

Water at charged interfaces

Nature Reviews Chemistry

5, 466-485

DOI: [10.1038/s41570-021-00293-2](https://doi.org/10.1038/s41570-021-00293-2)

Citation Report

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Real-time study of on-water chemistry: Surfactant monolayer-assisted growth of a crystalline quasi-2D polymer. <i>Chem</i> , 2021, 7, 2758-2770. | 5.8 | 23 |
| 2 | Osmotic Transport at the Aqueous Graphene and hBN Interfaces: Scaling Laws from a Unified, First-Principles Description. <i>ACS Nano</i> , 2021, 15, 15249-15258. | 7.3 | 21 |
| 3 | Using Neural Network Force Fields to Ascertain the Quality of <i>Ab Initio</i> Simulations of Liquid Water. <i>Journal of Physical Chemistry B</i> , 2021, 125, 10772-10778. | 1.2 | 13 |
| 4 | Combined step potential electrochemical spectroscopy and electrochemical impedance spectroscopy analysis of the glassy carbon electrode in an aqueous electrolyte. <i>Electrochimica Acta</i> , 2021, 396, 139220. | 2.6 | 8 |
| 5 | Reduced Ionic Conductivity but Enhanced Local Ionic Conductivity in Nanochannels. <i>Langmuir</i> , 2021, 37, 12577-12585. | 1.6 | 4 |
| 6 | Facet-Dependent Surface Charge and Hydration of Semiconducting Nanoparticles at Variable pH. <i>Advanced Materials</i> , 2021, 33, e2106229. | 11.1 | 33 |
| 7 | Molecular Nature of Structured Water in the Light-Induced Interfacial Capacitance Changes at the Bioelectric Interface. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 9982-9988. | 2.1 | 1 |
| 8 | Nanoparticles formed during mineral-fluid interactions. <i>Chemical Geology</i> , 2021, 586, 120614. | 1.4 | 13 |
| 9 | Determining the Surface Potential of Charged Aqueous Interfaces Using Nonlinear Optical Methods. <i>Journal of Physical Chemistry C</i> , 2021, 125, 25307-25315. | 1.5 | 11 |
| 10 | Tuning the Dielectric Response of Water in Nanoconfinement through Surface Wettability. <i>ACS Nano</i> , 2021, 15, 20311-20318. | 7.3 | 10 |
| 11 | On the Unexpectedly High Capacitance of the Metal Nanoparticle/Water Interface – Molecular Level Insights into the Electrical Double Layer. <i>Angewandte Chemie</i> , 0, , . | 1.6 | 3 |
| 12 | Unexpectedly High Capacitance of the Metal Nanoparticle/Water Interface: Molecular-Level Insights into the Electrical Double Layer. <i>Angewandte Chemie - International Edition</i> , 2022, 61, , . | 7.2 | 12 |
| 13 | Enhancing breakdown strength and lifetime of multilayer dielectric films by using high temperature polycarbonate skin layers. <i>Energy Storage Materials</i> , 2022, 45, 494-503. | 9.5 | 22 |
| 14 | Confined pulsed diffuse layer charging for nanoscale electrodeposition with an STM. <i>Nanoscale Advances</i> , 2022, 4, 1182-1190. | 2.2 | 2 |
| 15 | In Situ Investigation on Life-Time Dynamic Structure-Performance Correlation Toward Electrocatalyst Service Behavior in Water Splitting. <i>Advanced Functional Materials</i> , 2022, 32, , . | 7.8 | 21 |
| 16 | Influence of an electrified interface on the entropy and energy of solvation of methanol oxidation intermediates on platinum(111) under explicit solvation. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 4251-4261. | 1.3 | 5 |
| 17 | Classical and Nonclassical Nucleation and Growth Mechanisms for Nanoparticle Formation. <i>Annual Review of Physical Chemistry</i> , 2022, 73, 453-477. | 4.8 | 32 |
| 18 | Quantitative and qualitative studies for real monitoring of interfacial molecular water. <i>Journal of Colloid and Interface Science</i> , 2022, 613, 311-319. | 5.0 | 10 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Mechanism of Energy Storage and Transformation in the Mitochondria at the Water-Membrane Interface. <i>Biochemistry (Moscow)</i> , 2022, 87, 179-190. | 0.7 | 3 |
| 20 | Electrochemistry under confinement. <i>Chemical Society Reviews</i> , 2022, 51, 2491-2543. | 18.7 | 52 |
| 21 | Electrochemical Energy Storage in Aqueous Solution. <i>Chemical Reviews</i> , 2022, 102, 1-100. | 20.4 | 104 |
| 22 | Probing and Visualizing Interfacial Charge at Surfaces in Aqueous Solution. <i>Annual Review of Analytical Chemistry</i> , 2022, 15, 247-267. | 2.8 | 9 |
| 23 | On swelling behaviours of a bentonite under different water contents. <i>Geotechnique</i> , 2024, 74, 64-80. | 2.2 | 11 |
| 24 | Electronic to ionic transduction of the electric field applied to PEDOT:PSS substrates to the cell cultures on top. <i>Bioelectrochemistry</i> , 2022, 145, 108099. | 2.4 | 1 |
| 25 | Monosodium glutamate, an effective electrolyte additive to enhance cycling performance of Zn anode in aqueous battery. <i>Nano Energy</i> , 2022, 98, 107220. | 8.2 | 144 |
| 26 | Application of the Supercapacitor for Energy Storage in China: Role and Strategy. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 354. | 1.3 | 38 |
| 27 | Specific Ion Effects in Different Media: Current Status and Future Challenges. <i>Journal of Physical Chemistry B</i> , 2021, 125, 13840-13849. | 1.2 | 15 |
| 28 | Water as a contrast agent to quantify surface chemistry and physics using second harmonic scattering and imaging: A perspective. <i>Applied Physics Letters</i> , 2022, 120, . | 1.5 | 9 |
| 29 | Enhanced nanofluidic transport in activated carbon nanoconduits. <i>Nature Materials</i> , 2022, 21, 696-702. | 13.3 | 36 |
| 30 | Molecular dynamics simulations of the evaporation of hydrated ions from aqueous solution. <i>Communications Chemistry</i> , 2022, 5, . | 2.0 | 15 |
| 31 | Effect of Surface Pre-Charging and Electric Field on the Contact Electrification between Liquid and Solid. <i>Journal of Physical Chemistry C</i> , 2022, 126, 8897-8905. | 1.5 | 11 |
| 32 | Atomic Interface-Exciting Catalysis on Cobalt Nitride-Oxide for Accelerating Hydrogen Generation. <i>Small</i> , 2022, 18, e2107417. | 5.2 | 25 |
| 33 | How to Gain Atomistic Insights on Reactions at the Water/Solid Interface?. <i>ACS Catalysis</i> , 2022, 12, 6294-6301. | 5.5 | 17 |
| 34 | Applying Classical, <i>Ab Initio</i> , and Machine-Learning Molecular Dynamics Simulations to the Liquid Electrolyte for Rechargeable Batteries. <i>Chemical Reviews</i> , 2022, 122, 10970-11021. | 23.0 | 138 |
| 35 | Understanding the Electric Double-Layer Structure, Capacitance, and Charging Dynamics. <i>Chemical Reviews</i> , 2022, 122, 10821-10859. | 23.0 | 186 |
| 36 | Counting the Water: Characterize the Hydration Level of Aluminum Adjuvants Using Contrast Matching Small-Angle Neutron Scattering. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, , 129285. | 2.3 | 2 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Phospholipid acyl tail affects lipid headgroup orientation and membrane hydration. <i>Journal of Chemical Physics</i> , 2022, 156, . | 1.2 | 7 |
| 38 | The Role of Surface Chemistry in the Orientational Behavior of Water at an Interface. <i>Journal of Physical Chemistry B</i> , 2022, 126, 4697-4710. | 1.2 | 3 |
| 39 | A Happy Getâ€œTogether â€œ Probing Electrochemical Interfaces by Nonâ€œLinear Vibrational Spectroscopy. <i>Chemistry - A European Journal</i> , 2022, 28, . | 1.7 | 5 |
| 40 | Submolecular Insights into Interfacial Water by Hydrogen-Sensitive Scanning Probe Microscopy. <i>Accounts of Chemical Research</i> , 2022, 55, 1680-1692. | 7.6 | 6 |
| 41 | Continuum theories of structured dielectrics. <i>Europhysics Letters</i> , 2022, 139, 27002. | 0.7 | 2 |
| 42 | Defect-rich ultrathin poly-heptazine-imide-framework nanosheets with alkali-ion doping for photocatalytic solar hydrogen and selective benzylamine oxidation. <i>Nano Research</i> , 2022, 15, 8760-8770. | 5.8 | 7 |
| 43 | Role of water structure in alkaline water electrolysis. <i>IScience</i> , 2022, 25, 104835. | 1.9 | 8 |
| 44 | Ion Adsorption and Desorption at the CaF ₂ â€œWater Interface Probed by Flow Experiments and Vibrational Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2022, 61, . | 7.2 | 4 |
| 45 | Ion Adsorption and Desorption at the CaF ₂ â€œWater Interface Probed by Flow Experiments and Vibrational Spectroscopy. <i>Angewandte Chemie</i> , 0, , . | 1.6 | 0 |
| 46 | Effects of surface rigidity and metallicity on dielectric properties and ion interactions at aqueous hydrophobic interfaces. <i>Journal of Chemical Physics</i> , 2022, 157, . | 1.2 | 5 |
| 47 | Measuring anion binding at biomembrane interfaces. <i>Nature Communications</i> , 2022, 13, . | 5.8 | 12 |
| 48 | Investigating aqueous mineral interfaces using sum frequency generation spectroscopy. , 2023, , . | | 0 |
| 49 | A molecular dynamics study of the nonlinear spectra and structure of charged (101) quartz/water interfaces. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 25118-25133. | 1.3 | 3 |
| 50 | Stable Water-Floating Transistor with Recyclability. <i>Materials Horizons</i> , 0, , . | 6.4 | 0 |
| 51 | The dielectric function profile across the water interface through surface-specific vibrational spectroscopy and simulations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, . | 3.3 | 18 |
| 53 | Structural and charge transfer properties of ion intercalated 2D and bulk ice. <i>Journal of Chemical Physics</i> , 0, , . | 1.2 | 0 |
| 54 | Wien effect in interfacial water dissociation through proton-permeable graphene electrodes. <i>Nature Communications</i> , 2022, 13, . | 5.8 | 13 |
| 55 | Exploring the Nanoconfinement Effect Using 2D Capillaries. <i>Accounts of Materials Research</i> , 0, , . | 5.9 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 56 | Chemical transformations and transport phenomena at interfaces. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2023, 13, . | 6.2 | 5 |
| 57 | Understanding water on surfaces, electrodes, and in bulk by vibrational spectroscopies. , 2024, , 150-170. | | 1 |
| 58 | The Consequences of Water Interactions with Nitrogen-Containing Carbonaceous Quantum Dotsâ€”The Mechanistic Studies. International Journal of Molecular Sciences, 2022, 23, 14292. | 1.8 | 3 |
| 59 | In situ investigation of catalytic interfaces by scanning probe microscopy under electrochemical conditions. , 2024, , 656-680. | | 1 |
| 60 | The physics behind water irregularity. Physics Reports, 2023, 998, 1-68. | 10.3 | 15 |
| 61 | Super-Resolution Fluorescence Imaging for Semiconductor Nanoscale Metrology and Inspection. Nano Letters, 2022, 22, 10080-10087. | 4.5 | 7 |
| 62 | Influence of the Hydrogen-Bonding Environment on Vibrational Coupling in the Electrical Double Layer at the Silica/Aqueous Interface. Journal of Physical Chemistry C, 2022, 126, 21734-21744. | 1.5 | 4 |
| 63 | Wide-field optical imaging of electrical charge and chemical reactions at the solidâ€”liquid interface. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 0 |
| 64 | Electrokinetic, electrochemical, and electrostatic surface potentials of the pristine water liquidâ€”vapor interface. Journal of Chemical Physics, 2022, 157, . | 1.2 | 7 |
| 65 | Interfacial Liquid Water on Graphite, Graphene, and 2D Materials. ACS Nano, 2023, 17, 51-69. | 7.3 | 11 |
| 66 | Probing Silicaâ€”Kaolinite Interactions with Sum Frequency Generation Spectroscopy. Langmuir, 2022, 38, 15984-15994. | 1.6 | 1 |
| 67 | Direct Probe of Electrochemical Pseudocapacitive pH Jump at a Graphene Electrode**. Angewandte Chemie - International Edition, 2023, 62, . | 7.2 | 8 |
| 68 | Direct Probe of Electrochemical Pseudocapacitive pH Jump at a Graphene Electrode. Angewandte Chemie, 0, , . | 1.6 | 0 |
| 69 | Dielectric Properties of Nanoconfined Water from <i>Ab Initio</i> Thermopotentiostat Molecular Dynamics. Journal of Chemical Theory and Computation, 2023, 19, 1035-1043. | 2.3 | 11 |
| 70 | Ion Concentration Influences the Charge Transfer Due to a Waterâ€”Air Contact Line Moving over a Hydrophobic Surface: Charge Measurements and Theoretical Models. Langmuir, 2023, 39, 1826-1837. | 1.6 | 8 |
| 71 | Sum-frequency vibrational spectroscopy of centrosymmetric molecule at interfaces . Journal of Chemical Physics, 0, , . | 1.2 | 3 |
| 72 | A dendrite-free and anticaustic Zn anode enabled by high current-induced reconstruction of the electrical double layer. Chemical Communications, 2023, 59, 2437-2440. | 2.2 | 8 |
| 73 | The 3D structures of interfaces between solid electrodes and liquid electrolytes probed by atomic force measurements. , 2024, , 638-655. | | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 74 | Bonding of water to metal surfaces. , 2024, , 189-202. | | 0 |
| 75 | Pore confined time-of-flight secondary ion electrochemical mass spectrometry. Chemical Society Reviews, 2023, 52, 2596-2616. | 18.7 | 5 |
| 76 | Nanofluidics at the crossroads. Journal of Chemical Physics, 2023, 158, . | 1.2 | 11 |
| 77 | High electric field-induced ferroelectric loss of polymer/paraelectric barium titanate particle nanocomposites. Chemical Engineering Journal, 2023, 463, 142490. | 6.6 | 2 |
| 78 | Ordered/Disordered Structures of Water at Solid/Liquid Interfaces. Crystals, 2023, 13, 263. | 1.0 | 1 |
| 79 | Addition of Dioxane in Electrolyte Promotes (002)-Textured Zinc Growth and Suppressed Side Reactions in Zinc-Ion Batteries. ACS Nano, 2023, 17, 3765-3775. | 7.3 | 99 |
| 80 | Remote surface charge detection device for water with excess charge. Engineering Research Express, 2023, 5, 015029. | 0.8 | 0 |
| 81 | Nanointerfaces: Concepts and Strategies for Optical and X-ray Spectroscopic Characterization. ACS Physical Chemistry Au, 0, , . | 1.9 | 0 |
| 82 | Wafer-scale Fabrication of Hierarchically Porous Silicon and Silica by Active Nanoparticle-assisted Chemical Etching and Pseudomorphic Thermal Oxidation. Small, 0, , 2206842. | 5.2 | 1 |
| 83 | Nanoscale Electron Transfer Variations at Electrocatalyst-Electrolyte Interfaces Resolved by <i>in Situ</i> Conductive Atomic Force Microscopy. Journal of the American Chemical Society, 2023, 145, 5242-5251. | 6.6 | 3 |
| 84 | Voltage-Dependent FTIR and 2D Infrared Spectroscopies within the Electric Double Layer Using a Plasmonic and Conductive Electrode. Journal of Physical Chemistry B, 2023, 127, 2083-2091. | 1.2 | 5 |
| 85 | Light-Driven Conversion of Silicon Nitride Nanopore to Nanonet for Single-Protein Trapping Analysis. Advanced Materials, 2023, 35, . | 11.1 | 4 |
| 86 | Chemistry governs water organization at a graphene electrode. Nature, 2023, 615, E1-E2. | 18.7 | 15 |
| 87 | Quantifying the Molecular Polarization Response of Liquid Water Interfaces at Heterogeneously Charged Surfaces. Journal of Chemical Theory and Computation, 2023, 19, 1843-1852. | 2.3 | 1 |
| 88 | Hydration at Highly Crowded Interfaces. Physical Review Letters, 2023, 130, . | 2.9 | 1 |
| 89 | Polarity-dependence of the nonlinear dielectric response in interfacial water. Journal of Chemical Physics, 2023, 158, . | 1.2 | 3 |
| 90 | Forced Interactions: Ionic Polymers at Charged Surfactant Interfaces. Journal of Physical Chemistry B, 2023, 127, 2829-2836. | 1.2 | 2 |
| 91 | Adsorption of ions and solutes at electrified metal-aqueous interfaces: Insights from THz spectroscopy and simulations. , 2024, , 66-80. | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 92 | Low-Concentration Redox-Electrolytes for High-Rate and Long-Life Zinc Metal Batteries. <i>Small</i> , 0, , . | 5.2 | 11 |
| 93 | Momentum-dependent sum-frequency vibrational spectroscopy of bonded interface layer at charged water interfaces. <i>Science Advances</i> , 2023, 9, , . | 4.7 | 2 |
| 94 | Heterogeneous Electrocatalysis of Carbon Dioxide to Methane. <i>Methane</i> , 2023, 2, 148-175. | 0.8 | 3 |
| 98 | X-ray photoelectron spectroscopy meets electrochemistry: From UHV to operando conditions. , 2024, , 283-299. | | 0 |
| 101 | Orientational Ordering in Nano-confined Polar Liquids. <i>Nano Letters</i> , 2023, 23, 5548-5554. | 4.5 | 4 |
| 103 | Water/Solid Interface in Thermal- and Electrocatalysis for Wetting and Non-Wetting Surfaces: Interactions and Models. , 2024, , 699-712. | | 0 |
| 110 | Unveiling the effects of ions in the electric double layer on the carbon dioxide reduction reaction. <i>Materials Chemistry Frontiers</i> , 2023, 7, 2750-2763. | 3.2 | 0 |
| 114 | Current understanding of ions and charged surfactants at aqueous solid interfaces. , 2024, , 230-239. | | 1 |
| 115 | Experimental and theoretical understanding of processes at solid-liquid interfaces at molecular resolution. , 2024, , 8-28. | | 0 |
| 121 | Iontronic components: From liquid- to solid-states. <i>Nano Research</i> , 0, , . | 5.8 | 0 |
| 132 | Designing active oxides for a durable oxygen evolution reaction. , 2023, 2, 817-827. | | 6 |
| 143 | Is water activity the elephant in the room?. <i>Nature Catalysis</i> , 2023, 6, 746-747. | 16.1 | 0 |
| 165 | Local reaction environment in electrocatalysis. <i>Chemical Society Reviews</i> , 2024, 53, 2022-2055. | 18.7 | 2 |
| 176 | Geochemical applications of mineral-water interactions. , 2024, , . | | 0 |