

Saikat Dutta

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

114
papers

6,570
citations

42
h-index

80
g-index

123
ext. papers

7,421
ext. citations

7.5
avg, IF

6.52
L-index

#	Paper	IF	Citations
114	Chemocatalytic value addition of glucose without carbon-carbon bond cleavage/formation reactions: an overview.. <i>RSC Advances</i> , 2022 , 12, 4891-4912	3.7	3
113	Efficient Synthesis of 5-(Hydroxymethyl)furfural Esters from Polymeric Carbohydrates Using 5-(Chloromethyl)furfural as a Reactive Intermediate. <i>ACS Sustainable Chemistry and Engineering</i> , 2022 , 10, 5803-5809	8.3	3
112	Selective dehydration of 1-butanol to butenes over silica supported heteropolyacid catalysts: Mechanistic aspect. <i>Molecular Catalysis</i> , 2021 , 516, 111975	3.3	
111	Biocompatible nanoreactors of catalase and nanozymes for anticancer therapeutics. <i>Nano Select</i> , 2021 , 2, 1849	3.1	2
110	Recent advances in the preparation of levulinic esters from biomass-derived furanic and levulinic chemical platforms using heteropoly acid (HPA) catalysts. <i>Molecular Catalysis</i> , 2021 , 505, 111484	3.3	14
109	Recent Advances in the Value Addition of Biomass-Derived Levulinic Acid: A Review Focusing on its Chemical Reactivity Patterns. <i>ChemCatChem</i> , 2021 , 13, 3202-3222	5.2	17
108	Exoskeleton for Biofunctionality Protection of Enzymes and Proteins for Intracellular Delivery. <i>Advanced NanoBiomed Research</i> , 2021 , 1, 2000010	0	1
107	Recent progress in the development of biomass-derived nitrogen-doped porous carbon. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 3703-3728	13	69
106	Liquid fuel from waste tires: novel refining, advanced characterization and utilization in engines with ethyl levulinate as an additive.. <i>RSC Advances</i> , 2021 , 11, 9807-9826	3.7	2
105	Immunotherapy of tumors by tailored nano-zeolitic imidazolate framework protected biopharmaceuticals. <i>Biomaterials Science</i> , 2021 , 9, 6391-6402	7.4	0
104	Kinetics and regression analysis of phenanthrene adsorption on the nanocomposite of CaO and activated carbon: Characterization, regeneration, and mechanistic approach. <i>Journal of Molecular Liquids</i> , 2021 , 334, 116080	6	8
103	Nickel Nanoparticles Immobilized over Mesoporous SBA-15 for Efficient Carbonylative Coupling Reactions Utilizing CO: A Spotlight. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 40157-40171	9.5	5
102	Efficient and Scalable Production of Isoidide from Isosorbide. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 11565-11570	8.3	2
101	Implication of Wood-Derived Hierarchical Carbon Nanotubes for Micronutrient Delivery and Crop Biofortification. <i>ACS Omega</i> , 2021 , 6, 23654-23665	3.9	1
100	Energy Densification of Biomass-Derived Furfurals to Furanic Biofuels by Catalytic Hydrogenation and Hydrodeoxygenation Reactions. <i>Sustainable Chemistry</i> , 2021 , 2, 521-549	3.6	2
99	Catalytic Transformation of Biomass-Derived Furfurals to Cyclopentanones and Their Derivatives: A Review.. <i>ACS Omega</i> , 2021 , 6, 35145-35172	3.9	3
98	Oxidation and Reduction of Biomass-Derived 5-(Hydroxymethyl)furfural and Levulinic Acid by Nanocatalysis. <i>ACS Symposium Series</i> , 2020 , 239-259	0.4	2

97	[Et ₃ NH][HSO ₄] as an efficient and inexpensive ionic liquid catalyst for the scalable preparation of biorenewable chemicals. <i>Biomass Conversion and Biorefinery</i> , 2020 , 1	2.3	1
96	Preparation of alkyl levulinates from biomass-derived 5-(halomethyl)furfural (X = Cl, Br), furfuryl alcohol, and angelica lactone using silica-supported perchloric acid as a heterogeneous acid catalyst. <i>Biomass Conversion and Biorefinery</i> , 2020 , 10, 849-856	2.3	6
95	Catalytic reduction of CO ₂ into fuels and fine chemicals. <i>Green Chemistry</i> , 2020 , 22, 4002-4033	10	64
94	Hydro(deoxygenation) Reaction Network of Lignocellulosic Oxygenates. <i>ChemSusChem</i> , 2020 , 13, 2894-2915	2.3	8
93	Lytic Polysaccharide Monooxygenases-Driven Degradation of Biorefinery Lignocellulose. <i>Clean Energy Production Technologies</i> , 2020 , 297-333	0.8	
92	Upgrading of coconut shell-derived pyrolytic bio-oil by thermal and catalytic deoxygenation. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2020 , 1-10	1.6	
91	Production of 5-(formyloxymethyl)furfural from biomass-derived sugars using mixed acid catalysts and upgrading into value-added chemicals. <i>Carbohydrate Research</i> , 2020 , 497, 108140	2.9	8
90	Catalytic synthesis of renewable p-xylene from biomass-derived 2,5-dimethylfuran: a mini review. <i>Biomass Conversion and Biorefinery</i> , 2020 , 1	2.3	8
89	Total Syntheses Supramolecular Style: Solid-State Construction of [2.2]Cyclophanes with Modular Control of Stereochemistry. <i>Crystal Growth and Design</i> , 2020 , 20, 2584-2589	3.5	7
88	Hydrochloric acid-catalyzed coproduction of furfural and 5-(chloromethyl)furfural assisted by a phase transfer catalyst. <i>Carbohydrate Research</i> , 2020 , 496, 108105	2.9	2
87	Chemical and Enzymatic Routes for Lignocellulosic Bioproducts via Carbon Extension and Deoxygenation. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 13555-13575	8.3	
86	Synthesis of highly-branched alkanes for renewable gasoline. <i>Fuel Processing Technology</i> , 2020 , 197, 106192	1.2	14
85	High-Yielding Synthesis of 5-(alkoxymethyl)furfurals from Biomass-Derived 5-(halomethyl)furfural (X=Cl, Br). <i>ChemistrySelect</i> , 2019 , 4, 5540-5543	1.8	6
84	Inhibition of Na/K- and Ca-ATPase activities by phosphotetradecavanadate. <i>Journal of Inorganic Biochemistry</i> , 2019 , 197, 110700	4.2	23
83	Characterization and upgradation of crude tire pyrolysis oil (CTPO) obtained from a rotating autoclave reactor. <i>Fuel</i> , 2019 , 250, 339-351	7.1	23
82	Fabrication of Nanoporous Carbon Materials with Hard- and Soft-Templating Approaches: A Review. <i>Journal of Nanoscience and Nanotechnology</i> , 2019 , 19, 3673-3685	1.3	39
81	Efficient Preparation of Alkyl Benzoates by Heteropolyacid-Catalysed Esterification of Benzoic Acid under Solvent-Free Condition. <i>ChemistrySelect</i> , 2019 , 4, 9119-9123	1.8	0
80	Nanoarchitectonics of Biofunctionalized Metal-Organic Frameworks with Biological Macromolecules and Living Cells. <i>Small Methods</i> , 2019 , 3, 1900213	12.8	39

79	Phase Transfer Catalyst Assisted One-Pot Synthesis of 5-(Chloromethyl)furfural from Biomass-Derived Carbohydrates in a Biphasic Batch Reactor. <i>ChemistrySelect</i> , 2019 , 4, 7502-7506	1.8	6
78	Efficient and Scalable Production of Alkyl Levulinates from Cellulose-Derived Levulinic Acid Using Heteropolyacid Catalysts. <i>ChemistrySelect</i> , 2019 , 4, 2501-2504	1.8	8
77	Catalytic Conversion of Biomass-Derived Carbohydrates into Levulinic Acid Assisted by a Cationic Surface Active Agent. <i>ChemistrySelect</i> , 2019 , 4, 13021-13024	1.8	
76	Improved Graphene-Oxide-Derived Carbon Sponge for Effective Hydrocarbon Absorption and C–C Coupling Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 11793-11800	8.3	5
75	Analytical Understanding of the Materials Design with Well-Described Shrinkages on Multiscale. <i>Chemistry - A European Journal</i> , 2018 , 24, 6886-6904	4.8	10
74	Curved Fragmented Graphenic Hierarchical Architectures for Extraordinary Charging Capacities. <i>Small</i> , 2018 , 14, e1702054	11	8
73	3D network of cellulose-based energy storage devices and related emerging applications. <i>Materials Horizons</i> , 2017 , 4, 522-545	14.4	208
72	Solventless C–C Coupling of Low Carbon Furanics to High Carbon Fuel Precursors Using an Improved Graphene Oxide Carbocatalyst. <i>ACS Catalysis</i> , 2017 , 7, 3905-3915	13.1	51
71	Hydrogen-Economic Synthesis of Gasoline-like Hydrocarbons by Catalytic Hydrodecarboxylation of the Biomass-derived Angelica Lactone Dimer. <i>ChemCatChem</i> , 2017 , 9, 2622-2626	5.2	19
70	Catalytic Hydrodeoxygenation of High Carbon Furylmethanes to Renewable Jet-fuel Ranged Alkanes over a Rhenium-Modified Iridium Catalyst. <i>ChemSusChem</i> , 2017 , 10, 3225-3234	8.3	44
69	Hydrodeoxygenation of Furylmethane Oxygenates to Jet and Diesel Range Fuels: Probing the Reaction Network with Supported Palladium Catalyst and Hafnium Triflate Promoter. <i>ACS Catalysis</i> , 2017 , 7, 5491-5499	13.1	30
68	Strategies for Improving the Functionality of Zeolitic Imidazolate Frameworks: Tailoring Nanoarchitectures for Functional Applications. <i>Advanced Materials</i> , 2017 , 29, 1700213	24	270
67	Catalytic Hydrodeoxygenation of High Carbon Furylmethanes to Renewable Jet-fuel Ranged Alkanes over a Rhenium-Modified Iridium Catalyst. <i>ChemSusChem</i> , 2017 , 10, 3164-3164	8.3	
66	Critical design of heterogeneous catalysts for biomass valorization: current thrust and emerging prospects. <i>Catalysis Science and Technology</i> , 2016 , 6, 7364-7385	5.5	81
65	ZIF-8 Derived, Nitrogen-Doped Porous Electrodes of Carbon Polyhedron Particles for High-Performance Electrosorption of Salt Ions. <i>Scientific Reports</i> , 2016 , 6, 28847	4.9	48
64	An unique approach of applying magnetic nanoparticles attached commercial lipase acrylic resin for biodiesel production. <i>Catalysis Today</i> , 2016 , 278, 330-334	5.3	21
63	Cellulose Framework Directed Construction of Hierarchically Porous Carbons Offering High-Performance Capacitive Deionization of Brackish Water. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 1885-1893	8.3	80
62	Alkyl Elimination: Fundamental Principles and Some Applications. <i>Chemical Reviews</i> , 2016 , 116, 8105-4568.1		58

61	Efficient, metal-free production of succinic acid by oxidation of biomass-derived levulinic acid with hydrogen peroxide. <i>Green Chemistry</i> , 2015 , 17, 2335-2338	10	70
60	Efficient, chemical-catalytic approach to the production of 3-hydroxypropanoic acid by oxidation of biomass-derived levulinic acid with hydrogen peroxide. <i>ChemSusChem</i> , 2015 , 8, 1167-9	8.3	23
59	Lignin Deconstruction 2015 , 125-155		1
58	Synthesis of Mixed-Ligand Zeolitic Imidazolate Framework (ZIF-8-90) for CO ₂ Adsorption. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2015 , 25, 251-258	3.2	30
57	Imparting functionality to biocatalysts via embedding enzymes into nanoporous materials by a de novo approach: size-selective sheltering of catalase in metal-organic framework microcrystals. <i>Journal of the American Chemical Society</i> , 2015 , 137, 4276-9	16.4	558
56	Predictable Shrinkage during the Precise Design of Porous Materials and Nanomaterials. <i>Chemistry of Materials</i> , 2015 , 27, 6918-6928	9.6	36
55	Synthesis of magnetic mesoporous titania colloidal crystals through evaporation induced self-assembly in emulsion as effective and recyclable photocatalysts. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 27653-7	3.6	19
54	Functionalized Fe ₃ O ₄ @silica core-shell nanoparticles as microalgae harvester and catalyst for biodiesel production. <i>ChemSusChem</i> , 2015 , 8, 789-94	8.3	83
53	Production of 5-(chloromethyl)furan-2-carbonyl chloride and furan-2,5-dicarbonyl chloride from biomass-derived 5-(chloromethyl)furfural (CMF). <i>Green Chemistry</i> , 2015 , 17, 3737-3739	10	27
52	Upgrading Furfurals to Drop-in Biofuels: An Overview. <i>ACS Sustainable Chemistry and Engineering</i> , 2015 , 3, 1263-1277	8.3	198
51	Mesoporous Europium-Doped Titania Nanoparticles (Eu-MTNs) for Luminescence-Based Intracellular Bio-Imaging. <i>Journal of Nanoscience and Nanotechnology</i> , 2015 , 15, 9802-6	1.3	4
50	Hydrodeoxygenation of the angelica lactone dimer, a cellulose-based feedstock: simple, high-yield synthesis of branched C ₇ -C ₁₀ gasoline-like hydrocarbons. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 1854-7	16.4	155
49	Promises in direct conversion of cellulose and lignocellulosic biomass to chemicals and fuels: Combined solvent/nanocatalysis approach for biorefinary. <i>Biomass and Bioenergy</i> , 2014 , 62, 182-197	5.3	66
48	Synthesis of the insecticide prothrin and its analogues from biomass-derived 5-(chloromethyl)furfural. <i>Journal of Agricultural and Food Chemistry</i> , 2014 , 62, 476-80	5.7	33
47	Co-Crystals of a Salicylideneaniline: Photochromism Involving Planar Dihedral Angles. <i>Chemistry of Materials</i> , 2014 , 26, 3042-3044	9.6	47
46	Chemical-catalytic approaches to the production of furfurals and levulinates from biomass. <i>Topics in Current Chemistry</i> , 2014 , 353, 41-83		18
45	Emerging strategies for breaking the 3D amorphous network of lignin. <i>Catalysis Science and Technology</i> , 2014 , 4, 3785-3799	5.5	84
44	Hierarchically porous carbon derived from polymers and biomass: effect of interconnected pores on energy applications. <i>Energy and Environmental Science</i> , 2014 , 7, 3574-3592	35.4	1021

43	Enzymatic breakdown of biomass: enzyme active sites, immobilization, and biofuel production. <i>Green Chemistry</i> , 2014 , 16, 4615-4626	10	87
42	Hydrodeoxygenation of the Angelica Lactone Dimer, a Cellulose-Based Feedstock: Simple, High-Yield Synthesis of Branched C7-C10 Gasoline-like Hydrocarbons. <i>Angewandte Chemie</i> , 2014 , 126, 1885-1888	3.6	33
41	Effect of carboxylic acid of periodic mesoporous organosilicas on the fructose-to-5-hydroxymethylfurfural conversion in dimethylsulfoxide systems. <i>APL Materials</i> , 2014 , 2, 113314	5.7	4
40	Carboxylic acid-grafted mesoporous material and its high catalytic activity in one-pot three-component coupling reaction. <i>APL Materials</i> , 2014 , 2, 113307	5.7	4
39	Novel pathways to 2,5-dimethylfuran via biomass-derived 5-(chloromethyl)furfural. <i>ChemSusChem</i> , 2014 , 7, 3028-30	8.3	40
38	Integrated, cascading enzyme-/chemocatalytic cellulose conversion using catalysts based on mesoporous silica nanoparticles. <i>ChemSusChem</i> , 2014 , 7, 3241-6	8.3	99
37	Integrated, Cascading Enzyme-/Chemocatalytic Cellulose Conversion using Catalysts based on Mesoporous Silica Nanoparticles. <i>ChemSusChem</i> , 2014 , 7, 3181-3181	8.3	4
36	Recent Advancements of Replacing Existing Aniline Production Process With Environmentally Friendly One-Pot Process: An Overview. <i>Critical Reviews in Environmental Science and Technology</i> , 2013 , 43, 84-120	11.1	12
35	Continuous mesoporous titania nanocrystals: their growth in confined space and scope for application. <i>ChemSusChem</i> , 2013 , 6, 2039-41	8.3	5
34	Single-crystal-to-single-crystal direct cross-linking and photopolymerisation of a discrete Ag(I) complex to give a 1D polycyclobutane coordination polymer. <i>Chemical Communications</i> , 2013 , 49, 1064-6 ^{5.8}	5.8	44
33	Advances in biomass transformation to 5-hydroxymethylfurfural and mechanistic aspects. <i>Biomass and Bioenergy</i> , 2013 , 55, 355-369	5.3	95
32	Direct conversion of cellulose and lignocellulosic biomass into chemicals and biofuel with metal chloride catalysts. <i>Journal of Catalysis</i> , 2012 , 288, 8-15	7.3	199
31	Catalytic materials that improve selectivity of biomass conversions. <i>RSC Advances</i> , 2012 , 2, 12575	3.7	60
30	Deoxygenation of biomass-derived feedstocks: hurdles and opportunities. <i>ChemSusChem</i> , 2012 , 5, 2125-8 ³	8.3	66
29	Self-assembled TiO ₂ nanospheres by using a biopolymer as a template and its optoelectronic application. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 1560-4	9.5	66
28	Preparation and Characterization of Aluminum Alkoxides Coordinated on salen-Type Ligands: Highly Stereoselective Ring-Opening Polymerization of rac-Lactide. <i>Organometallics</i> , 2012 , 31, 2016-2025 ^{3.8}	3.8	161
27	Biopolymer templated porous TiO ₂ : An efficient catalyst for the conversion of unutilized sugars derived from hemicellulose. <i>Applied Catalysis A: General</i> , 2012 , 435-436, 197-203	5.1	41
26	Aerobic oxidation of 5-hydroxymethylfurfural with homogeneous and nanoparticulate catalysts. <i>Catalysis Science and Technology</i> , 2012 , 2, 79-81	5.5	116

25	Solid-acid and ionic-liquid catalyzed one-pot transformation of biorenewable substrates into a platform chemical and a promising biofuel. <i>RSC Advances</i> , 2012 , 2, 6890	3.7	74
24	Advances in conversion of hemicellulosic biomass to furfural and upgrading to biofuels. <i>Catalysis Science and Technology</i> , 2012 , 2, 2025	5.5	334
23	Hierarchically porous titanium phosphate nanoparticles: an efficient solid acid catalyst for microwave assisted conversion of biomass and carbohydrates into 5-hydroxymethylfurfural. <i>Journal of Materials Chemistry</i> , 2012 , 22, 14094		81
22	A Brief Summary of the Synthesis of Polyester Building-Block Chemicals and Biofuels from 5-Hydroxymethylfurfural. <i>ChemPlusChem</i> , 2012 , 77, 259-272	2.8	132
21	One-pot conversions of lignocellulosic and algal biomass into liquid fuels. <i>ChemSusChem</i> , 2012 , 5, 1826-1833	3.3	123
20	Synthesis of the natural herbicide β -aminolevulinic acid from cellulose-derived 5-(chloromethyl)furfural. <i>Green Chemistry</i> , 2011 , 13, 40-41	1.0	56
19	Microwave assisted conversion of carbohydrates and biopolymers to 5-hydroxymethylfurfural with aluminium chloride catalyst in water. <i>Green Chemistry</i> , 2011 , 13, 2859	1.0	201
18	Resorcinol-templated synthesis of a cofacial terpyridine in crystalline β -stacked columns. <i>Organic Letters</i> , 2011 , 13, 2260-2	6.2	18
17	Phosphine supported metal-dihydrogen complexes: Elongation of H-H bond to reversible release of H ₂ . <i>Comptes Rendus Chimie</i> , 2011 , 14, 1029-1053	2.7	8
16	Synthesis of ranitidine (Zantac) from cellulose-derived 5-(chloromethyl)furfural. <i>Green Chemistry</i> , 2011 , 13, 3101	1.0	47
15	Self-assembly of mesoporous TiO ₂ nanospheres via aspartic acid templating pathway and its catalytic application for 5-hydroxymethyl-furfural synthesis. <i>Journal of Materials Chemistry</i> , 2011 , 21, 17505		81
14	Microwave assisted rapid conversion of carbohydrates into 5-hydroxymethylfurfural catalyzed by mesoporous TiO ₂ nanoparticles. <i>Applied Catalysis A: General</i> , 2011 , 409-410, 133-139	5.1	109
13	Recent Developments in Metal-Catalyzed Ring-Opening Polymerization of Lactides and Glycolides: Preparation of Polylactides, Polyglycolide, and Poly(lactide-co-glycolide). <i>Advances in Polymer Science</i> , 2011 , 219-283	1.3	51
12	Synthesis and structural studies of lithium and sodium complexes with OOO-tridentate bis(phenolate) ligands: effective catalysts for the ring-opening polymerization of L-lactide. <i>Inorganic Chemistry</i> , 2010 , 49, 9416-25	5.1	70
11	Ring-opening polymerization by lithium catalysts: an overview. <i>Chemical Society Reviews</i> , 2010 , 39, 1724-1735	4.6	181
10	Metal-Organic Frameworks with Photochemical Building Units 2010 , 301-312		1
9	Influence of the electronics of the phosphine ligands on the H-H bond elongation in dihydrogen complexes. <i>Inorganic Chemistry</i> , 2008 , 47, 548-57	5.1	17
8	Snapshots of the Breaking of the H-H bond in the oxidative addition of H ₂ to a metal centre. <i>Journal of Chemical Sciences</i> , 2006 , 118, 579-582	1.8	1

7	16-electron elongated dihydrogen complex stabilized by agostic interaction. <i>Inorganic Chemistry</i> , 2006 , 45, 7047-9	5.1	7
6	Dynamics of a cis-dihydrogen/hydride complex of iridium. <i>Inorganic Chemistry</i> , 2005 , 44, 6203-10	5.1	19
5	A roadmap to UV-protective natural resources: classification, characteristics, and applications. <i>Materials Chemistry Frontiers</i> ,	7.8	4
4	Recent advances in the production and value addition of selected hydrophobic analogs of biomass-derived 5-(hydroxymethyl)furfural. <i>Biomass Conversion and Biorefinery</i> ,1	2.3	7
3	Valorization of biomass-derived furfurals: reactivity patterns, synthetic strategies, and applications. <i>Biomass Conversion and Biorefinery</i> ,1	2.3	7
2	Selective oxidation of biomass-derived furfural to 2(5H)-furanone using trifluoroacetic acid as the catalyst and hydrogen peroxide as a green oxidant. <i>Biomass Conversion and Biorefinery</i> ,1	2.3	2
1	Dehydrogenase-Functionalized Interfaced Materials in Electroenzymatic and Photoelectroenzymatic CO ₂ Reduction. <i>ACS Sustainable Chemistry and Engineering</i> ,	8.3	1