Biswajit Chowdhury

List of Publications by Year
in descending order

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85 papers	3,032 citations	136740 32 h-index	168136 53 g-index
89 all docs	89 docs citations	89 times ranked	3464 citing authors

#	Article	IF	Citations
1	An XPS study of the dispersion of MoO3 on TiO2â€“ZrO2, TiO2â€“SiO2, TiO2â€“Al2O3, SiO2â€“ZrO2, and SiO2â€“TiO2â€“ZrO2 mixed oxides. Applied Catalysis A: General, 2001, 211, 19-30.	2.2	228
2	Trimethylamine as a Gas-Phase Promoter: Highly Efficient Epoxidation of Propylene over Supported Gold Catalysts. Angewandte Chemie - International Edition, 2006, 45, 412-415.	7.2	196
3	Knoevenagel condensation reaction over acidâ€“base bifunctional nanocrystalline Ce Zr1â^'O2 solid solutions. Journal of Catalysis, 2010, 269, 110-121.	3.1	176
4	Catalytic reduction of CO₂ into fuels and fine chemicals. Green Chemistry, 2020, 22, 4002-4033.	4.6	162
5	In Situ UVâ^'vis and EPR Study on the Formation of Hydroperoxide Species during Direct Gas Phase Propylene Epoxidation over Au/Ti-SiO2Catalyst. Journal of Physical Chemistry B, 2006, 110, 22995-22999.	1.2	140
6	Reflections on the chemistry of the Fischerâ€“Tropsch synthesis. RSC Advances, 2012, 2, 7347.	1.7	109
7	Lower alkanes dehydrogenation: Strategies and reaction routes to corresponding alkenes. Fuel Processing Technology, 2016, 149, 239-255.	3.7	102
8	An XPS study of dispersion and chemical state of MoO3 on Al2O3-TiO2 binary oxide support. Applied Catalysis A: General, 2001, 213, 279-288.	2.2	97
9	Characterization of V2O5/TiO2â^'ZrO2Catalysts by XPS and Other Techniques. Journal of Physical Chemistry B, 1998, 102, 10176-10182.	1.2	96
10	An XPS study of La2O3 and In2O3 influence on the physicochemical properties of MoO3/TiO2 catalysts. Applied Catalysis A: General, 2001, 219, 53-60.	2.2	76
11	Design of stable and reactive vanadium oxide catalysts supported on binary oxides. Catalysis Today, 1999, 49, 115-121.	2.2	75
12	Ketonization of oxygenated hydrocarbons on metal oxide based catalysts. Catalysis Today, 2018, 302, 16-49.	2.2	65
13	Sm-CeO2 supported gold nanoparticle catalyst for benzyl alcohol oxidation using molecular O2. Applied Catalysis A: General, 2013, 452, 94-104.	2.2	63
14	Barium, calcium and magnesium doped mesoporous ceria supported gold nanoparticle for benzyl alcoholoxidation using molecular O₂. Catalysis Science and Technology, 2013, 3, 360-370.	2.1	61
15	Aerobic oxidation of benzyl alcohol over mesoporous Mn-doped ceria supported Au nanoparticle catalyst. Journal of Molecular Catalysis A, 2013, 378, 47-56.	4.8	57
16	Recyclable Au/SiO₂-Shell/Fe₃O₄-Core Catalyst for the Reduction of Nitro Aromatic Compounds in Aqueous Solution. ACS Omega, 2019, 4, 4071-4081.	1.6	54
17	Silylation enhances the performance of Au/Tiâ€“SiO2 catalysts in direct epoxidation of propene using H2 and O2. Journal of Catalysis, 2016, 344, 434-444.	3.1	46
18	The effect of modifier identity on the performance of Ni-based catalyst supported on Î³-Al2O3 in dry reforming of methane. Catalysis Today, 2020, 348, 236-242.	2.2	46

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19	Decomposition of methane over alumina supported Fe and Niâ€“Fe bimetallic catalyst: Effect of preparation procedure and calcination temperature. Journal of Saudi Chemical Society, 2018, 22, 239-247.	2.4	44
20	Fabrication of a hollow sphere N,S co-doped bifunctional carbon catalyst for sustainable fixation of CO₂ to cyclic carbonates. Green Chemistry, 2022, 24, 1673-1692.	4.6	42
21	Characterization of MoO3/TiO2â€“ZrO2 catalysts by XPS and other techniques. Journal of Molecular Catalysis A, 2000, 162, 431-441.	4.8	41
22	Cross-Linked Porous Polymers as Heterogeneous Organocatalysts for Task-Specific Applications in Biomass Transformations, CO₂ Fixation, and Asymmetric Reactions. ACS Sustainable Chemistry and Engineering, 2021, 9, 12431-12460.	3.2	40
23	Activity of silylated titanosilicate supported gold nanoparticles towards direct propylene epoxidation reaction in the presence of trimethylamine. Journal of Molecular Catalysis A, 2012, 359, 21-27.	4.8	39
24	Comprehensive Study for Vapor Phase Beckmann Rearrangement Reaction over Zeolite Systems. Industrial & Engineering Chemistry Research, 2014, 53, 16587-16599.	1.8	39
25	A green approach for the preparation of a surfactant embedded sulfonated carbon catalyst towards glycerol acetalization reactions. Catalysis Science and Technology, 2020, 10, 4827-4844.	2.1	37
26	Highly active Ga promoted Co-HMS-X catalyst towards styrene epoxidation reaction using molecular O2. Applied Catalysis A: General, 2014, 482, 61-68.	2.2	36
27	CO2 hydrogenation over functional nanoporous polymers and metal-organic frameworks. Advances in Colloid and Interface Science, 2021, 290, 102349.	7.0	36
28	Mesoporous titanosilicate Ti-TUD-1 catalyzed Knoevenagel reaction: An efficient green synthesis of trisubstituted electrophilic olefins. Catalysis Communications, 2010, 11, 601-605.	1.6	35
29	Bi doped CeO₂ oxide supported gold nanoparticle catalysts for the aerobic oxidation of alcohols. RSC Advances, 2016, 6, 45330-45342.	1.7	34
30	Effect of Cerium Promoters on an MCM-41-Supported Nickel Catalyst in Dry Reforming of Methane. Industrial & Engineering Chemistry Research, 2022, 61, 164-174.	1.8	33
31	Dispersion and Thermal Stability of MoO3on TiO2-ZrO2Mixed Oxide Support. Journal of Catalysis, 1998, 179, 413-419.	3.1	32
32	X-ray Photoelectron Spectroscopy Study of V2O5Dispersion on a Nanosized Al2O3-TiO2Mixed Oxide. Langmuir, 2001, 17, 1132-1137.	1.6	32
33	Ga-TUD-1: A new heterogeneous mesoporous catalyst for the solventless expeditious synthesis of Î±-aminonitriles. Applied Catalysis A: General, 2011, 392, 111-117.	2.2	32
34	Synthesis, characterization of VPO catalyst dispersed on mesoporous silica surface and catalytic activity for cyclohexane oxidation reaction. Microporous and Mesoporous Materials, 2016, 223, 121-128.	2.2	31
35	Niobium doped hexagonal mesoporous silica (HMS-X) catalyst for vapor phase Beckmann rearrangement reaction. RSC Advances, 2014, 4, 845-854.	1.7	28
36	Mesoporous TUD-1 supported indium oxide nanoparticles for epoxidation of styrene using molecular O₂. RSC Advances, 2015, 5, 46850-46860.	1.7	28

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37	An overview of caprolactam synthesis. Catalysis Reviews - Science and Engineering, 2019, 61, 516-594.	5.7	27
38	Synthesis, characterization of Ga-TUD-1 catalyst and its activity towards styrene epoxidation reaction. Catalysis Communications, 2011, 12, 734-738.	1.6	24
39	Role of oxygen vacancy in cobalt doped ceria catalyst for styrene epoxidation using molecular oxygen. Molecular Catalysis, 2018, 451, 238-246.	1.0	24
40	Vapour-Phase Selective Oxidation of 4-Methylanisole to Anisaldehyde over V2O5/Ga2O3-TiO2Catalyst. Chemistry Letters, 1997, 26, 1145-1146.	0.7	22
41	Aerobic Baeyerâ€“Villiger oxidation of cyclic ketones over periodic mesoporous silica Cu/Fe/Ni/Co-HMS-X. Applied Catalysis A: General, 2015, 505, 515-523.	2.2	21
42	Transmission Electron Microscopy and Energy-Dispersive X-ray Spectroscopy Study of V2O5/TiO2â^'ZrO2Catalyst. Langmuir, 2000, 16, 4217-4221.	1.6	20
43	Bismuth supported SBA-15 catalyst for vapour phase Beckmann rearrangement reaction of cyclohexanone oxime to É›-caprolactam. Applied Catalysis A: General, 2015, 497, 51-57.	2.2	20
44	Highly stable In-SBA-15 catalyst for vapor phase Beckmann rearrangement reaction. Microporous and Mesoporous Materials, 2016, 234, 293-302.	2.2	20
45	Highly active InOx/TUD-1 catalyst towards Baeyerâ€“Villiger oxidation of cyclohexanone using molecular oxygen and benzaldehyde. Catalysis Communications, 2016, 74, 80-84.	1.6	17
46	Bi-metallic catalysts of mesoporous Al2O3 supported on Fe, Ni and Mn for methane decomposition: Effect of activation temperature. Chinese Journal of Chemical Engineering, 2018, 26, 1904-1911.	1.7	17
47	Direct epoxidation of propene on silylated Auâ€“Ti catalysts: a study on silylation procedures and the effect on propane formation. Catalysis Science and Technology, 2018, 8, 3052-3059.	2.1	17
48	Vanadiaâ€“chromia grafted on titania: structural and catalytic properties in the selective catalytic reduction of NO by NH3. Journal of Molecular Catalysis A, 2000, 162, 423-430.	4.8	16
49	Efficient oxidation of hydrocarbons over nanocrystalline Ce_{1â^'x}Sm_xO₂ (x = 0â€“0.1) synthesized using supercritical water. RSC Advances, 2015, 5, 45144-45151.	1.7	15
50	Nobel metal free, oxidant free, solvent free catalytic transformation of alcohol to aldehyde over ZnO-CeO2 mixed oxide catalyst. Applied Catalysis A: General, 2016, 523, 21-30.	2.2	15
51	Gold nanoparticles on mesoporous Cerium-Tin mixed oxide for aerobic oxidation of benzyl alcohol. Journal of Molecular Catalysis A, 2016, 418-419, 41-53.	4.8	15
52	A highly efficient, eco-friendly, room temperature synthesis of bis(indolyl)methanes using the mesoporous titanosilicate Ti-TUD-1: electrophilic substitution reactions of indoles - Part-XXXIII. Arkivoc, 2009, 2009, 209-216.	0.3	15
53	XAFS, XPS characterization of cerium promoted Ti-TUD-1 catalyst and it's activity for styrene oxidation reaction. Catalysis Communications, 2014, 46, 123-127.	1.6	13
54	Iron Oxide Supported on Al₂O₃ Catalyst for Methane Decomposition Reaction: Effect of MgO Additive and Calcination Temperature. Journal of the Chinese Chemical Society, 2016, 63, 205-212.	0.8	11

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55	Controllable synthesis of niobium doped mesoporous silica materials with various morphologies and its activity for oxidative catalysis. Microporous and Mesoporous Materials, 2016, 226, 169-178.	2.2	11
56	A simple synthesis of ethylene carbonate from carbon dioxide and 2-chloroethanol using silica gel as a catalyst. Applied Catalysis A: General, 2020, 592, 117433.	2.2	11
57	Soft-templating routes for the synthesis of mesoporous tantalum phosphates and their catalytic activity in glycerol dehydration and carbonylation reactions. Molecular Catalysis, 2022, 518, 112074.	1.0	11
58	TPR and TPD studies of effects of Cu and Ca promotion on Feâ€“Zn-based Fischerâ€“Tropsch catalysts. Journal of Chemical Sciences, 2013, 125, 679-686.	0.7	10
59	Silica gel modified with tetraalkylammonium halides as an available and efficient catalyst for the synthesis of cyclic organic carbonates from epoxides and CO2. Russian Chemical Bulletin, 2019, 68, 1866-1868.	0.4	10
60	Palladium Impregnated Amine Coâ€condensed Hexagonal Mesoporous Silica: A Novel Catalyst in Tailoring Suzuki and Heck Coupling Reactions in Base Free Condition. ChemistrySelect, 2019, 4, 3823-3832.	0.7	10
61	Low CO2 selective iron based Fischerâ€“Tropsch catalysts for coal based polygeneration. Applied Energy, 2013, 107, 377-383.	5.1	9
62	The use of a diammonium salt in the synthesis of organic carbonates from epoxides and CO2: promoting effect of support. Russian Chemical Bulletin, 2020, 69, 1076-1079.	0.4	9
63	Indium oxide nanocluster doped TiO₂ catalyst for activation of molecular O₂. RSC Advances, 2015, 5, 67089-67092.	1.7	8
64	Hydroxy-containing ionic liquids as catalysts in the synthesis of organic carbonates from epoxides and CO2. Russian Chemical Bulletin, 2020, 69, 1598-1600.	0.4	8
65	Dehydration of isopropanol to propylene over fullerene[C60] containing niobium phosphate catalyst: Study on catalyst recyclability. Molecular Catalysis, 2019, 475, 110470.	1.0	7
66	Comparative TPR and TPD Studies of Cu and Ca Promotion on Fe-Zn- and Fe-Zn-Zr-Based Fischer-Tropsch Catalysts. Oil and Gas Science and Technology, 2015, 70, 511-519.	1.4	6
67	Synthesis, characterization and correlation with the catalytic activity of efficient mesoporous niobia and mesoporous niobiaâ€“zirconia mixed oxide catalyst system. Catalysis Communications, 2016, 77, 42-46.	1.6	6
68	Catalytic transformation of ethanol to methane and butene over NiO NPs supported over mesoporous SBA-15. Molecular Catalysis, 2021, 502, 111381.	1.0	6
69	Amine-Iodine Adducts as Simple but Effective Catalysts for the Synthesis of Organic Carbonates from Epoxides and CO2. Catalysis Surveys From Asia, 2021, 25, 419-423.	1.0	6
70	Synthesis of cyclic carbonates of different epoxides using CO2 as a C1 building block over Ag/TUD-1 mesoporous silica catalyst: A solvent free approach. Molecular Catalysis, 2022, 522, 112234.	1.0	6
71	Highly Acidic, Thermal Stable NbPO₄@Fullerene Catalyst for Dehydration of Cyclohexanol. ChemistrySelect, 2017, 2, 5640-5645.	0.7	5
72	Aerobic Oxidation of Styrene over Indiumâ€Impregnated Mesoporous Silica: Distinctive Effect of Supports on Epoxidation Activity. ChemistrySelect, 2020, 5, 11882-11889.	0.7	5

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73	Indium oxide nanoparticles embedded in TUD-1 as a highly selective catalyst for toluene to benzaldehyde oxidation using TBHP as oxidant. Chemical Papers, 2020, 74, 2091-2100.	1.0	5
74	Iodine as an efficient and available activator of sodium and potassium halides in carbon dioxide addition to epoxides. Russian Chemical Bulletin, 2021, 70, 1324-1327.	0.4	5
75	Addition of carbon dioxide to epoxides catalyzed by the mixtures of Î±-amino acids and iodine. Russian Chemical Bulletin, 2022, 71, 408-411.	0.4	4
76	Role of bismuth on aerobic benzyl alcohol oxidation over ceria polymorph-supported gold nanoparticles. Catalysis Communications, 2020, 140, 106004.	1.6	3
77	Sodium and potassium halides as catalysts for the addition of carbon dioxide to epoxides: the effect of co-solvents. Russian Chemical Bulletin, 2021, 70, 732-734.	0.4	3
78	Polyethylenimine-based catalysts for the addition of carbon dioxide to epoxides: an effect of substituents. Russian Chemical Bulletin, 2021, 70, 1533-1536.	0.4	3
79	Effect of the Agâ€“CeO2 interaction and the nature of pore structure on the catalytic activities of different Agâ€“CeO2/mesoporous-SiO2 catalysts on the reduction of 4-nitrophenol. Journal of Porous Materials, 2022, 29, 893-906.	1.3	3
80	Synthesis of carborane-containing carbonates via CO2 addition to epoxides. Polyhedron, 2021, 208, 115418.	1.0	2
81	Catalytic Conversion of Biomass-Derived Glycerol to Value-Added Chemicals. , 2021, , 459-504.		2
82	Synthesis of organic cyclic carbonates assisted by macroporous polystyrene-based catalyst. Russian Chemical Bulletin, 2020, 69, 2345-2348.	0.4	2
83	The use of triethanolamine ammonium salts as catalysts for the addition of carbon dioxide to epoxides. Russian Chemical Bulletin, 2022, 71, 404-407.	0.4	1
84	Design of 3-D mesoporous silylated titanosilicate supported gold nanoparticles for direct vapor phase epoxidation of propylene: Role of solid and gaseous promoters. , 2010, , .		0
85	Solvent-free benzyl alcohol oxidation reaction over Sm-CeO2 supported gold nanoparticle using tert-butyl hydroperoxide (TBHP) as an oxidant. Natural Resources & Engineering, 2016, 1, 43-50.	0.3	0