Matteo Monai

List of Publications by Year in descending order

43 papers	4,152 citations	201674 27 h-index	243625 44 g-index
46 all docs	46 docs citations	46 times ranked	6207 citing authors

#	Article	IF	Citations
1	Fundamentals and Catalytic Applications of CeO₂-Based Materials. Chemical Reviews, 2016, 116, 5987-6041.	47.7	1,883
2	The renaissance of the Sabatier reaction and its applications on Earth and in space. Nature Catalysis, 2019, 2, 188-197.	34.4	369
3	Mechanisms for High Selectivity in the Hydrodeoxygenation of 5-Hydroxymethylfurfural over PtCo Nanocrystals. ACS Catalysis, 2016, 6, 4095-4104.	11.2	124
4	Understanding carbon dioxide activation and carbonâ€“carbon coupling over nickel. Nature Communications, 2019, 10, 5330.	12.8	124
5	Structure Sensitivity in Steam and Dry Methane Reforming over Nickel: Activity and Carbon Formation. ACS Catalysis, 2020, 10, 1428-1438.	11.2	109
6	Catalytic Oxidation of Methane: Pd and Beyond. European Journal of Inorganic Chemistry, 2018, 2018, 2884-2893.	2.0	105
7	Propane to olefins tandem catalysis: a selective route towards light olefins production. Chemical Society Reviews, 2021, 50, 11503-11529.	38.1	104
8	Base metal-Pt alloys: A general route to high selectivity and stability in the production of biofuels from HMF. Applied Catalysis B: Environmental, 2016, 199, 439-446.	20.2	100
9	Methane Catalytic Combustion over Hierarchical Pd@CeO₂/Siâ€Al₂O₃: Effect of the Presence of Water. ChemCatChem, 2015, 7, 2038-2046.	3.7	98
10	Smart Pd Catalyst with Improved Thermal Stability Supported on High-Surface-Area LaFeO₃ Prepared by Atomic Layer Deposition. Journal of the American Chemical Society, 2018, 140, 4841-4848.	13.7	85
11	Unraveling the surface state and composition of highly selective nanocrystalline Niâ€“Cu alloy catalysts for hydrodeoxygenation of HMF. Catalysis Science and Technology, 2017, 7, 1735-1743.	4.1	82
12	The effect of sulfur dioxide on the activity of hierarchical Pd-based catalysts in methane combustion. Applied Catalysis B: Environmental, 2017, 202, 72-83.	20.2	80
13	Brookite: Nothing New under the Sun?. Catalysts, 2017, 7, 304.	3.5	71
14	Uncovering the reaction mechanism behind CoO as active phase for CO2 hydrogenation. Nature Communications, 2022, 13, 324.	12.8	69
15	Dye-sensitized photocatalytic hydrogen production: distinct activity in a glucose derivative of a phenothiazine dye. Chemical Communications, 2016, 52, 6977-6980.	4.1	55
16	The H2 Pressure Dependence of Hydrodeoxygenation Selectivities for Furfural Over Pt/C Catalysts. Catalysis Letters, 2016, 146, 711-717.	2.6	54
17	Dye-Sensitized Photocatalytic Hydrogen Generation: Efficiency Enhancement by Organic Photosensitizerâ€“Coadsorbent Intermolecular Interaction. ACS Energy Letters, 2018, 3, 85-91.	17.4	48
18	Highly efficient hydrogen production through ethanol photoreforming by a carbon nanocone/Pd@TiO₂ hybrid catalyst. Chemical Communications, 2016, 52, 764-767.	4.1	45

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19	Nanostructured Pd Pt nanoparticles: evidences of structure/performance relations in catalytic H2 production reactions. Applied Catalysis B: Environmental, 2018, 236, 88-98.	20.2	45
20	Modification of Pd/CeO2 catalyst by Atomic Layer Deposition of ZrO2. Applied Catalysis B: Environmental, 2016, 197, 280-285.	20.2	38
21	Towards Sustainable H₂ Production: Rational Design of Hydrophobic Triphenylamineâ€based Dyes for Sensitized Ethanol Photoreforming. ChemSusChem, 2018, 11, 793-805.	6.8	36
22	High-surface-area, iron-oxide films prepared by atomic layer deposition on Î³-Al2O3. Applied Catalysis A: General, 2017, 534, 70-77.	4.3	34
23	A New Porous Hybrid Material Derived From Silica Fume and Alginate for Sustainable Pollutants Reduction. Frontiers in Chemistry, 2018, 6, 60.	3.6	34
24	Dynamic restructuring of supported metal nanoparticles and its implications for structure insensitive catalysis. Nature Communications, 2021, 12, 7096.	12.8	33
25	Cerium Oxide Nanoparticles Absorption through Intact and Damaged Human Skin. Molecules, 2019, 24, 3759.	3.8	32
26	H2 production by photocatalytic reforming of oxygenated compounds using TiO2-based materials. Materials Science in Semiconductor Processing, 2016, 42, 122-130.	4.0	30
27	In situ Nanoscale Infrared Spectroscopy of Water Adsorption on Nanoislands of Surfaceâ€Anchored Metalâ€Organic Frameworks. Angewandte Chemie - International Edition, 2021, 60, 1620-1624.	13.8	29
28	Phosphorus poisoning during wet oxidation of methane over Pd@CeO2/graphite model catalysts. Applied Catalysis B: Environmental, 2016, 197, 271-279.	20.2	28
29	The water gas shift reaction over Ptâ€“CeO2 nanoparticles confined within mesoporous SBA-16. Journal of Materials Chemistry A, 2017, 5, 20024-20034.	10.3	25
30	In Situ X-ray Raman Scattering Spectroscopy of the Formation of Cobalt Carbides in a Co/TiO₂ Fischerâ€“Tropsch Synthesis Catalyst. ACS Catalysis, 2021, 11, 809-819.	11.2	24
31	Enhanced photocatalytic hydrogen generation using carbazole-based sensitizers. Sustainable Energy and Fuels, 2017, 1, 694-698.	4.9	23
32	Inâ€…SituShellâ€Isolated Nanoparticleâ€Enhanced Raman Spectroscopy of Nickelâ€Catalyzed Hydrogenation Reactions. ChemPhysChem, 2020, 21, 625-632.	2.1	21
33	Calcination temperature effects on Pd/alumina catalysts: Particle size, surface species and activity in methane combustion. Catalysis Today, 2021, 382, 120-129.	4.4	21
34	Alkali Promotion in the Formation of CH₄ from CO₂ and Renewably Produced H₂ over Supported Ni Catalysts. ChemCatChem, 2020, 12, 2792-2800.	3.7	17
35	From metal to metal-free catalysts: Routes to sustainable chemistry. Advances in Catalysis, 2018, 63, 1-73.	0.2	16
36	Supported Mn₃O₄ Nanosystems for Hydrogen Production through Ethanol Photoreforming. Langmuir, 2018, 34, 4568-4574.	3.5	13

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37	Nano-scale insights regarding coke formation in zeolite SSZ-13 subject to the methanol-to-hydrocarbons reaction. Catalysis Science and Technology, 2022, 12, 1220-1228.	4.1	13
38	New insights into the NH₃-selective catalytic reduction of NO over Cu-ZSM-5 as revealed by operando spectroscopy. Catalysis Science and Technology, 2022, 12, 2589-2603.	4.1	12
39	A Study of How LaFeO₃ and CaTiO₃ Supports Affect the Oxidation, Hydrogenation, and Methane Steam Reforming Activity of Pt and Ni Catalysts. Journal of Physical Chemistry C, 2022, 126, 11619-11628.	3.1	7
40	In situ Nanoscale Infrared Spectroscopy of Water Adsorption on Nanoislands of Surfaceâ€Anchored Metalâ€Organic Frameworks. Angewandte Chemie, 2021, 133, 1644-1648.	2.0	5
41	Crowded catalyst, better catalyst. National Science Review, 2021, 8, nwab141.	9.5	3
42	Methane Catalytic Combustion over Hierarchical Pd@CeO2/Si-Al2O3: Effect of the Presence of Water. ChemCatChem, 2015, 7, 1978-1978.	3.7	2
43	Nanoscale Chemical Imaging in Zeolite Catalysts by Atom Probe Tomography. Microscopy and Microanalysis, 2021, 27, 984-985.	0.4	0