Saravanamurugan Shunmugavel

List of Publications by Year
in descending order

80	4,969	31	70
papers	citations	h-index	g-index
		147801	88630

84	84	84	4171
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	Conversion of Sugars to Lactic Acid Derivatives Using Heterogeneous Zeotype Catalysts. Science, 2010, 328, 602-605.	12.6	797
2	Carbon-Increasing Catalytic Strategies for Upgrading Biomass into Energy-Intensive Fuels and Chemicals. ACS Catalysis, 2018, 8, 148-187.	11.2	267
3	Zeoliteâ€Catalyzed Isomerization of Triose Sugars. ChemSusChem, 2009, 2, 625-627.	6.8	252
4	Sn-Beta catalysed conversion of hemicellulosic sugars. Green Chemistry, 2012, 14, 702.	9.0	216
5	Zeolite H-USY for the production of lactic acid and methyl lactate from C3-sugars. Journal of Catalysis, 2010, 269, 122-130.	6.2	200
6	Efficient Isomerization of Glucose to Fructose over Zeolites in Consecutive Reactions in Alcohol and Aqueous Media. Journal of the American Chemical Society, 2013, 135, 5246-5249.	13.7	195
7	Solid acid catalysed formation of ethyl levulinate and ethyl glucopyranoside from mono- and disaccharides. Catalysis Communications, 2012, 17, 71-75.	3.3	158
8	Acidâ€“Base Bifunctional Zirconium <i>N</i>-Alkyltriphosphate Nanohybrid for Hydrogen Transfer of Biomass-Derived Carboxides. ACS Catalysis, 2016, 6, 7722-7727.	11.2	158
9	Conversion of Monoâ€•and Disaccharides to Ethyl Levulinate and Ethyl Pyranoside with Sulfonic Acidâ€Functionalized Ionic Liquids. ChemSusChem, 2011, 4, 723-726.	6.8	155
10	Glucose Isomerization by Enzymes and Chemo-catalysts: Status and Current Advances. ACS Catalysis, 2017, 7, 3010-3029.	11.2	154
11	Amineâ€Functionalized Amino Acidâ€based Ionic Liquids as Efficient and Highâ€Capacity Absorbents for CO₂. ChemSusChem, 2014, 7, 897-902.	6.8	153
12	Direct transformation of carbohydrates to the biofuel 5-ethoxymethylfurfural by solid acid catalysts. Green Chemistry, 2016, 18, 726-734.	9.0	151
13	Zeolite and zeotype-catalysed transformations of biofuranic compounds. Green Chemistry, 2016, 18, 5701-5735.	9.0	142
14	Recent Advances in the Development of 5â€Hydroxymethylfurfural Oxidation with Base (Nonprecious)â€Metalâ€Containing Catalysts. ChemSusChem, 2019, 12, 145-163.	6.8	141
15	Direct synthesis of carbon-templating mesoporous ZSM-5 using microwave heating. Journal of Catalysis, 2010, 276, 327-334.	6.2	137
16	Zeolite Catalyzed Transformation of Carbohydrates to Alkyl Levulinates. ChemCatChem, 2013, 5, 1754-1757.	3.7	121
17	Knoevenagel condensation over Î² and Y zeolites in liquid phase under solvent free conditions. Applied Catalysis A: General, 2006, 298, 8-15.	4.3	106
18	Porous Zirconiumâ€“Furandicarboxylate Microspheres for Efficient Redox Conversion of Biofuranics. ChemSusChem, 2017, 10, 1761-1770.	6.8	81

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19	Acetalization of furfural with zeolites under benign reaction conditions. Catalysis Today, 2014, 234, 233-236.	4.4	71
20	Direct catalytic transformation of carbohydrates into 5-ethoxymethylfurfural with acidâ€“base bifunctional hybrid nanospheres. Energy Conversion and Management, 2014, 88, 1245-1251.	9.2	70
21	A Pd-Catalyzed in situ domino process for mild and quantitative production of 2,5-dimethylfuran directly from carbohydrates. Green Chemistry, 2017, 19, 2101-2106.	9.0	61
22	Tin-containing silicates: identification of a glycolytic pathway via 3-deoxyglucosone. Green Chemistry, 2016, 18, 3360-3369.	9.0	56
23	High Yield of Liquid Range Olefins Obtained by Converting <i>i</i>-Propanol over Zeolite H-ZSM-5. Journal of the American Chemical Society, 2009, 131, 17009-17013.	13.7	50
24	Catalytic Alkylation of 2-Methylfuran with Formalin Using Supported Acidic Ionic Liquids. ACS Sustainable Chemistry and Engineering, 2015, 3, 3274-3280.	6.7	50
25	Efficient Aerobic Oxidation of 5â€Hydroxymethylfurfural in Aqueous Media with Auâ€“Pd Supported on Zinc Hydroxycarbonate. ChemCatChem, 2016, 8, 3636-3643.	3.7	50
26	Transesterification reactions over morphology controlled amino-functionalized SBA-15 catalysts. Catalysis Communications, 2008, 9, 158-163.	3.3	49
27	Solvent free synthesis of chalcone and flavanone over zinc oxide supported metal oxide catalysts. Catalysis Communications, 2005, 6, 399-403.	3.3	42
28	Liquid phase reaction of 2â€²-hydroxyacetophenone and benzaldehyde over ZSM-5 catalysts. Journal of Molecular Catalysis A, 2004, 218, 101-106.	4.8	40
29	Xylose Isomerization with Zeolites in a Twoâ€Step Alcoholâ€“Water Process. ChemSusChem, 2015, 8, 1088-1094.	6.8	36
30	Combined Function of BrÃ¸nsted and Lewis Acidity in the Zeoliteâ€Catalyzed Isomerization of Glucose to Fructose in Alcohols. ChemCatChem, 2016, 8, 3107-3111.	3.7	35
31	Highly Selective Aerobic Oxidation of 5â€Hydroxymethyl Furfural into 2,5â€Diformylfuran over Mnâ€“Co Binary Oxides. ChemistrySelect, 2017, 2, 6632-6639.	1.5	32
32	Heterogeneous (de)chlorination-enabled control of reactivity in the liquid-phase synthesis of furanic biofuel from cellulosic feedstock. Green Chemistry, 2020, 22, 637-645.	9.0	32
33	Revisiting the BrÃ¸nsted acid catalysed hydrolysis kinetics of polymeric carbohydrates in ionic liquids by in situ ATR-FTIR spectroscopy. Green Chemistry, 2013, 15, 2843.	9.0	31
34	Shapeâ€selective Valorization of Biomassâ€derived Glycolaldehyde using Tinâ€containing Zeolites. ChemSusChem, 2016, 9, 3054-3061.	6.8	31
35	Control of selectivity in hydrosilane-promoted heterogeneous palladium-catalysed reduction of furfural and aromatic carboxides. Communications Chemistry, 2018, 1, .	4.5	31
36	Catalytic Upgrading of Biomassâ€Derived Sugars with Acidic Nanoporous Materials: Structural Role in Carbonâ€Chain Length Variation. ChemSusChem, 2019, 12, 347-378.	6.8	30

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37	Synthesis of highly acidic and well ordered MgAl-MCM-41 and its catalytic performance on the isopropylation of m-cresol. Microporous and Mesoporous Materials, 2004, 76, 91-98.	4.4	28
38	Noble metal-free upgrading of multi-unsaturated biomass derivatives at room temperature: silyl species enable reactivity. Green Chemistry, 2018, 20, 5327-5335.	9.0	28
39	Visible-light-driven prompt and quantitative production of lactic acid from biomass sugars over a N-TiO₂ photothermal catalyst. Green Chemistry, 2021, 23, 10039-10049.	9.0	27
40	Zeolite-catalyzed isomerization of tetroses in aqueous medium. Catalysis Science and Technology, 2014, 4, 3186.	4.1	26
41	Synthesis, characterisation and catalytic performance of HMCM-22 of different silica to alumina ratios. Journal of Molecular Catalysis A, 2007, 272, 38-44.	4.8	25
42	Heterostructured manganese catalysts for the selective oxidation of 5â€hydroxymethylfurfural to 2,5â€diformylfuran. ChemCatChem, 2020, 12, 2324-2332.	3.7	25
43	Liquid-phase reaction of 2â€²-hydroxyacetophenone and benzaldehyde over SO3H-SBA-15 catalysts: Influence of microwave and thermal effects. Microporous and Mesoporous Materials, 2008, 112, 97-107.	4.4	24
44	Aerobic Oxidation of Veratryl Alcohol to Veratraldehyde with Heterogeneous Ruthenium Catalysts. Topics in Catalysis, 2015, 58, 1036-1042.	2.8	24
45	BrÃ¸nsted Acid Ionic Liquids (BAILs) as Efficient and Recyclable Catalysts in the Conversion of Glycerol to Solketal at Room Temperature. ChemistrySelect, 2016, 1, 5869-5873.	1.5	23
46	MnOx/P25 with tuned surface structures of anatase-rutile phase for aerobic oxidation of 5-hydroxymethylfurfural into 2,5-diformylfuran. Catalysis Today, 2019, 319, 105-112.	4.4	23
47	Advances in the Catalytic Reductive Amination of Furfural to Furfural Amine: The Momentous Role of Active Metal Sites. ChemSusChem, 2022, 15, .	6.8	22
48	Endogenous Xâ€“Cî€O species enable catalyst-free formylation prerequisite for CO₂ reductive upgrading. Green Chemistry, 2020, 22, 5822-5832.	9.0	21
49	Mechanism and stereoselectivity of zeolite-catalysed sugar isomerisation in alcohols. Chemical Communications, 2016, 52, 12773-12776.	4.1	20
50	Oxyfunctionalisation of toluene with activated t-butyl hydroperoxide. Applied Catalysis A: General, 2004, 273, 143-149.	4.3	18
51	Highly Recyclable Fluoride for Enhanced Cascade Hydrosilylationâ€“Cyclization of Levulinates to Î³-Valerolactone at Low Temperatures. ACS Sustainable Chemistry and Engineering, 2017, 5, 9640-9644.	6.7	18
52	Quasi-Catalytic Approach to N-Unprotected Lactams via Transfer Hydro-amination/Cyclization of Biobased Keto Acids. ACS Sustainable Chemistry and Engineering, 2019, 7, 10207-10213.	6.7	18
53	Oxidation of 5-hydroxymethylfurfural to 5-formyl furan-2-carboxylic acid by non-precious transition metal oxide-based catalyst. Journal of Supercritical Fluids, 2020, 160, 104812.	3.2	18
54	Facile and benign conversion of sucrose to fructose using zeolites with balanced BrÃ¸nsted and Lewis acidity. Catalysis Science and Technology, 2017, 7, 2782-2788.	4.1	17

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55	Untangling the active sites in the exposed crystal facet of zirconium oxide for selective hydrogenation of bioaldehydes. Catalysis Science and Technology, 2020, 10, 7016-7026.	4.1	17
56	Chemoselective Synthesis of Dithioacetals from Bioâ€aldehydes with Zeolites under Ambient and Solventâ€free Conditions. ChemCatChem, 2017, 9, 1097-1104.	3.7	16
57	BrÃ¸nsted acid ionic liquid catalyzed formation of pyruvaldehyde dimethylacetal from triose sugars. Catalysis Today, 2013, 200, 94-98.	4.4	14
58	Consecutive Organosolv and Alkaline Pretreatment: An Efficient Approach toward the Production of Cellulose from Rice Straw. ACS Omega, 2021, 6, 27247-27258.	3.5	14
59	Modification of commercial Y zeolites by alkaline-treatment for improved performance in the isomerization of glucose to fructose. Molecular Catalysis, 2021, 510, 111686.	2.0	12
60	Catalytic Tandem Reaction for the Production of Jet and Diesel Fuel Range Alkanes. Energy Technology, 2018, 6, 1060-1066.	3.8	11
61	Alkylation and acylation of phenol with methyl acetate. Journal of Molecular Catalysis A, 2004, 223, 177-183.	4.8	10
62	Preface to Special Issue on Green Conversion of HMF. ChemSusChem, 2022, 15, .	6.8	10
63	Pd-catalysed formation of ester products from cascade reaction of 5-hydroxymethylfurfural with 1-hexene. Applied Catalysis A: General, 2019, 569, 170-174.	4.3	9
64	Selective Hydrodeoxygenation of Alkyl Lactates to Alkyl Propionates with Feâ€based Bimetallic Supported Catalysts. ChemSusChem, 2018, 11, 681-687.	6.8	8
65	Selective Gas Absorption by Ionic Liquids. ECS Transactions, 2010, 33, 117-126.	0.5	7
66	Ru-Catalyzed Oxidative Cleavage of Guaiacyl Glycerol--Guaiacyl Ether-a Representative -O-4 Lignin Model Compound. Catalysts, 2019, 9, 832.	3.5	7
67	Rice Straw: A Major Renewable Lignocellulosic Biomass for Value-Added Carbonaceous Materials. Current Green Chemistry, 2020, 7, 290-303.	1.1	7
68	Tin Grafted on Modified Alumina-Catalyzed Isomerisation of Glucose to Fructose. Applied Catalysis A: General, 2019, 582, 117094.	4.3	6
69	Synthesis and Characterization of Ammonium-, Pyridinium-, and Pyrrolidinium-Based Sulfonamido Functionalized Ionic Liquids. Synthetic Communications, 2012, 42, 3383-3394.	2.1	5
70	Shape-selective Valorization of Biomass-derived Glycolaldehyde using Tin-containing Zeolites. ChemSusChem, 2016, 9, 3022-3022.	6.8	5
71	Aluminaâ€Supported Alkali and Alkaline Earth Metalâ€Based Catalyst for Selective Decarboxylation of Itaconic Acid to Methacrylic Acid. ChemistrySelect, 2021, 6, 3352-3359.	1.5	5
72	Heterogeneous Baseâ€Catalyzed Conversion of Glycolaldehyde to Aldotetroses: Mechanistic and Kinetic Insight. ChemCatChem, 2021, 13, 5141-5147.	3.7	5

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73	Highly Selective Liquid-Phase Benzylation of Anisole with Solid-Acid Zeolite Catalysts. Topics in Catalysis, 2015, 58, 1053-1061.	2.8	4
74	Chemoselective Oxidation of Bio-Glycerol with Nano-Sized Metal Catalysts. Mini-Reviews in Organic Chemistry, 2015, 12, 162-177.	1.3	4
75	Porous Zrâ€Bibenzyldiphosphonate Nanohybrid with Extra Hydroxy Species for Enhancive Upgrading of Biomassâ€Based Levulinates. ChemistrySelect, 2018, 3, 4252-4261.	1.5	3
76	Short channeled amino functionalized SBA-15 catalysts for the liquid phase reaction between 2-hydroxyacetophenone and benzaldehyde. Studies in Surface Science and Catalysis, 2008, 174, 1271-1274.	1.5	1
77	Catalytic Upgrading of Biorenewables to Value-Added Products. International Journal of Chemical Engineering, 2019, 2019, 1-2.	2.4	1
78	On The Rise: Heterogeneous Catalysis for Biomass Valorisation. Current Catalysis, 2021, 10, 101-102.	0.5	1
79	Liquid phase reaction of 2$prime;-hydroxyacetophenone and benzaldehyde over ZSM-5 catalysts. Journal of Molecular Catalysis A, 2004, 218, 101-101.	4.8	0
80	Catalytic Interconversion of Sugars with Zeolite and Zeotype Materials. , 2019, , 57-71.		0