Santhosh Kumar Matam

List of Publications by Year
in descending order

46	1,169	394421 19	395702 33
papers	citations	h-index	g-index

46	46	46	1857
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Local and nanoscale methanol mobility in different H-FER catalysts. Catalysis Science and Technology, 2022, 12, 1663-1677.	4.1	2
2	Carbene-like reactivity of methoxy groups in a single crystal SAPO-34 MTO catalyst. Catalysis Science and Technology, 2022, 12, 2289-2305.	4.1	4
3	A Workflow Demonstrator for Processing Catalysis Research Data. Data Intelligence, 2022, 4, 455-470.	1.5	4
4	Methanol dynamics in H-ZSM-5 with Si/Al ratio of 25: a quasi-elastic neutron scattering (QENS) study. Topics in Catalysis, 2021, 64, 699-706.	2.8	9
5	Silicon microfabricated reactor for operando XAS/DRIFTS studies of heterogeneous catalytic reactions. Catalysis Science and Technology, 2020, 10, 7842-7856.	4.1	6
6	Investigation of MoOx/Al2O3 under Cyclic Operation for Oxidative and Non-Oxidative Dehydrogenation of Propane. Catalysts, 2020, 10, 1370.	3.5	5
7	Methanol loading dependent methoxylation in zeolite H-ZSM-5. Chemical Science, 2020, 11, 6805-6814.	7.4	21
8	Effects of crystal size on methanol to hydrocarbon conversion over single crystals of ZSM-5 studied by synchrotron infrared microspectroscopy. Physical Chemistry Chemical Physics, 2020, 22, 18849-18859.	2.8	10
9	Elementary Steps in the Formation of Hydrocarbons from Surface Methoxy Groups in HZSM-5 Seen by Synchrotron Infrared Microspectroscopy. ACS Catalysis, 2019, 9, 6564-6570.	11.2	48
10	Investigation of ZSM-5 catalysts for dimethylether conversion using inelastic neutron scattering. Applied Catalysis A: General, 2019, 569, 1-7.	4.3	17
11	The effect of activation time on water sorption behavior of nitrogen-doped, physically activated, monolithic carbon for adsorption cooling. Microporous and Mesoporous Materials, 2019, 276, 239-250.	4.4	11
12	Room temperature methoxylation in zeolite H-ZSM-5: an operando DRIFTS/mass spectrometric study. Chemical Communications, 2018, 54, 12875-12878.	4.1	25
13	Facile synthesis of resorcinol-melamine-formaldehyde based carbon xerogel. Materials Today: Proceedings, 2018, 5, 13776-13784.	1.8	9
14	The effects of MTG catalysis on methanol mobility in ZSM-5. Catalysis Science and Technology, 2018, 8, 3304-3312.	4.1	23
15	The Origin of the Catalytic Activity of a Metal Hydride in CO₂ Reduction. Angewandte Chemie, 2016, 128, 6132-6136.	2.0	15
16	The Origin of the Catalytic Activity of a Metal Hydride in CO₂ Reduction. Angewandte Chemie - International Edition, 2016, 55, 6028-6032.	13.8	50
17	Water sorption behavior of physically and chemically activated monolithic nitrogen doped carbon for adsorption cooling. RSC Advances, 2016, 6, 80729-80738.	3.6	14
18	Electron energy loss spectroscopy analysis of the interaction of Cr and V with MWCNTs. Micron, 2016, 84, 37-42.	2.2	3

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19	Monolithic nitrogen-doped carbon as a water sorbent for high-performance adsorption cooling. RSC Advances, 2016, 6, 25267-25278.	3.6	18
20	Methanol steam reforming catalysts derived by reduction of perovskite-type oxides LaCo_{1â^'xâ^'y}Pd_xZn_yO_{3Â±Î´}. Catalysis Science and Technology, 2016, 6, 1455-1468.	4.1	31
21	Composition dependent selfâ€regenerative property of perovskiteâ€type oxides. Physica Status Solidi - Rapid Research Letters, 2015, 9, 282-287.	2.4	10
22	Methanol steam reforming on LaCo1â^'â^'Pd Zn O3Â±. Catalysis Today, 2015, 258, 256-261.	4.4	8
23	New Synthesis of ZSM-5 from High-Silica Kaolinite and Its Use in Vapor-Phase Conversion of 1-Phenylethanol to Styrene. Industrial & Engineering Chemistry Research, 2015, 54, 3754-3760.	3.7	13
24	Methanol Steam Reforming on Perovskite-Type Oxides LaCo1â^'xâ^'yPdxZnyO3Â±Î´: Effect of Pd/Zn on CO2 Selectivity. Topics in Catalysis, 2015, 58, 905-909.	2.8	14
25	Methyltrimethoxysilane (MTMS)-based silicaâ€“iron oxide superhydrophobic nanocomposites. Journal of Colloid and Interface Science, 2015, 459, 123-126.	9.4	19
26	Dimensional and Structural Control of Silica Aerogel Membranes for Miniaturized Motionless Gas Pumps. ACS Applied Materials & Interfaces, 2015, 7, 18803-18814.	8.0	28
27	Structured Perovskite-Based Catalysts and Their Application as Three-Way Catalytic Convertersâ€”A Review. Catalysts, 2014, 4, 226-255.	3.5	125
28	Methane abatement under stoichiometric conditions on perovskite-supported palladium catalysts prepared by flame spray synthesis. Applied Catalysis B: Environmental, 2014, 144, 631-643.	20.2	32
29	A modulated excitation ED-EXAFS/DRIFTS study of hydrothermal ageing of Rh/Al2O3. Catalysis Today, 2014, 229, 80-87.	4.4	27
30	Chromium-induced deactivation of a commercial honeycomb noble metal-based CO oxidation catalyst. Applied Catalysis A: General, 2014, 469, 259-266.	4.3	6
31	Gasâ€“Solid Reaction of Carbon Dioxide with Alanates. Journal of Physical Chemistry C, 2014, 118, 15940-15945.	3.1	21
32	The Intermetallic Compound ZnPd and Its Role in Methanol Steam Reforming. Catalysis Reviews - Science and Engineering, 2013, 55, 289-367.	12.9	102
33	PdO x /Pd at Work in a Model Three-Way Catalyst for Methane Abatement Monitored by Operando XANES. Topics in Catalysis, 2013, 56, 239-242.	2.8	26
34	Observations on the Aging Environment Dependent NO Oxidation Activity of Model Pt/Al2O3 Diesel Oxidation Catalyst. Topics in Catalysis, 2013, 56, 329-332.	2.8	1
35	Bandgap tuning in SrTi(N,O,F)3 by anionic-lattice variation. Journal of Solid State Chemistry, 2013, 206, 226-232.	2.9	33
36	Synchrotron high energy X-ray methods coupled to phase sensitive analysis to characterize aging of solid catalysts with enhanced sensitivity. Physical Chemistry Chemical Physics, 2013, 15, 8629.	2.8	36

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37	Time resolved operando spectroscopic study of the origin of phosphorus induced chemical aging of model three-way catalysts Pd/Al2O3. Catalysis Today, 2013, 205, 3-9.	4.4	17
38	Influence of the synthesis method on the structure of Pd-substituted perovskite catalysts for methane oxidation. Catalysis Today, 2013, 208, 42-47.	4.4	38
39	The impact of aging environment on the evolution of Al2O3 supported Pt nanoparticles and their NO oxidation activity. Applied Catalysis B: Environmental, 2013, 129, 214-224.	20.2	45
40	Improved photoluminescence and afterglow of CaTiO_3:Pr^3+ by ammonia treatment. Optical Materials Express, 2013, 3, 248.	3.0	15
41	Perovskite-supported Palladium for Methane Oxidation â€“ Structureâ€“Activity Relationships. Chimia, 2012, 66, 675-680.	0.6	7
42	On the State of Pd in Perovskite-Type Oxidation Catalysts of Composition A(B,Pd)O_{3Â±Î´} (A =) Tj ETQq0 0 0 rgBT /Overlock	6.7	59
43	Thermal and chemical aging of model three-way catalyst Pd/Al2O3 and its impact on the conversion of CNG vehicle exhaust. Catalysis Today, 2012, 184, 237-244.	4.4	75
44	Lab Scale Fixed-Bed Reactor for Operando X-Ray Absorption Spectroscopy for Structure Activity Studies of Supported Metal Oxide Catalysts. Topics in Catalysis, 2011, 54, 1213-1218.	2.8	6
45	Revisiting the Problem of Active Sites for Methane Combustion on Pd/Al₂O₃ by Operando XANES in a Lab-Scale Fixed-Bed Reactor. Journal of Physical Chemistry C, 2010, 114, 9439-9443.	3.1	78
46	In situ synthesis by saltâ€“surface interaction and the catalytic functionality of the ammonium salt of 12-tungstophosphoric acid. Green Chemistry, 2002, 4, 344-346.	9.0	3