

Ravindra Kumar

List of Publications by Year in descending order

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57
papers

4,092
citations

109264

35
h-index

143943

57
g-index

60
all docs

60
docs citations

60
times ranked

3677
citing authors

#	ARTICLE	IF	CITATIONS
1	LNA (Locked Nucleic Acids): Synthesis of the adenine, cytosine, guanine, 5-methylcytosine, thymine and uracil bicyclonucleoside monomers, oligomerisation, and unprecedented nucleic acid recognition. <i>Tetrahedron</i> , 1998, 54, 3607-3630.	1.0	960
2	Template-Directed Oligonucleotide Strand Ligation, Covalent Intramolecular DNA Circularization and Catenation Using Click Chemistry. <i>Journal of the American Chemical Society</i> , 2007, 129, 6859-6864.	6.6	248
3	The first analogues of LNA (Locked Nucleic Acids): Phosphorothioate-LNA and 2'-thio-LNA. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1998, 8, 2219-2222.	1.0	216
4	Structural Studies of LNA:RNA Duplexes by NMR: Conformations and Implications for RNase H Activity. <i>Chemistry - A European Journal</i> , 2000, 6, 2687-2695.	1.7	179
5	Physical and Chemical Characterization of Various Indian Agriculture Residues for Biofuels Production. <i>Energy & Fuels</i> , 2015, 29, 3111-3118.	2.5	164
6	Synthesis of 2'-Amino-LNA: A Novel Conformationally Restricted High-Affinity Oligonucleotide Analogue with a Handle. <i>Journal of Organic Chemistry</i> , 1998, 63, 10035-10039.	1.7	136
7	Inhibition of HIV-1 Tat-Dependent TransActivation by Steric Block Chimeric 2'-O-Methyl/LNA Oligoribonucleotides. <i>Biochemistry</i> , 2001, 40, 14645-14654.	1.2	132
8	Structural features of dilute acid, steam exploded, and alkali pretreated mustard stalk and their impact on enzymatic hydrolysis. <i>Carbohydrate Polymers</i> , 2015, 124, 265-273.	5.1	100
9	The Eight Stereoisomers of LNA (Locked Nucleic Acid): A Remarkable Family of Strong RNA Binding Molecules. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 1656-1659.	7.2	98
10	NMR Studies of Fully Modified Locked Nucleic Acid (LNA) Hybrids: A Solution Structure of an LNA:RNA Hybrid and Characterization of an LNA:DNA Hybrid. <i>Bioconjugate Chemistry</i> , 2004, 15, 449-457.	1.8	94
11	Life cycle assessment of rice straw utilization practices in India. <i>Bioresource Technology</i> , 2017, 228, 89-98.	4.8	90
12	Synthesis of Novel Bicyclo[2.2.1] Ribonucleosides: 2'-Amino- and 2'-Thio-LNA Monomeric Nucleosides. <i>Journal of Organic Chemistry</i> , 1998, 63, 6078-6079.	1.7	87
13	Global warming potential and energy analysis of second generation ethanol production from rice straw in India. <i>Applied Energy</i> , 2016, 184, 353-364.	5.1	80
14	Pilot scale dilute acid pretreatment of rice straw and fermentable sugar recovery at high solid loadings. <i>Bioresource Technology</i> , 2017, 224, 688-693.	4.8	72
15	Pilot scale pretreatment of wheat straw and comparative evaluation of commercial enzyme preparations for biomass saccharification and fermentation. <i>Biochemical Engineering Journal</i> , 2015, 102, 54-61.	1.8	69
16	Pilot scale study on steam explosion and mass balance for higher sugar recovery from rice straw. <i>Bioresource Technology</i> , 2015, 175, 350-357.	4.8	66
17	Ionic liquid pretreatment of biomass for sugars production: Driving factors with a plausible mechanism for higher enzymatic digestibility. <i>Carbohydrate Polymers</i> , 2016, 149, 369-381.	5.1	66
18	A Very Stable Cyclic DNA Miniduplex with Just Two Base Pairs. <i>ChemBioChem</i> , 2008, 9, 50-52.	1.3	61

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19	Triplex Addressability as a Basis for Functional DNA Nanostructures. Nano Letters, 2007, 7, 3832-3839.	4.5	60
20	Life cycle assessment of fuel ethanol from sugarcane molasses in northern and western India and its impact on Indian biofuel programme. Energy, 2015, 83, 307-315.	4.5	59
21	LNA (LOCKED NUCLEIC ACID) AND THE DIASTEREOISOMERIC Î±-L-LNA: CONFORMATIONAL TUNING AND HIGH-AFFINITY RECOGNITION OF DNA/RNA TARGETS. Nucleosides, Nucleotides and Nucleic Acids, 2001, 20, 389-396.	0.4	57
22	Characterization of Indian origin oil shale using advanced analytical techniques. Fuel, 2013, 113, 610-616.	3.4	56
23	Addressable high-information-density DNA nanostructures. Chemical Physics Letters, 2007, 440, 125-129.	1.2	55
24	Synergistic Enzyme Cocktail to Enhance Hydrolysis of Steam Exploded Wheat Straw at Pilot Scale. Frontiers in Energy Research, 2018, 6, .	1.2	50
25	Improved saccharification of pilot-scale acid pretreated wheat straw by exploiting the synergistic behavior of lignocellulose degrading enzymes. RSC Advances, 2015, 5, 71462-71471.	1.7	47
26	Synthesis of Abasic Locked Nucleic Acid and Twoseco-LNA Derivatives and Evaluation of Their Hybridization Properties Compared with Their More Flexible DNA Counterparts. Journal of Organic Chemistry, 2000, 65, 5167-5176.	1.7	44
27	Biodiesel surrogates: Achieving performance demands. Bioresource Technology, 2009, 100, 3022-3028.	4.8	44
28	2G waste lignin to fuel and high value-added chemicals: Approaches, challenges and future outlook for sustainable development. Chemosphere, 2021, 268, 129326.	4.2	44
29	Life cycle assessment and life cycle costing of conventional and modified dilute acid pretreatment for fuel ethanol production from rice straw in India. Journal of Cleaner Production, 2018, 197, 732-741.	4.6	43
30	High-affinity nucleic acid recognition using Î±-LNA TM (locked nucleic acid, Î²-D-ribo configured LNA), Î±-xylo-LNA TM (Î²-D-xylo configured LNA) or Î±-L-LNA TM (Î±-L-ribo configured LNA). Chemical Communications, 2019, 40, 2073-2074.	2.1	40
31	Estimation of Glycerides and Free Fatty Acid in Oils Extracted From Various Seeds from the Indian Region by NMR Spectroscopy. JAOCS, Journal of the American Oil Chemists' Society, 2011, 88, 1675-1685.	0.8	40
32	A comparison of the solution structures of an LNA:DNA duplex and the unmodified DNA:DNA duplex. Perkin Transactions II RSC, 2001, , 1224-1232.	1.1	39
33	Lna (Locked Nucleic Acid). Nucleosides & Nucleotides, 1999, 18, 1365-1370.	0.5	38
34	Improved Enzymatic Hydrolysis of Pilot Scale Pretreated Rice Straw at High Total Solids Loading. Frontiers in Energy Research, 2018, 6, .	1.2	38
35	Characterization of ionic liquid pretreated plant cell wall for improved enzymatic digestibility. Bioresource Technology, 2018, 249, 139-145.	4.8	37
36	Evaluation of recalcitrant features impacting enzymatic saccharification of diverse agricultural residues treated by steam explosion and dilute acid. RSC Advances, 2015, 5, 60754-60762.	1.7	33

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37	The cellulose structural transformation for higher enzymatic hydrolysis by ionic liquids and predicting their solvating capabilities. <i>Journal of Cleaner Production</i> , 2016, 113, 1005-1014.	4.6	33
38	Bench scale dilute acid pretreatment optimization for producing fermentable sugars from cotton stalk and physicochemical characterization. <i>Industrial Crops and Products</i> , 2016, 83, 104-112.	2.5	32
39	Next generation applications of lignin derived commodity products, their life cycle, techno-economics and societal analysis. <i>International Journal of Biological Macromolecules</i> , 2022, 197, 179-200.	3.6	29
40	Process optimization and mass balance studies of pilot scale steam explosion pretreatment of rice straw for higher sugar release. <i>Biomass and Bioenergy</i> , 2019, 130, 105390.	2.9	28
41	¹ H Nuclear Magnetic Resonance (NMR) Determination of the Iodine Value in Biodiesel Produced from Algal and Vegetable Oils. <i>Energy & Fuels</i> , 2012, 26, 7005-7008.	2.5	22
42	Controlled Release of Chol-TEG-DNA from Nano- and Micropatterned SU-8 Surfaces by a Spreading Lipid Film. <i>Nano Letters</i> , 2008, 8, 227-231.	4.5	20
43	The impact of particle size of cellulosic residue and solid loadings on enzymatic hydrolysis with a mass balance. <i>Fuel</i> , 2019, 245, 514-520.	3.4	20
44	Understanding the effects of low enzyme dosage and high solid loading on the enzyme inhibition and strategies to improve hydrolysis yields of pilot scale pretreated rice straw. <i>Fuel</i> , 2022, 327, 125114.	3.4	20
45	Platform for Controlled Supramolecular Nanoassembly. <i>Nano Letters</i> , 2009, 9, 2482-2486.	4.5	19
46	A homoisoflavanone from <i>Pterocarpus marsupium</i> . <i>Phytochemistry</i> , 1997, 44, 765-766.	1.4	17
47	Determination of Polyunsaturated Fatty Esters (PUFA) in Biodiesel by GC/GC-MS and ¹ H-NMR Techniques. <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2011, 88, 1285-1296.	0.8	16
48	Intensification of steam explosion and structural intricacies impacting sugar recovery. <i>Bioresource Technology</i> , 2017, 241, 692-700.	4.8	16
49	Hydrogen transportation in Delhi? Investigating the hydrogen-compressed natural gas (H-CNG) option. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 644-654.	3.8	13
50	Investigating <i>Jatropha</i> prunings as a feedstock for producing fermentable sugars and chemical treatment for process optimization. <i>Journal of Renewable and Sustainable Energy</i> , 2014, 6, 033118.	0.8	10
51	Structural Features of Dilute Acid Pretreated <i>Acacia mangium</i> and Impact of Sodium Sulfite Supplementation on Enzymatic Hydrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 4635-4644.	3.2	9
52	The Pretreatment Technologies for Deconstruction of Lignocellulosic Biomass. <i>Energy, Environment, and Sustainability</i> , 2018, , 395-421.	0.6	9
53	Response Factor Correction for Estimation of Ester Content in Biodiesel. <i>Chromatographia</i> , 2014, 77, 165-169.	0.7	8
54	Impact of Conditioning Prior to Dilute Acid Deconstruction of Biomass for the Production of Fermentable Sugars. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 4285-4292.	3.2	8

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55	Structural Studies of LNA:RNA Duplexes by NMR: Conformations and Implications for RNase H Activity. Chemistry - A European Journal, 2000, 6, 2687-2695.	1.7	7
56	Pretreatment process and its effect on enzymatic hydrolysis of biomass. , 2021, , 145-169.		6
57	Quality Control Aspects: A Simple Method for Estimation of Ethyl Alcohol in Oxy Diesel by NMR Spectroscopy. Petroleum Science and Technology, 2013, 31, 819-828.	0.7	1