B, 2008, 112, 13167-13171.	1.2	36
27	Couplings Across the Vibrational Spectrum Caused by Strong Hydrogen Bonds: A Continuum 2D IR Study of the 7-Azaindoleâ€"Acetic Acid Heterodimer. Journal of Physical Chemistry B, 2016, 120, 10768-10779.	1.2	27
28	Solvation Shell Structure of Small Molecules and Proteins by IR-MCR Spectroscopy. Journal of Physical Chemistry Letters, 2017, 8, 611-614.	2.1	24
29	Heterodyne-detected sum frequency generation of water at surfaces with varying hydrophobicity. Journal of Chemical Physics, 2019, 150, 204708.	1.2	23
30	Order of Dry and Wet Mixed-Length Self-Assembled Monolayers. Journal of Physical Chemistry C, 2015, 119, 23943-23950.	1.5	21
31	Deconstructing the Heterogeneity of Surface-Bound Catalysts: Rutile Surface Structure Affects Molecular Properties. Journal of Physical Chemistry C, 2016, 120, 1515-1522.	1.5	21
32	Origin of the 900 cmâ^'1 broad double-hump OH vibrational feature of strongly hydrogen-bonded carboxylic acids. Journal of Chemical Physics, 2015, 142, 104308.	1.2	20
33	Covering the vibrational spectrum with microjoule mid-infrared supercontinuum pulses in nonlinear optical applications. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 1163.	0.9	19
34	Robust Self-Referencing Method for Chiral Sum Frequency Generation Spectroscopy. Journal of Physical Chemistry B, 2015, 119, 12417-12423.	1.2	18
35	Water at surfaces with tunable surface chemistries. Journal of Physics Condensed Matter, 2018, 30, 113001.	0.7	18
36	Origin of the HadÅ¾i ABC structure: An ab initio study. Journal of Chemical Physics, 2015, 143, 184305.	1.2	14

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37	Behavior of Î²-Amyloid 1âˆ’16 at the Airâˆ’Water Interface at Varying pH by Nonlinear Spectroscopy and Molecular Dynamics Simulations. Journal of Physical Chemistry A, 2011, 115, 5873-5880.	1.1	12
38	A combined electronic structure and molecular dynamics approach to computing the OH vibrational feature of strongly hydrogen-bonded carboxylic acids. Journal of Chemical Physics, 2017, 147, 224304.	1.2	12
39	Vibrational tug-of-war: The pKA dependence of the broad vibrational features of strongly hydrogen-bonded carboxylic acids. Journal of Chemical Physics, 2018, 148, 134309.	1.2	11
40	Distinct Binding of Rhenium Catalysts on Nanostructured and Single-Crystalline TiO₂ Surfaces Revealed by Two-Dimensional Sum Frequency Generation Spectroscopy. Journal of Physical Chemistry C, 2018, 122, 26018-26031.	1.5	8
41	Comment on â€œInterfacial pH at an Isolated Silicaâˆ’Water Surfaceâ€. Journal of Physical Chemistry B, 2006, 110, 15037-15038.	1.2	6
42	Phosphate Ions Affect the Water Structure at Functionalized Membrane Surfaces. Langmuir, 2016, 32, 9074-9082.	1.6	5
43	Interpreting Quasi-Thermal Effects in Ultrafast Spectroscopy of Hydrogen-Bonded Systems. Journal of Physical Chemistry A, 2018, 122, 2670-2676.	1.1	5
44	Full spectrum 2D IR spectroscopy reveals below-gap absorption and phonon dynamics in the mid-IR bandgap semiconductor InAs. Journal of Chemical Physics, 2021, 155, 104202.	1.2	2
45	Between a rock and a soft place. Nature Chemistry, 2016, 8, 527-528.	6.6	1
46	Wedge-Based Design for Phase Stable and Phase Accurate Heterodyne-Detected Sum-Frequency Generation Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 2072-2077.	2.1	1