RaÃºl PÃ©rez HernÃ¡ndez

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Synthesis of magnetite (Fe3O4) nanoparticles without surfactants at room temperature. Materials Letters, 2007, 61, 4447-4451.	1.3	228
2	Synthesis and characterization of bimetallic Cuâ€"Ni/ZrO2 nanocatalysts: H2 production by oxidative steam reforming of methanol. International Journal of Hydrogen Energy, 2008, 33, 4569-4576.	3.8	95
3	CuOâ€"SiO2 Solâ€"Gel Catalysts: Characterization and Catalytic Properties for NO Reduction. Journal of Catalysis, 1999, 187, 1-14.	3.1	89
4	Improved photocatalytic activity of SnO2â€"ZnAl LDH prepared by one step Sn4+ incorporation. Applied Clay Science, 2016, 121-122, 127-136.	2.6	71
5	Efficient ZnSâ€"ZnO/ZnAl-LDH composite for H2 production by photocatalysis. Renewable Energy, 2020, 145, 124-132.	4.3	71
6	Microstructural study of asphaltene precipitated with methylene chloride and n-hexaneâ˜†. Fuel, 2003, 82, 977-982.	3.4	70
7	Effect of Cu loading on CeO2CeO2 for hydrogen production by oxidative steam reforming of methanol. International Journal of Hydrogen Energy, 2007, 32, 2888-2894.	3.8	67
8	Synthesis of mixed ZrO2â€"TiO2 oxides by solâ€"gel: Microstructural characterization and infrared spectroscopy studies of NOx. Journal of Molecular Catalysis A, 2008, 281, 200-206.	4.8	66
9	Photocatalytic activity of Ag/Al₂O₃â€"Gd₂O₃photocatalysts prepared by the solâ€"gel method in the degradation of 4-chlorophenol. RSC Advances, 2018, 8, 3108-3119.	1.7	61
10	Hydrogen production from oxidative steam reforming of methanol: Effect of the Cu and Ni impregnation on ZrO2 and their molecular simulation studies. International Journal of Hydrogen Energy, 2012, 37, 9018-9027.	3.8	58
11	Hydrogen production by oxidative steam reforming of methanol over Ni/CeO2â€"ZrO2 catalysts. International Journal of Hydrogen Energy, 2011, 36, 6601-6608.	3.8	56
12	Effect of the bimetallic Ni/Cu loading on the ZrO2 support for H2 production in the autothermal steam reforming of methanol. Catalysis Today, 2015, 250, 166-172.	2.2	53
13	Photocatalytic activity of Al2O3 improved by the addition of Ce3+/Ce4+ synthesized by the sol-gel method. Photodegradation of phenolic compounds using UV light. Fuel, 2017, 198, 11-21.	3.4	53
14	Nano-dimensional CeO2 nanorods for high Ni loading catalysts: H2 production by autothermal steam reforming of methanol reaction. Physical Chemistry Chemical Physics, 2013, 15, 12702.	1.3	50
15	Promotion effect of ZnO on the photocatalytic activity of coupled Al 2 O 3 -Nd 2 O 3 -ZnO composites prepared by the sol â˘' gel method in the degradation of phenol. Applied Catalysis B: Environmental, 2017, 208, 161-170.	10.8	44
16	NO reduction with CH4 or CO on Pt/ZrO2â€"CeO2 catalysts. Catalysis Today, 2005, 107-108, 175-180.	2.2	43
17	SCR of NO by CH4 on Pt/ZrO2â€"TiO2 solâ€"gel catalysts. Catalysis Today, 2005, 107-108, 149-156.	2.2	36
18	Hydrogen Production by Methanol Steam Reforming Over Pd/ZrO2â€"TiO2 Catalysts. Topics in Catalysis, 2011, 54, 572-578.	1.3	35

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19	One dimensional Pt/CeO2-NR catalysts for hydrogen production by steam reforming of methanol: Effect of Pt precursor. Catalysis Today, 2021, 360, 55-62.	2.2	29
20	Hydrogen Production by Steam Reforming of Methanol over a Ag/ZnO One Dimensional Catalyst. Advanced Materials Research, 0, 132, 205-219.	0.3	27
21	Hydrogen production by ultrasound assisted liquid laser ablation of Al, Mg and Al-Mg alloys in water. Applied Surface Science, 2019, 478, 189-196.	3.1	26
22	Influence of ZnS wurtziteâ€“sphalerite junctions on ZnOCore-ZnSShell-1D photocatalysts for H2 production. International Journal of Hydrogen Energy, 2019, 44, 10528-10540.	3.8	26
23	Ag nanoparticle effects on the thermoluminescent properties of monoclinic ZrO2exposed to ultraviolet and gamma radiation. Nanotechnology, 2007, 18, 265703.	1.3	22
24	Photocatalytic properties of boehmiteâ€“SnO2 composites for the degradation of phenol. Catalysis Today, 2016, 266, 82-89.	2.2	22
25	Reactivity of Pt/Ni supported on CeO2-nanorods on methanol steam reforming for H2 production: Steady state and DRIFTS studies. International Journal of Hydrogen Energy, 2021, 46, 25954-25964.	3.8	22
26	Synthetic gas production by dry reforming of methane over Ni/Al2O3â€“ZrO2 catalysts: High H2/CO ratio. International Journal of Hydrogen Energy, 2021, 46, 26224-26233.	3.8	22
27	A novel synthesis method to produce silver-doped CeO2 nanotubes based on Ag nanowire templates. Physical Chemistry Chemical Physics, 2011, 13, 16756.	1.3	21
28	Novel preparation of ZnS from Zn5(CO3)2(OH)6 by the hydro- or solvothermal method for H2 production. Catalysis Today, 2017, 287, 91-98.	2.2	21
29	Evaluation of the novel Pd CeO2-NR electrocatalyst supported on N-doped graphene for the Oxygen Reduction Reaction and its use in a Microbial Fuel Cell. Journal of Power Sources, 2019, 414, 103-114.	4.0	21
30	Support effects in Pt/TiO2â€“ZrO2 catalysts for NO reduction with CH4. Catalysis Today, 2002, 75, 385-391.	2.2	20
31	Ag nanowires as precursors to synthesize novel Ag-CeO2 nanotubes for H2 production by methanol reforming. Catalysis Today, 2013, 212, 225-231.	2.2	19
32	Efficient ZnO1-xSx composites from the Zn5(CO3)2(OH)6 precursor for the H2 production by photocatalysis. Renewable Energy, 2017, 113, 43-51.	4.3	17
33	Oxidative steam reforming of methanol for hydrogen production over Cu/CeO2-ZrO2catalysts. Energy Materials, 2008, 3, 152-157.	0.1	15
34	Hydrogen production by laser irradiation of metals in water under an ultrasonic field: A novel approach. International Journal of Hydrogen Energy, 2019, 44, 1579-1585.	3.8	15
35	Synthesis and characterization of ZnZr composites for the photocatalytic degradation of phenolic molecules: addition effect of ZrO₂ over hydrozincite Zn₅(OH)₆(CO₃)₂. Journal of Chemical Technology and Biotechnology, 2019, 94, 3428-3439.	1.6	15
36	Ptâ€“Ni/ZnO-rod catalysts for hydrogen production by steam reforming of methanol with oxygen. RSC Advances, 2020, 10, 41315-41323.	1.7	15

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37	Carbon dioxide capture utilizing zeolites synthesized with paper sludge and scrap-glass. Waste Management and Research, 2014, 32, 1219-1226.	2.2	14
38	Synthesis by the sol-gel method and characterization of Pt-promoted CuO/TiO2-ZrO2 catalysts for decomposition of 2-propanol. Catalysis Today, 2020, 349, 228-234.	2.2	14
39	Thermoluminescence response induced by UV radiation in Eu-doped zirconia nanopowders. Radiation Physics and Chemistry, 2014, 97, 118-125.	1.4	13
40	Enhanced catalytic activity of supported nanostructured Pd for the oxidation of organic molecules using Î³-Fe2O3 and Fe3O4 as co-electrocatalysts. International Journal of Hydrogen Energy, 2017, 42, 30301-30309.	3.8	13
41	High performance of the novel Pd CeO2-NR/C (cerium oxide nanorods) nanocatalyst for the oxidation of C1, C2 and C3 organic molecules for fuel cells applications. International Journal of Hydrogen Energy, 2019, 44, 12415-12420.	3.8	13
42	High Performance Pd-CeO _{2-NR} Supported on Graphene and N-Doped Graphene for the ORR and Its Application in a Microbial Fuel Cell. ECS Transactions, 2017, 77, 1359-1365.	0.3	12
43	Bifunctional Pdâ€CeO₂ Nanorods/C Nanocatalyst with High Electrochemical Stability and Catalytic Activity for the ORR and EOR in Alkaline Media. ChemistrySelect, 2020, 5, 14032-14040.	0.7	12
44	Synthesis of silicaâ€"silver wires by a solâ€"gel technique. Solid State Sciences, 2009, 11, 1722-1729.	1.5	9
45	Low-Temperature Synthesis and Growth Mechanism of ZnO Nanorods on Crystalline Si Substrate. Journal of Nano Research, 2011, 14, 69-82.	0.8	8
46	Preparation and characterization of the polycrystalline material Zn5(OH)6(CO3)2. Determination of the active species in oxide-reduction processes. Fuel, 2020, 281, 118471.	3.4	8
47	Photocatalytic Evaluation of the ZrO2:Zn5(OH)6(CO3)2 Composite for the H2 Production via Water Splitting. Topics in Catalysis, 2020, 63, 575-585.	1.3	8
48	Effect of the Oxygen Vacancies in CeO₂ by the Ce³⁺ Incorporation to Enhance the Photocatalytic Mineralization of Phenol. ChemistrySelect, 2021, 6, 3435-3443.	0.7	8
49	Influence of W6+ cations on the photocatalytic activity of Zn2+Al3+W6+ layered double hydroxides in the degradation of diclofenac. Fuel, 2020, 280, 118621.	3.4	7
50	ZnO thin films as propane sensors: Band structure models to explicate the dependence between the structural and morphological properties on gas sensitivity. Journal of Physics and Chemistry of Solids, 2017, 106, 16-28.	1.9	6
51	A theoretical catalytic mechanism for methanol reforming in CeO2 vs Ni/CeO2 by energy transition states profiles. Catalysis Today, 2022, 392-393, 146-153.	2.2	6
52	Catalytic Steam Reforming of Methanol to Produce Hydrogen on Supported Metal Catalysts. , 2012, , .		5
53	Ag nanowires as precursors to synthesize Agâ€"ZnO nanostructured brushes. RSC Advances, 2015, 5, 42568-42571.	1.7	5
54	Highly Active Pd-CeO_{2-NR}/C (Cerium Oxide Nanorods) Bifunctional Nanocatalysts with Remarkable Stability for the Ethanol Oxidation and Oxygen Reduction Reactions in Alkaline Media. ECS Transactions, 2019, 92, 671-678.	0.3	5

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55	Methanolysis of Simarouba Glauca DC oil with hydrotalcite-type ZnCuAl catalysts. Catalysis Today, 2020, 349, 48-56.	2.2	5
56	Catalytic Aspects of Pt/Pd Supported on ZnO Rods for Hydrogen Production in Methanol Steam Reforming. Topics in Catalysis, 2022, 65, 1556-1569.	1.3	5
57	Catalytic activity of poly[(methacrylato)aluminum(III)] obtained at different gamma-radiation doses. Radiation Physics and Chemistry, 2011, 80, 1151-1157.	1.4	4
58	Hydrogen Production by Steam Reforming of Methanol over New Ag-Au(1-D)-CeO2 Catalyst. Materials Research Society Symposia Proceedings, 2010, 1279, 1.	0.1	1
59	Comparison of the sorption behavior of 99Mo by Ti-, Si-, Ti-Si-xerogels and commercial sorbents. Journal of Radioanalytical and Nuclear Chemistry, 2021, 328, 679-690.	0.7	1
60	ZrO2 Nanopowders Doped with Eu: SEM, XRD and UV Spectroscopy Studies. Materials Research Society Symposia Proceedings, 2012, 1371, 39.	0.1	0
61	Catalytic Ni/CeO2 Nanorods and Ag/CeO2 Nanotubes for Hydrogen Production by Methanol Reforming. , 2019, , 167-190.		0