

# Sumit Kumar

## List of Publications by Year in descending order

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57  
papers

1,514  
citations

304743

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330143

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docs citations

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times ranked

1838  
citing authors

#	ARTICLE	IF	CITATIONS
1	A critical review of organic manure biorefinery models toward sustainable circular bioeconomy: Technological challenges, advancements, innovations, and future perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 111, 115-131.	16.4	177
2	Screening and isolation of halophilic bacteria producing industrially important enzymes. <i>Brazilian Journal of Microbiology</i> , 2012, 43, 1595-1603.	2.0	111
3	Thermostable enzymes: Adaptive strategies and tools for their biotechnological applications. <i>Bioresource Technology</i> , 2019, 278, 372-382.	9.6	79
4	Microbial mineralization of struvite: A promising process to overcome phosphate sequestering crisis. <i>Water Research</i> , 2014, 54, 33-43.	11.3	74
5	Observation of the adsorption and desorption of vibrationally excited molecules on a metal surface. <i>Nature Chemistry</i> , 2018, 10, 592-598.	13.6	70
6	Purification and characterization of maltotriose-forming $\alpha$ -amylase from moderately halophilic <i>Marinobacter</i> sp. EMB8. <i>Bioresource Technology</i> , 2012, 116, 247-251.	9.6	68
7	A bifunctional nanocarrier based on amphiphilic hyperbranched polyglycerol derivatives. <i>Journal of Materials Chemistry B</i> , 2013, 1, 3569.	5.8	50
8	$\pi$ -Hydrogen Bonding Wins over Conventional Hydrogen Bonding Interaction: A Jet-Cooled Study of Indole-Furan Heterodimer. <i>Journal of Physical Chemistry A</i> , 2012, 116, 1368-1374.	2.5	47
9	Competition between $n \rightarrow \pi^*$ and conventional hydrogen bonding ( $N \cdots H \cdots N$ ) interactions: an ab initio study of the complexes of 7-azaindole and fluorosubstituted pyridines. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 8819-8827.	2.8	43
10	Competition between Hydrogen Bonding and Dispersion Interactions in the Indole-Pyridine Dimer and (Indole) <sub>2</sub> -Pyridine Trimer Studied in a Supersonic Jet. <i>Journal of Physical Chemistry A</i> , 2011, 115, 7461-7472.	2.5	40
11	Screening and isolation of halophilic bacteria producing industrially important enzymes. <i>Brazilian Journal of Microbiology</i> , 2012, 43, 1595-603.	2.0	40
12	Noncovalent Dendronized Multiamphiphilic Polymers as Nanocarriers for Biomedical Applications. <i>Small</i> , 2013, 9, 894-904.	10.0	39
13	Antimicrobial resistance in biofilms: Exploring marine actinobacteria as a potential source of antibiotics and biofilm inhibitors. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2021, 30, e00613.	4.4	38
14	Polishing of Copper Alloy Using Double Disk Ultrasonic Assisted Magnetic Abrasive Polishing. <i>Materials and Manufacturing Processes</i> , 2013, 28, 200-206.	4.7	36
15	A simple downstream processing protocol for the recovery of lactic acid from the fermentation broth. <i>Bioresource Technology</i> , 2020, 318, 124260.	9.6	33
16	Biocompatibility of surface-modified gold nanoparticles towards red blood cells and haemoglobin. <i>Applied Surface Science</i> , 2020, 512, 145573.	6.1	33
17	Structure of Indole-Imidazole Heterodimer in a Supersonic Jet: A Gas Phase Study on the Interaction between the Aromatic Side Chains of Tryptophan and Histidine Residues in Proteins. <i>Journal of Physical Chemistry A</i> , 2012, 116, 11573-11580.	2.5	29
18	Effect of acceptor heteroatoms on $\pi$ -hydrogen bonding interactions: A study of indole-thiophene heterodimer in a supersonic jet. <i>Journal of Chemical Physics</i> , 2012, 137, 094309.	3.0	26

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19	Mimicking trimeric interactions in the aromatic side chains of the proteins: A gas phase study of indole- $\pi$ -(pyrrole) <sub>2</sub> heterotrimer. <i>Journal of Chemical Physics</i> , 2012, 136, 174302.	3.0	25
20	Halophiles as a source of polyextremophilic $\alpha$ -amylase for industrial applications. <i>AIMS Microbiology</i> , 2016, 2, 1-26.	2.2	25
21	Structure of 7-Azaindole-2-Fluoropyridine Dimer in a Supersonic Jet: Competition between N $\pi$ -H $\pi$ -N and N $\pi$ -H $\pi$ -F Interactions. <i>Journal of Physical Chemistry A</i> , 2011, 115, 10299-10308.	2.5	24
22	Influence of EDA- $\pi$ interactions in drug encapsulation using nanospheres. <i>Chemical Communications</i> , 2004, , 2689.	4.1	23
23	Isolation and complete genome sequence of Halorientalis hydrocarbonoclasticus sp. nov., a hydrocarbon-degrading haloarchaeon. <i>Extremophiles</i> , 2017, 21, 1081-1090.	2.3	23
24	Ionic Liquid-Modified Gold Nanoparticles for Enhancing Antimicrobial Activity and Thermal Stability of Enzymes. <i>ACS Applied Nano Materials</i> , 2021, 4, 3185-3196.	5.0	23
25	Observation of exclusively $\pi$ -stacked heterodimer of indole and hexafluorobenzene in the gas phase. <i>Journal of Chemical Physics</i> , 2013, 139, 104311.	3.0	22
26	Structure of saligenin: microwave, UV and IR spectroscopy studies in a supersonic jet combined with quantum chemistry calculations. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 17163.	2.8	20
27	Chloride Activated Halophilic $\alpha$ -Amylase from <i>Marinobacter</i> sp. EMB8: Production Optimization and Nanoimmobilization for Efficient Starch Hydrolysis. <i>Enzyme Research</i> , 2015, 2015, 1-9.	1.8	20
28	Vibrational Relaxation Lifetime of a Physisorbed Molecule at a Metal Surface. <i>Physical Review Letters</i> , 2019, 123, 156101.	7.8	20
29	Protein packaging in ionic liquid mixtures: an ecofriendly approach towards the improved stability of $\beta$ -lactoglobulin in cholinium-based mixed ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14811-14821.	2.8	20
30	How does cholinium cation surpass tetraethylammonium cation in amino acid-based ionic liquids for thermal and structural stability of serum albumins?. <i>International Journal of Biological Macromolecules</i> , 2020, 148, 615-626.	7.5	20
31	Biodegradation of 1,1,1-trichloro-2,2-bis(4-chlorophenyl) ethane (DDT) by using <i>Serratia marcescens</i> NCIM 2919. <i>Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes</i> , 2016, 51, 809-816.	1.5	19
32	"Naked-eye" colorimetric/fluorimetric detection of F <sup>-</sup> ions by biologically active 3-((1H-indol-3-yl)methyl)-4-hydroxy-2H-chromen-2-one derivatives. <i>RSC Advances</i> , 2016, 6, 108105-108112.	3.6	17
33	Halophilic Microorganisms as Sources of Novel Enzymes. , 2012, , 555-579.		15
34	Synthesis, structural, spectral, thermal and antimicrobial studies of palladium(II), platinum(II), ruthenium(III) and iridium(III) complexes derived from N,N,N-tetradentate macrocyclic ligand. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2011, 78, 1507-1514.	3.9	12
35	Biochemical Basis of Mercury Remediation and Bioaccumulation by <i>Enterobacter</i> sp. EMB21. <i>Applied Biochemistry and Biotechnology</i> , 2013, 169, 256-267.	2.9	12
36	Bread waste to lactic acid: Applicability of simultaneous saccharification and solid state fermentation. <i>Biocatalysis and Agricultural Biotechnology</i> , 2021, 32, 101934.	3.1	12

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37	Sustainable Management of Solid Waste. , 2019, , 79-99.		11
38	Insights into the metabolism pathway and functional genes of long-chain aliphatic alkane degradation in haloarchaea. <i>Extremophiles</i> , 2020, 24, 475-483.	2.3	11
39	Selective recognition of Ca <sup>2+</sup> ions using novel polymeric phenols. <i>Microchemical Journal</i> , 2008, 90, 89-92.	4.5	10
40	Synthesis of Biodegradable Amphiphilic Nanocarriers by Chemo-Enzymatic Transformations for the Solubilization of Hydrophobic Compounds. <i>International Journal of Artificial Organs</i> , 2011, 34, 84-92.	1.4	10
41	Structural elucidation and molecular characterization of <i>Marinobacter</i> sp. $\hat{\pm}$ -amylase. <i>Preparative Biochemistry and Biotechnology</i> , 2016, 46, 238-246.	1.9	10
42	How does the addition of shape distinct gold nanoparticles influence on the conformational transition of poly(N-isopropylacrylamide)? <i>Journal of Colloid and Interface Science</i> , 2021, 582, 478-487.	9.4	10
43	Lanthanide complexes derived from hexadentate macrocyclic ligand: Synthesis, spectroscopic and thermal investigation. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2010, 75, 835-840.	3.9	9
44	Metagenomic insights into the environmental adaptation and metabolism of <i>Candidatus</i> Haloplasmatales, one archaeal order thriving in saline lakes. <i>Environmental Microbiology</i> , 2022, 24, 2239-2258.	3.8	9
45	Interplay among Electrostatic, Dispersion, and Steric Interactions: Spectroscopy and Quantum Chemical Calculations of $\hat{\pm}$ -Hydrogen Bonded Complexes. <i>ChemPhysChem</i> , 2017, 18, 828-838.	2.1	7
46	Cellular adaptation responses in a halotolerant <i>Exiguobacterium</i> exhibiting organic solvent tolerance with simultaneous protease production. <i>Environmental Technology and Innovation</i> , 2021, 23, 101803.	6.1	7
47	Differential permeation of piroxicam-loaded PLGA micro/nanoparticles and their in vitro enhancement. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	1.9	6
48	Microbial Diversity of Saline Habitats: An Overview of Biotechnological Applications. <i>Soil Biology</i> , 2019, , 65-92.	0.8	6
49	<i>Aliidiomarina halalkaliphila</i> sp. nov., a haloalkaliphilic bacterium isolated from a soda lake in Inner Mongolia Autonomous Region, China. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2022, 72, .	1.7	5
50	The biocompatible validity of amino acid ionic liquid mediated gold nanoparticles for enhanced activity and structural stability of papain. <i>Dalton Transactions</i> , 2021, 50, 10455-10470.	3.3	4
51	Synthesis of NNNN Tetradentate Macrocyclic Ligand and its Pd(II), Pt(II), Ru(III), and Ir(III) Complexes: Spectroscopic, Thermal, and Antimicrobial Studies. <i>Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry</i> , 2010, 40, 940-946.	0.6	3
52	Development of the first gene expression system for <i>Salinicoccus</i> strains with potential application in bioremediation of hypersaline wastewaters. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 7249-7258.	3.6	3
53	Understanding the close encounter of heme proteins with carboxylated multiwalled carbon nanotubes: a case study of contradictory stability trend for hemoglobin and myoglobin. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 19740-19751.	2.8	3
54	Biophysical study on the phase transition behaviour of biocompatible thermoresponsive polymer influenced by tryptophan-based amino acid ionic liquids. <i>Polymer</i> , 2021, 228, 123871.	3.8	2

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55	Rhabdonatronobacter sediminivivens gen. nov., sp. nov. isolated from the sediment of Hutong Qagan Soda Lake. Archives of Microbiology, 2022, 204, 145.	2.2	2
56	Development of whole-cell catalyst system for sulfide biotreatment based on the engineered haloalkaliphilic bacterium. AMB Express, 2021, 11, 142.	3.0	1
57	Recovery and purification of industrial enzymes. , 2021, , 59-75.		0