

# Poul B Petersen

## List of Publications by Year in descending order

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46  
papers

3,558  
citations

201674

27  
h-index

223800

46  
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docs citations

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times ranked

3332  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wedge-Based Design for Phase Stable and Phase Accurate Heterodyne-Detected Sum-Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 2072-2077.	4.6	1
2	Full spectrum 2D IR spectroscopy reveals below-gap absorption and phonon dynamics in the mid-IR bandgap semiconductor InAs. <i>Journal of Chemical Physics</i> , 2021, 155, 104202.	3.0	2
3	Heterodyne-detected sum frequency generation of water at surfaces with varying hydrophobicity. <i>Journal of Chemical Physics</i> , 2019, 150, 204708.	3.0	23
4	Interpreting Quasi-Thermal Effects in Ultrafast Spectroscopy of Hydrogen-Bonded Systems. <i>Journal of Physical Chemistry A</i> , 2018, 122, 2670-2676.	2.5	5
5	Vibrational tug-of-war: The pKa dependence of the broad vibrational features of strongly hydrogen-bonded carboxylic acids. <i>Journal of Chemical Physics</i> , 2018, 148, 134309.	3.0	11
6	Water at surfaces with tunable surface chemistries. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 113001.	1.8	18
7	Oriented chiral water wires in artificial transmembrane channels. <i>Science Advances</i> , 2018, 4, eaao5603.	10.3	69
8	Distinct Binding of Rhenium Catalysts on Nanostructured and Single-Crystalline TiO <sub>2</sub> Surfaces Revealed by Two-Dimensional Sum Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2018, 122, 26018-26031.	3.1	8
9	Solvation Shell Structure of Small Molecules and Proteins by IR-MCR Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 611-614.	4.6	24
10	Interferometric 2D Sum Frequency Generation Spectroscopy Reveals Structural Heterogeneity of Catalytic Monolayers on Transparent Materials. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 825-830.	4.6	37
11	DNA's Chiral Spine of Hydration. <i>ACS Central Science</i> , 2017, 3, 708-714.	11.3	133
12	Decomposition of the Experimental Raman and Infrared Spectra of Acidic Water into Proton, Special Pair, and Counterion Contributions. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5246-5252.	4.6	74
13	A combined electronic structure and molecular dynamics approach to computing the OH vibrational feature of strongly hydrogen-bonded carboxylic acids. <i>Journal of Chemical Physics</i> , 2017, 147, 224304.	3.0	12
14	Covering the vibrational spectrum with microjoule mid-infrared supercontinuum pulses in nonlinear optical applications. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 1163.	2.1	19
15	Between a rock and a soft place. <i>Nature Chemistry</i> , 2016, 8, 527-528.	13.6	1
16	Extending the Capabilities of Heterodyne-Detected Sum-Frequency Generation Spectroscopy: Probing Any Interface in Any Polarization Combination. <i>Journal of Physical Chemistry C</i> , 2016, 120, 8175-8184.	3.1	68
17	Couplings Across the Vibrational Spectrum Caused by Strong Hydrogen Bonds: A Continuum 2D IR Study of the 7-Azaindole-Acetic Acid Heterodimer. <i>Journal of Physical Chemistry B</i> , 2016, 120, 10768-10779.	2.6	27
18	Phosphate Ions Affect the Water Structure at Functionalized Membrane Surfaces. <i>Langmuir</i> , 2016, 32, 9074-9082.	3.5	5

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19	Electrolytes induce long-range orientational order and free energy changes in the H-bond network of bulk water. <i>Science Advances</i> , 2016, 2, e1501891.	10.3	151
20	Deconstructing the Heterogeneity of Surface-Bound Catalysts: Rutile Surface Structure Affects Molecular Properties. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1515-1522.	3.1	21
21	Origin of the 900 cm <sup>-1</sup> broad double-hump OH vibrational feature of strongly hydrogen-bonded carboxylic acids. <i>Journal of Chemical Physics</i> , 2015, 142, 104308.	3.0	20
22	Origin of the Had <sup>3/4</sup> i ABC structure: An ab initio study. <i>Journal of Chemical Physics</i> , 2015, 143, 184305.	3.0	14
23	Robust Self-Referencing Method for Chiral Sum Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2015, 119, 12417-12423.	2.6	18
24	Order of Dry and Wet Mixed-Length Self-Assembled Monolayers. <i>Journal of Physical Chemistry C</i> , 2015, 119, 23943-23950.	3.1	21
25	Structure-Function Relations and Rigidity Percolation in the Shear Properties of Articular Cartilage. <i>Biophysical Journal</i> , 2014, 107, 1721-1730.	0.5	68
26	Strong Intermolecular Vibrational Coupling through Cyclic Hydrogen-Bonded Structures Revealed by Ultrafast Continuum Mid-IR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2013, 117, 15714-15719.	2.6	83
27	Ultrafast continuum mid-infrared spectroscopy: probing the entire vibrational spectrum in a single laser shot with femtosecond time resolution. <i>Optics Letters</i> , 2012, 37, 2265.	3.3	119
28	Proton Transfer in Concentrated Aqueous Hydroxide Visualized Using Ultrafast Infrared Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2011, 115, 3957-3972.	2.5	45
29	Behavior of I <sup>2</sup> -Amyloid I <sup>16</sup> at the Air/Water Interface at Varying pH by Nonlinear Spectroscopy and Molecular Dynamics Simulations. <i>Journal of Physical Chemistry A</i> , 2011, 115, 5873-5880.	2.5	12
30	Source for ultrafast continuum infrared and terahertz radiation. <i>Optics Letters</i> , 2010, 35, 1962.	3.3	158
31	Observation of a Zundel-like transition state during proton transfer in aqueous hydroxide solutions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 15154-15159.	7.1	111
32	Is the liquid water surface basic or acidic? Macroscopic vs. molecular-scale investigations. <i>Chemical Physics Letters</i> , 2008, 458, 255-261.	2.6	192
33	Ultrafast N-H Vibrational Dynamics of Cyclic Doubly Hydrogen-Bonded Homo- and Heterodimers. <i>Journal of Physical Chemistry B</i> , 2008, 112, 13167-13171.	2.6	36
34	Observation of nitrate ions at the air/water interface by UV-second harmonic generation. <i>Chemical Physics Letters</i> , 2007, 449, 261-265.	2.6	58
35	ON THE NATURE OF IONS AT THE LIQUID WATER SURFACE. <i>Annual Review of Physical Chemistry</i> , 2006, 57, 333-364.	10.8	416
36	Comment on "Interfacial pH at an Isolated Silica/Water Surface". <i>Journal of Physical Chemistry B</i> , 2006, 110, 15037-15038.	2.6	6

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37	Probing the Interfacial Structure of Aqueous Electrolytes with Femtosecond Second Harmonic Generation Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2006, 110, 14060-14073.	2.6	137
38	Enhanced Concentration of Polarizable Anions at the Liquid Water Surface: SHG Spectroscopy and MD Simulations of Sodium Thiocyanide. <i>Journal of Physical Chemistry B</i> , 2005, 109, 10915-10921.	2.6	175
39	Evidence for an Enhanced Hydronium Concentration at the Liquid Water Surface. <i>Journal of Physical Chemistry B</i> , 2005, 109, 7976-7980.	2.6	226
40	Adsorption of Ions to the Surface of Dilute Electrolyte Solutions: The Jones-Ray Effect Revisited. <i>Journal of the American Chemical Society</i> , 2005, 127, 15446-15452.	13.7	125
41	Direct experimental validation of the Jones-Ray effect. <i>Chemical Physics Letters</i> , 2004, 397, 46-50.	2.6	168
42	Confirmation of enhanced anion concentration at the liquid water surface. <i>Chemical Physics Letters</i> , 2004, 397, 51-55.	2.6	178
43	Water dimer hydrogen bond stretch, donor torsion overtone, and in-plane bend vibrations. <i>Journal of Chemical Physics</i> , 2003, 119, 8927-8937.	3.0	76
44	Near-Field Imaging of Nonlinear Optical Mixing in Single Zinc Oxide Nanowires. <i>Nano Letters</i> , 2002, 2, 279-283.	9.1	305
45	Terahertz vibration-rotation-tunneling spectroscopy of water clusters in the translational band region of liquid water. <i>Journal of Chemical Physics</i> , 2001, 114, 3994-4004.	3.0	40
46	Hydrogen Bond Breaking Dynamics of the Water Trimer in the Translational and Librational Band Region of Liquid Water. <i>Journal of the American Chemical Society</i> , 2001, 123, 5938-5941.	13.7	42