Basudeb Saha

List of Publications by Year
in descending order

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74 papers	5,829 citations	87888 38 h-index	82547 72 g-index
79 all docs	79 docs citations	79 times ranked	5820 citing authors

#	Article	IF	Citations
1	Advances in 5-hydroxymethylfurfural production from biomass in biphasic solvents. Green Chemistry, 2014, 16, 24-38.	9.0	470
2	Advances in conversion of hemicellulosic biomass to furfural and upgrading to biofuels. Catalysis Science and Technology, 2012, 2, 2025.	4.1	372
3	A synergistic biorefinery based on catalytic conversion of lignin prior to cellulose starting from lignocellulosic biomass. Green Chemistry, 2015, 17, 1492-1499.	9.0	370
4	Hydrodeoxygenation processes: Advances on catalytic transformations of biomass-derived platform chemicals into hydrocarbon fuels. Bioresource Technology, 2015, 178, 108-118.	9.6	285
5	Upgrading Furfurals to Drop-in Biofuels: An Overview. ACS Sustainable Chemistry and Engineering, 2015, 3, 1263-1277.	6.7	259
6	Direct conversion of cellulose and lignocellulosic biomass into chemicals and biofuel with metal chloride catalysts. Journal of Catalysis, 2012, 288, 8-15.	6.2	232
7	Microwave assisted conversion of carbohydrates and biopolymers to 5-hydroxymethylfurfural with aluminium chloride catalyst in water. Green Chemistry, 2011, 13, 2859.	9.0	229
8	Porphyrin-based porous organic polymer-supported iron(III) catalyst for efficient aerobic oxidation of 5-hydroxymethyl-furfural into 2,5-furandicarboxylic acid. Journal of Catalysis, 2013, 299, 316-320.	6.2	179
9	Zincâ€Assisted Hydrodeoxygenation of Biomassâ€Derived 5â€Hydroxymethylfurfural to 2,5â€Dimethylfuran. ChemSusChem, 2014, 7, 3095-3101.	6.8	152
10	A Brief Summary of the Synthesis of Polyester Buildingâ€Block Chemicals and Biofuels from 5â€Hydroxymethylfurfural. ChemPlusChem, 2012, 77, 259-272.	2.8	150
11	Oneâ€Pot Conversions of Lignocellulosic and Algal Biomass into Liquid Fuels. ChemSusChem, 2012, 5, 1826-1833.	6.8	141
12	Aerobic oxidation of 5-hydroxylmethylfurfural with homogeneous and nanoparticulate catalysts. Catalysis Science and Technology, 2012, 2, 79-81.	4.1	136
13	Lignin depolymerization over Ni/C catalyst in methanol, a continuation: effect of substrate and catalyst loading. Catalysis Science and Technology, 2015, 5, 3242-3245.	4.1	129
14	Structural analysis of humins formed in the BrÃ¸nsted acid catalyzed dehydration of fructose. Green Chemistry, 2018, 20, 997-1006.	9.0	123
15	Towards high-yield lignin monomer production. Green Chemistry, 2017, 19, 3752-3758.	9.0	121
16	Microwave assisted rapid conversion of carbohydrates into 5-hydroxymethylfurfural catalyzed by mesoporous TiO2 nanoparticles. Applied Catalysis A: General, 2011, 409-410, 133-139.	4.3	118
17	From Tree to Tape: Direct Synthesis of Pressure Sensitive Adhesives from Depolymerized Raw Lignocellulosic Biomass. ACS Central Science, 2018, 4, 701-708.	11.3	116
18	Critical design of heterogeneous catalysts for biomass valorization: current thrust and emerging prospects. Catalysis Science and Technology, 2016, 6, 7364-7385.	4.1	111

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19	Efficient Solid Acid Catalyst Containing Lewis and BrÃ¸nsted Acid Sites for the Production of Furfurals. ChemSusChem, 2014, 7, 2342-2350.	6.8	106
20	Direct synthesis of dimethyl ether from syngas over Cu-based catalysts: Enhanced selectivity in the presence of MgO. Journal of Catalysis, 2016, 334, 89-101.	6.2	102
21	Current Technologies, Economics, and Perspectives for 2,5â€Dimethylfuran Production from Biomassâ€Derived Intermediates. ChemSusChem, 2015, 8, 1133-1142.	6.8	101
22	Pt catalysts for efficient aerobic oxidation of glucose to glucaric acid in water. Green Chemistry, 2016, 18, 3815-3822.	9.0	100
23	Emerging strategies for breaking the 3D amorphous network of lignin. Catalysis Science and Technology, 2014, 4, 3785-3799.	4.1	96
24	Hierarchically porous titanium phosphate nanoparticles: an efficient solid acid catalyst for microwave assisted conversion of biomass and carbohydrates into 5-hydroxymethylfurfural. Journal of Materials Chemistry, 2012, 22, 14094.	6.7	93
25	Self-assembly of mesoporous TiO2 nanospheres via aspartic acid templating pathway and its catalytic application for 5-hydroxymethyl-furfural synthesis. Journal of Materials Chemistry, 2011, 21, 17505.	6.7	89
26	Selective Câ€“C Bond Cleavage of Methylene-Linked Lignin Models and Kraft Lignin. ACS Catalysis, 2018, 8, 6507-6512.	11.2	86
27	Solid-acid and ionic-liquid catalyzed one-pot transformation of biorenewable substrates into a platform chemical and a promising biofuel. RSC Advances, 2012, 2, 6890.	3.6	82
28	Catalytic Upgrading of 5â€Hydroxymethylfurfural to Dropâ€in Biofuels by Solid Base and Bifunctional Metalâ€“Acid Catalysts. ChemSusChem, 2015, 8, 4022-4029.	6.8	79
29	Solventless Câ€“C Coupling of Low Carbon Furanics to High Carbon Fuel Precursors Using an Improved Graphene Oxide Carbocatalyst. ACS Catalysis, 2017, 7, 3905-3915.	11.2	72
30	Selective Hydrodeoxygenation of Vegetable Oils and Waste Cooking Oils to Green Diesel Using a Silicaâ€Supported Irâ€“ReO_{<i>x</i>} Bimetallic Catalyst. ChemSusChem, 2018, 11, 1446-1454.	6.8	66
31	Titanium hydrogenphosphate: An efficient dual acidic catalyst for 5-hydroxymethylfurfural (HMF) production. Applied Catalysis A: General, 2014, 486, 42-48.	4.3	64
32	Catalytic Hydrodeoxygenation of High Carbon Furylmethanes to Renewable Jetâ€fuel Ranged Alkanes over a Rheniumâ€Modified Iridium Catalyst. ChemSusChem, 2017, 10, 3225-3234.	6.8	54
33	Acid functionalized ionic liquid catalyzed transformation of non-food biomass into platform chemical and fuel additive. Industrial Crops and Products, 2018, 123, 629-637.	5.2	49
34	Introducing nanocrystalline CeO2 as heterogeneous environmental friendly catalyst for the aerobic oxidation of para-xylene to terephthalic acid in water. Journal of Materials Chemistry A, 2013, 1, 7091.	10.3	46
35	Renewable lubricants with tailored molecular architecture. Science Advances, 2019, 5, eaav5487.	10.3	44
36	One-pot integrated processing of biopolymers to furfurals in molten salt hydrate: understanding synergy in acidity. Green Chemistry, 2017, 19, 3888-3898.	9.0	43

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37	Ultrafast flow chemistry for the acid-catalyzed conversion of fructose. Energy and Environmental Science, 2019, 12, 2463-2475.	30.8	42
38	Development of 6-amyl-Î±-pyrone as a potential biomass-derived platform molecule. Green Chemistry, 2016, 18, 6431-6435.	9.0	41
39	Hydrodeoxygenation of Furylmethane Oxygenates to Jet and Diesel Range Fuels: Probing the Reaction Network with Supported Palladium Catalyst and Hafnium Triflate Promoter. ACS Catalysis, 2017, 7, 5491-5499.	11.2	40
40	Molybdenum Oxide-Modified Iridium Catalysts for Selective Production of Renewable Oils for Jet and Diesel Fuels and Lubricants. ACS Catalysis, 2019, 9, 7679-7689.	11.2	39
41	In situ silver nanoparticles synthesis in agarose film supported on filter paper and its application as highly efficient SERS test stripes. Forensic Science International, 2014, 237, e42-e46.	2.2	35
42	Process Intensification for Cellulosic Biorefineries. ChemSusChem, 2017, 10, 2566-2572.	6.8	32
43	Efficient utilization of potash alum as a greenÂcatalyst for production of furfural, 5-hydroxymethylfurfural and levulinic acid from mono-sugars. RSC Advances, 2017, 7, 41973-41979.	3.6	31
44	Experiments and computations of microfluidic liquidâ€“liquid flow patterns. Reaction Chemistry and Engineering, 2020, 5, 39-50.	3.7	31
45	Techno-economic and life cycle analysis of different types of hydrolysis process for the production of p-Xylene. Computers and Chemical Engineering, 2019, 121, 685-695.	3.8	29
46	One-step lignocellulose depolymerization and saccharification to high sugar yield and less condensed isolated lignin. Green Chemistry, 2021, 23, 1200-1211.	9.0	28
47	Direct conversion of syngas to DME: synthesis of new Cu-based hybrid catalysts using Fehlingâ€™s solution, elimination of the calcination step. Journal of Materials Chemistry A, 2017, 5, 2649-2663.	10.3	27
48	Catalytic production of renewable lubricant base oils from bio-based 2-alkylfurans and enals. Green Chemistry, 2019, 21, 3606-3614.	9.0	27
49	Dual acidic titania carbocatalyst for cascade reaction of sugar to etherified fuel additives. Catalysis Communications, 2018, 110, 46-50.	3.3	26
50	Branched Bioâ€Lubricant Base Oil Production through Aldol Condensation. ChemSusChem, 2019, 12, 4780-4785.	6.8	26
51	Biomassâ€based chemical production using technoâ€economic and life cycle analysis. AIChE Journal, 2019, 65, e16660.	3.6	26
52	Advances in catalytic production processes of biomass-derived vinyl monomers. Catalysis Science and Technology, 2020, 10, 5411-5437.	4.1	25
53	A Review of Biorefinery Separations for Bioproduct Production via Thermocatalytic Processing. Annual Review of Chemical and Biomolecular Engineering, 2017, 8, 115-137.	6.8	24
54	Synergistic Effect of Zn in a Bimetallic PdZn Catalyst: Elucidating the Role of Undercoordinated Sites in the Hydrodeoxygenation Reactions of Biorenewable Platforms. Industrial & Engineering Chemistry Research, 2019, 58, 16153-16163.	3.7	22

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55	Liquidâ€“Liquid Microfluidic Flows for Ultrafast 5-Hydroxymethyl Furfural Extraction. Industrial & Engineering Chemistry Research, 2021, 60, 3723-3735.	3.7	20
56	Recent Advancements of Replacing Existing Aniline Production Process With Environmentally Friendly One-Pot Process: An Overview. Critical Reviews in Environmental Science and Technology, 2013, 43, 84-120.	12.8	19
57	Growth kinetics of humins studied <i>via</i> X-ray scattering. Green Chemistry, 2020, 22, 2301-2309.	9.0	19
58	Titania nanoparticles embedded in functionalized carbon for the aqueous phase oxidation of 5-hydroxymethylfurfural. Molecular Catalysis, 2017, 435, 182-188.	2.0	17
59	Selective hydrodeoxygenation of tartaric acid to succinic acid. Catalysis Science and Technology, 2017, 7, 4944-4954.	4.1	16
60	Aerobic Oxidation of Xylose to Xylaric Acid in Water over Pt Catalysts. ChemSusChem, 2018, 11, 2124-2129.	6.8	16
61	Kinetic Studies of Acid Hydrolysis of Food Waste-Derived Saccharides. Industrial & Engineering Chemistry Research, 2018, 57, 17365-17374.	3.7	13
62	Catalytic Hydrotreatment of Humins to Bioâ€Oil in Methanol over Supported Metal Catalysts. ChemSusChem, 2018, 11, 3609-3617.	6.8	13
63	Fast microflow kinetics and acid catalyst deactivation in glucose conversion to 5-hydroxymethylfurfural. Reaction Chemistry and Engineering, 2021, 6, 152-164.	3.7	13
64	Furan-based acetylating agent for the chemical modification of proteins. Bioorganic and Medicinal Chemistry, 2015, 23, 791-796.	3.0	12
65	Carbon nanosphere supported Ru catalyst for the synthesis of renewable herbicide and chemicals. Catalysis Communications, 2017, 100, 206-209.	3.3	12
66	Efficient dual acidic carbo-catalyst for one-pot conversion of carbohydrates to levulinic acid. RSC Advances, 2016, 6, 100417-100426.	3.6	11
67	Thiol-promoted catalytic synthesis of high-performance furan-containing lubricant base oils from biomass derived 2-alkylfurans and ketones. Green Chemistry, 2020, 22, 7896-7906.	9.0	11
68	Synthesis of (hemi)cellulosic lubricant base oils<i>via</i>catalytic coupling and deoxygenation pathways. Green Chemistry, 2021, 23, 4916-4930.	9.0	9
69	Improved Graphene-Oxide-Derived Carbon Sponge for Effective Hydrocarbon Absorption and Câ€“C Coupling Reaction. ACS Sustainable Chemistry and Engineering, 2018, 6, 11793-11800.	6.7	5
70	Steering the Aspects of MgO-Induced Structure Sensitivity in Cu-Based Catalysts for CO₂-Rich Syngas Conversion to Dimethyl Ether: Cu/Zn Ratio and Lattice Parameters. Energy & Fuels, 2022, 36, 2673-2687.	5.1	4
71	Catalytic Hydrotreatment of Humins to Bioâ€Oil in Methanol over Supported Metal Catalysts. ChemSusChem, 2018, 11, 3545-3545.	6.8	2
72	Catalytic Hydrodeoxygenation of High Carbon Furylmethanes to Renewable Jet-fuel Ranged Alkanes over a Rhenium-Modified Iridium Catalyst. ChemSusChem, 2017, 10, 3164-3164.	6.8	0

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73	Branched Bioâ€Lubricant Base Oil Production through Aldol Condensation. ChemSusChem, 2019, 12, 4723-4723.	6.8	0
74	Selective Hydrodeoxygenation of Vegetable Oils and Waste Cooking Oils to Green Diesel Using a Silica-Supported Ir-ReO_{<i>x</i>} Bimetallic Catalyst. ChemSusChem, 0, , .	6.8	0