Himansu S Biswal

List of Publications by Year
in descending order

63 papers	2,021 citations	218592 26 h-index	254106 43 g-index
63 all docs	63 docs citations	63 times ranked	1778 citing authors

#	Article	IF	Citations
1	Nature of the Nâˆ’HÂ·Â·Â·S Hydrogen Bond. Journal of Physical Chemistry A, 2009, 113, 12763-12773.	1.1	138
2	Sulfur, Not Too Far Behind O, N, and C: SHÂ·Â·Â·Ï€ Hydrogen Bond. Journal of Physical Chemistry A, 2009, 113, 12774-12782.	1.1	132
3	Oâˆ’HÂ·Â·Â·O versus Oâˆ’HÂ·Â·Â·S Hydrogen Bonding I: Experimental and Computational Studies on the <i>p</i>-CresolÂ·H₂O and <i>p</i>-CresolÂ·H₂S Complexes. Journal of Physical Chemistry A, 2009, 113, 5633-5643.	1.1	99
4	Strength of NHÂ·Â·Â·S Hydrogen Bonds in Methionine Residues Revealed by Gas-Phase IR/UV Spectroscopy. Journal of Physical Chemistry Letters, 2012, 3, 755-759.	2.1	93
5	Noncovalent Carbonâ€Bonding Interactions in Proteins. Angewandte Chemie - International Edition, 2018, 57, 16496-16500.	7.2	93
6	The Prodigious Hydrogen Bonds with Sulfur and Selenium in Molecular Assemblies, Structural Biology, and Functional Materials. Accounts of Chemical Research, 2020, 53, 1580-1592.	7.6	85
7	Gas-Phase Folding of a Two-Residue Model Peptide Chain: On the Importance of an Interplay between Experiment and Theory. Journal of the American Chemical Society, 2010, 132, 11860-11863.	6.6	83
8	Oâˆ’HÂ·Â·Â·O versus Oâˆ’HÂ·Â·Â·S Hydrogen Bonding. 2. Alcohols and Thiols as Hydrogen Bond Acceptors. Journal of Physical Chemistry A, 2010, 114, 6944-6955.	1.1	78
9	Critical Assessment of the Strength of Hydrogen Bonds between the Sulfur Atom of Methionine/Cysteine and Backbone Amides in Proteins. Journal of Physical Chemistry Letters, 2015, 6, 1385-1389.	2.1	76
10	Nature and strength of sulfur-centred hydrogen bonds: laser spectroscopic investigations in the gas phase and quantum-chemical calculations. International Reviews in Physical Chemistry, 2015, 34, 99-160.	0.9	71
11	Unraveling the Mechanisms of Nonradiative Deactivation in Model Peptides Following Photoexcitation of a Phenylalanine Residue. Journal of the American Chemical Society, 2012, 134, 20340-20351.	6.6	66
12	Isolated Monohydrates of a Model Peptide Chain: Effect of a First Water Molecule on the Secondary Structure of a Capped Phenylalanine. Journal of the American Chemical Society, 2011, 133, 3931-3942.	6.6	65
13	Noncovalent interactions in proteins and nucleic acids: beyond hydrogen bonding and Ï€-stacking. Chemical Society Reviews, 2022, 51, 4261-4286.	18.7	57
14	Experimental evidence of Oâ€“Hâ€”S hydrogen bonding in supersonic jet. Journal of Chemical Physics, 2008, 129, 184311.	1.2	56
15	Oâˆ’HÂ·Â·Â·O versus Oâˆ’HÂ·Â·Â·S Hydrogen Bonding. 3. IRâˆ’UV Double Resonance Study of Hydrogen Bonded Complexes of<i>p</i>-Cresol with Diethyl Ether and Its Sulfur Analog. Journal of Physical Chemistry A, 2010, 114, 5947-5957.	1.1	52
16	In Silico Identification of Potential Natural Product Inhibitors of Human Proteases Key to SARS-CoV-2 Infection. Molecules, 2020, 25, 3822.	1.7	51
17	Spectroscopic Evidences for Strong Hydrogen Bonds with Selenomethionine in Proteins. Journal of Physical Chemistry Letters, 2017, 8, 794-800.	2.1	49
18	Thioamide, a Hydrogen Bond Acceptor in Proteins and Nucleic Acids. Journal of Physical Chemistry Letters, 2017, 8, 4573-4579.	2.1	45

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19	Hydrogen Bonds Involving Sulfur: New Insights from ab Initio Calculations and Gas Phase Laser Spectroscopy. Challenges and Advances in Computational Chemistry and Physics, 2015, , 15-45.	0.6	40
20	Critical Assessment of the Interaction between DNA and Choline Amino Acid Ionic Liquids: Evidences of Multimodal Binding and Stability Enhancement. ACS Central Science, 2018, 4, 1642-1651.	5.3	40
21	Adduct-based p-doping of organic semiconductors. Nature Materials, 2021, 20, 1248-1254.	13.3	40
22	Amino-Acid-Based Ionic Liquids for the Improvement in Stability and Activity of Cytochrome c: A Combined Experimental and Molecular Dynamics Study. Journal of Physical Chemistry B, 2019, 123, 10100-10109.	1.2	38
23	OH <i>Â·</i> <i>Â·</i> <i>Â·</i> X (X = O, S) hydrogen bonding in thetrahydrofuran and tetrahydrothiophene. Journal of Chemical Physics, 2011, 135, 134306.	1.2	34
24	Structure of the Indoleâˆ'Benzene Dimer Revisited. Journal of Physical Chemistry A, 2011, 115, 9485-9492.	1.1	33
25	Intra-residue interactions in proteins: interplay between serine or cysteine side chains and backbone conformations, revealed by laser spectroscopy of isolated model peptides. Physical Chemistry Chemical Physics, 2015, 17, 2169-2178.	1.3	31
26	N-Heterocyclic Carbeneâ€"Carbodiimide (â€œNHCâ€"CDIâ€) Adduct or Zwitterionic-Type Neutral Amidinate-Supported Magnesium(II) and Zinc(II) Complexes. Inorganic Chemistry, 2017, 56, 9535-9546.	1.9	30
27	Seâ‹…â‹…â‹…O/S and Sâ‹…â‹…â‹…O Chalcogen Bonds in Small Molecules and Proteins: A Combined CSD and PDB Study. ChemBioChem, 2022, 23, e202100498.	1.3	27
28	Nature and Strength of Mâ€"HÂ·Â·Â·S and Mâ€"HÂ·Â·Â·Se (M = Mn, Fe, & Co) Hydrogen Bond. Journal of Physical Chemistry A, 2019, 123, 2227-2236.	1.1	23
29	Non-covalent interactions with inverted carbon: a carbo-hydrogen bond or a new type of hydrogen bond?. Physical Chemistry Chemical Physics, 2020, 22, 8988-8997.	1.3	21
30	Spodium Bonds in Biological Systems: Expanding the Role of Zn in Protein Structure and Function. Journal of Chemical Information and Modeling, 2021, 61, 3945-3954.	2.5	21
31	Hydrogen Bonds with Chalcogens: Looking Beyond the Second Row of the Periodic Table. Journal of the Indian Institute of Science, 2020, 100, 77-100.	0.9	17
32	Carbon-Centered Hydrogen Bonds in Proteins. Journal of Chemical Information and Modeling, 2022, 62, 1998-2008.	2.5	17
33	The Role of Molecular Polarizability in Designing Organic Piezoelectric Materials. ChemistrySelect, 2016, 1, 4326-4331.	0.7	14
34	Noncovalent Carbonâ€Bonding Interactions in Proteins. Angewandte Chemie, 2018, 130, 16734-16738.	1.6	14
35	Efficient SO₂ Capture through Multiple Chalcogen Bonds, Sulfurâ€Centered Hydrogen Bonds and Sâ€¢â€¢â€¢Ï€ Interactions: A Computational Study. ChemistrySelect, 2016, 1, 1688-1694.	0.7	13
36	Nature and Strength of the Innerâ€Core Hâ‹…â‹…â‹…H Interactions in Porphyrinoids. ChemPhysChem, 2017, 18, 3625-3633.	1.0	13

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37	Experimental and theoretical studies on the oxidation of lomefloxacin by alkaline permanganate. Desalination and Water Treatment, 2016, 57, 10826-10838.	1.0	11
38	A liquid crucible model for aggregation of phenylacetylene in the gas phase. Physical Chemistry Chemical Physics, 2019, 21, 13623-13632.	1.3	11
39	Nonâ€conventional Hydrogen Bonding and Aromaticity: A Systematic Study on Model Nucleobases and Their Solvated Clusters. ChemPhysChem, 2020, 21, 1826-1835.	1.0	11
40	Gram-Scale Synthesis of 1,8-Naphthyridines in Water: The Friedlander Reaction Revisited. ACS Omega, 2021, 6, 19304-19313.	1.6	11
41	Structure, bonding and energetics of N-heterocyclic carbene (NHC) stabilized low oxidation state group 2 (Be, Mg, Ca, Sr and Ba) metal complexes: A theoretical study. Journal of Chemical Sciences, 2014, 126, 1781-1788.	0.7	10
42	Hydrogen-bond-driven thiouracil dissolution in aqueous ionic liquid: A combined microscopic, spectroscopic and molecular dynamics study. Journal of Molecular Liquids, 2020, 319, 114275.	2.3	10
43	Implication of Threonineâ€Based Ionic Liquids on the Structural Stability, Binding and Activity of Cytochromeâ€…c. ChemPhysChem, 2020, 21, 2525-2535.	1.0	9
44	Unravelling the electronic nature of Câ€“Fâ‹¯Oâ€“C non-covalent interaction in proteins and small molecules in the solid state. Physical Chemistry Chemical Physics, 2020, 22, 25704-25711.	1.3	9
45	Nominal Effect of Mg Intercalation on the Superconducting Properties of 2Hâ€“NbSe₂. Inorganic Chemistry, 2021, 60, 4588-4598.	1.9	9
46	Synthesis of urea derivatives <i>via</i> reductive carbon dioxide fixation into contracted porphyrin analogues. Green Chemistry, 2017, 19, 5772-5776.	4.6	8
47	Structural Dynamics of RNA in the Presence of Choline Amino Acid Based Ionic Liquid: A Spectroscopic and Computational Outlook. ACS Central Science, 2021, 7, 1688-1697.	5.3	8
48	Molecularâ€Level Understanding of Groundâ€and Excitedâ€State Oï£¿Hâ‹…â‹…â‹…O Hydrogen Bonding Involving the Tyrosine Side Chain: A Combined Highâ€Resolution Laser Spectroscopy and Quantum Chemistry Study. ChemPhysChem, 2013, 14, 4165-4176.	1.0	7
49	A new synthesis of porphyrins <i>via</i> a putative <i>trans</i>-manganese(<scp>iv</scp>)-dihydroxide intermediate. Dalton Transactions, 2020, 49, 1424-1432.	1.6	6
50	Doubling FÃ¶rster Resonance Energy Transfer Efficiency in Proteins with Extrinsic Thioamide Probes: Implications for Thiomodified Nucleobases. Chemistry - A European Journal, 2021, 27, 4373-4383.	1.7	6
51	Hydrogen bond mediated conversion of benzenenitriles and arylacetonitriles to amides: an â€œon/in-waterâ€reaction strategy. Green Chemistry, 2022, 24, 4981-4990.	4.6	6
52	Hydrogen Bonding with Polonium. Physical Chemistry Chemical Physics, 0, , .	1.3	6
53	An isoquinoline as cation assisted ONâ€“OFFâ€“ON fluorescence switch with methionine and fluoride ion. Tetrahedron Letters, 2013, 54, 1067-1070.	0.7	5
54	Water exchange reaction of a manganese catalase mimic: oxygen-17 NMR relaxometry study on (aqua)manganese(iii) in a salen scaffold and its reactions in a mildly basic medium. RSC Advances, 2016, 6, 111739-111746.	1.7	5

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55	Ligand substitution and electron transfer reactions of trans-(diaqua)(salen)manganese(<scp>iii</scp>) with oxalate: an experimental and computational study. RSC Advances, 2014, 4, 58867-58879.	1.7	4
56	The Redox-Active Conopeptide Derived from the Venom Duct Transcriptome of <i>Conus lividus</i> Assists in the Oxidative Folding of Conotoxin. Biochemistry, 2021, 60, 1299-1311.	1.2	4
57	Investigation of the Nature of Intermolecular Interactions in Tetra(thiocyanato)corrolato-Ag(III) Complexes: Agostic or Hydrogen Bonded?. Inorganic Chemistry, 2022, , .	1.9	4
58	Electron transfer dissociation of synthetic and natural peptides containing lanthionine/methyllanthionine bridges. Rapid Communications in Mass Spectrometry, 2018, 32, 831-843.	0.7	2
59	Kinetics and mechanistic study of the reduction of $$hbox {Mn}^{mathrm{III}}$$ Mn III by oxalate in Salophen scaffold: relevance to oxalate oxidase. Journal of Chemical Sciences, 2018, 130, 1.	0.7	2
60	Lifetime measurements of SO2 below the Clementâ€™s A-band. Journal of Chemical Physics, 2008, 128, 204312.	1.2	1
61	Quantification of the electric field inside protein active sites and fullerenes. Physical Chemistry Chemical Physics, 2021, 23, 14755-14763.	1.3	1
62	Effect of pyridyl nitrogen on the conformational landscape of 7-azaserotonin: A computational study. Computational and Theoretical Chemistry, 2009, 902, 79-89.	1.5	0
63	Extraterrestrial Organic Molecules from [SiX]+ Ions: A Coupled Cluster Theory Inquest for Plausible Reaction Pathways. ACS Earth and Space Chemistry, 2021, 5, 2086-2093.	1.2	0