# Himanshu Mishra

List of Publications by Year
in descending order



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|---|---|---|---|
| 46 papers | 1,496 citations | 279701 23 h-index | 315616 38 g-index |
| 52 all docs | 52 docs citations | 52 times ranked | 1668 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | BrÃ¸nsted basicity of the airâ€“water interface. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18679-18683. | 3.3 | 159 |
| 2 | The hydrogel template method for fabrication of homogeneous nano/microparticles. Journal of Controlled Release, 2010, 141, 314-319. | 4.8 | 128 |
| 3 | Protonation and Oligomerization of Gaseous Isoprene on Mildly Acidic Surfaces: Implications for Atmospheric Chemistry. Journal of Physical Chemistry A, 2012, 116, 6027-6032. | 1.1 | 96 |
| 4 | Biomimetic coating-free surfaces for long-term entrapment of air under wetting liquids. Nature Communications, 2018, 9, 3606. | 5.8 | 85 |
| 5 | Electrification at waterâ€“hydrophobe interfaces. Nature Communications, 2020, 11, 5285. | 5.8 | 75 |
| 6 | Time-Dependent Wetting Behavior of PDMS Surfaces with Bioinspired, Hierarchical Structures. ACS Applied Materials & Interfaces, 2016, 8, 8168-8174. | 4.0 | 67 |
| 7 | Simple-to-Apply Wetting Model to Predict Thermodynamically Stable and Metastable Contact Angles on Textured/Rough/Patterned Surfaces. Journal of Physical Chemistry C, 2017, 121, 5642-5656. | 1.5 | 64 |
| 8 | Doubly Reentrant Cavities Prevent Catastrophic Wetting Transitions on Intrinsically Wetting Surfaces. ACS Applied Materials & Interfaces, 2017, 9, 21532-21538. | 4.0 | 64 |
| 9 | Mitigating cavitation erosion using biomimetic gas-entrapping microtextured surfaces (GEMS). Science Advances, 2020, 6, eaax6192. | 4.7 | 60 |
| 10 | Anions dramatically enhance proton transfer through aqueous interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10228-10232. | 3.3 | 55 |
| 11 | Evaluating the potential of superhydrophobic nanoporous alumina membranes for direct contact membrane distillation. Journal of Colloid and Interface Science, 2019, 533, 723-732. | 5.0 | 50 |
| 12 | Hofmeister effects in micromolar electrolyte solutions. Journal of Chemical Physics, 2012, 136, 154707. | 1.2 | 44 |
| 13 | On the formation of hydrogen peroxide in water microdroplets. Chemical Science, 2022, 13, 2574-2583. | 3.7 | 44 |
| 14 | The chemical reactions in electrosprays of water do not always correspond to those at the pristine airâ€“water interface. Chemical Science, 2019, 10, 2566-2577. | 3.7 | 43 |
| 15 | Assessing omniphobicity by immersion. Journal of Colloid and Interface Science, 2019, 534, 156-162. | 5.0 | 38 |
| 16 | Branched Polymeric Media: Boron-Chelating Resins from Hyperbranched Polyethylenimine. Environmental Science & Technology, 2012, 46, 8998-9004. | 4.6 | 35 |
| 17 | Bulk and Surface Aqueous Speciation of Calcite: Implications for Low-Salinity Waterflooding of Carbonate Reservoirs. SPE Journal, 2018, 23, 84-101. | 1.7 | 33 |
| 18 | Biomimetic Coating-free Superomniphobicity. Scientific Reports, 2020, 10, 7934. | 1.6 | 33 |

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|---|---|---|---|
| 19 | Tropospheric aerosol as a reactive intermediate. Faraday Discussions, 2013, 165, 407. | 1.6 | 29 |
| 20 | Bio-inspired gas-entrapping membranes (GEMs) derived from common water-wet materials for green desalination. Journal of Membrane Science, 2019, 588, 117185. | 4.1 | 27 |
| 21 | Nuclear Quantum Effects in Hydrophobic Nanoconfinement. Journal of Physical Chemistry Letters, 2019, 10, 5530-5535. | 2.1 | 26 |
| 22 | The Airâ€"Water Interface of Water Microdroplets Formed by Ultrasonication or Condensation Does Not Produce H<sub>2</sub>O<sub>2</sub>. Journal of Physical Chemistry Letters, 2021, 12, 11422-11429. | 2.1 | 25 |
| 23 | A molecular to macro level assessment of direct contact membrane distillation for separating organics from water. Journal of Membrane Science, 2020, 608, 118140. | 4.1 | 23 |
| 24 | Superhydrophobicity and size reduction enabled Halobates (Insecta: Heteroptera, Gerridae) to colonize the open ocean. Scientific Reports, 2020, 10, 7785. | 1.6 | 22 |
| 25 | Wetting of water on graphene nanopowders of different thicknesses. Applied Physics Letters, 2018, 112, . | 1.5 | 20 |
| 26 | How particleâ€"particle and liquidâ€"particle interactions govern the fate of evaporating liquid marbles. Soft Matter, 2021, 17, 7628-7644. | 1.2 | 19 |
| 27 | Thermomechanical and Thermal Contact Characteristics of Bismuth Telluride Films Electrodeposited on Carbon Nanotube Arrays. Advanced Materials, 2009, 21, 4280-4283. | 11.1 | 14 |
| 28 | Quantum chemical insights into the dissociation of nitric acid on the surface of aqueous electrolytes. International Journal of Quantum Chemistry, 2013, 113, 413-417. | 1.0 | 14 |
| 29 | Suppression of Leidenfrost effect on superhydrophobic surfaces. Physics of Fluids, 2021, 33, . | 1.6 | 14 |
| 30 | Rendering SiO<sub>2</sub>/Si Surfaces Omniphobic by Carving Gas-Entrapping Microtextures Comprising Reentrant and Doubly Reentrant Cavities or Pillars. Journal of Visualized Experiments, 2020, , . | 0.2 | 12 |
| 31 | Nature-Inspired Superhydrophobic Sand Mulches Increase Agricultural Productivity and Water-Use Efficiency in Arid Regions. ACS Agricultural Science and Technology, 2022, 2, 276-288. | 1.0 | 12 |
| 32 | Counterintuitive Wetting Transitions in Doubly Reentrant Cavities as a Function of Surface Makeâ€Up, Hydrostatic Pressure, and Cavity Aspect Ratio. Advanced Materials Interfaces, 2020, 7, 2001268. | 1.9 | 11 |
| 33 | Bulk and Surface Aqueous Speciation of Calcite: Implications for Low-Salinity Waterflooding of Carbonate Reservoirs. , 2016, , . | | 10 |
| 34 | Reply to the â€˜Comment on â€œThe chemical reactions in electrosprays of water do not always correspond to those at the pristine airâ€"water interfaceâ€â€™ by A. J. Colussi and S. Enami, <i>Chem. Sci.</i>, 2019, <b>10</b>, DOI: 10.1039/c9sc00991d. Chemical Science, 2019, 10, 8256-8261. | 3.7 | 10 |
| 35 | Proof-of-Concept for Gas-Entrapping Membranes Derived from Water-Loving SiO<sub>2</sub>/Si/SiO<sub>2</sub> Wafers for Green Desalination. Journal of Visualized Experiments, 2020, , . | 0.2 | 9 |
| 36 | Nature-inspired wax-coated jute bags for reducingÂpost-harvest storage losses. Scientific Reports, 2021, 11, 15354. | 1.6 | 7 |

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|---|---|---|---|
| 37 | Zwitterions Layer at but Do Not Screen Electrified Interfaces. Journal of Physical Chemistry B, 2022, 126, 1852-1860. | 1.2 | 5 |
| 38 | Why did only one genus of insects, Halobates, take to the high seas?. PLoS Biology, 2022, 20, e3001570. | 2.6 | 4 |
| 39 | A firstâ€principles approach for treating wastewaters. International Journal of Quantum Chemistry, 2021, 121, e26501. | 1.0 | 3 |
| 40 | Direct imaging of polymer filaments pulled from rebounding drops. Soft Matter, 2022, 18, 5097-5105. | 1.2 | 2 |
| 41 | Effects of superhydrophobic sand mulching on evapotranspiration and phenotypic responses in tomato ( <i>Solanum lycopersicum</i> ) plants under normal and reduced irrigation. Plant-Environment Interactions, 0, , . | 0.7 | 1 |
| 42 | Examining the best-fit paradigm for FEM at element level. Sadhana - Academy Proceedings in Engineering Sciences, 2004, 29, 573-588. | 0.8 | 0 |
| 43 | Cover Image, Volume 121, Issue 5. International Journal of Quantum Chemistry, 2021, 121, e26288. | 1.0 | 0 |
| 44 | 10.1063/5.0064040.3. , 2021, , . | | 0 |
| 45 | 10.1063/5.0064040.7. , 2021, , . | | 0 |
| 46 | 10.1063/5.0064040.4. , 2021, , . | | 0 |