

# Raúl Páez Hernández

## List of Publications by Year in descending order

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61  
papers

1,803  
citations

304743

22  
h-index

276875

41  
g-index

61  
all docs

61  
docs citations

61  
times ranked

2447  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis of magnetite (Fe <sub>3</sub> O <sub>4</sub> ) nanoparticles without surfactants at room temperature. <i>Materials Letters</i> , 2007, 61, 4447-4451.	2.6	228
2	Synthesis and characterization of bimetallic Cu-Ni/ZrO <sub>2</sub> nanocatalysts: H <sub>2</sub> production by oxidative steam reforming of methanol. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 4569-4576.	7.1	95
3	Cu-SiO <sub>2</sub> Sol-Gel Catalysts: Characterization and Catalytic Properties for NO Reduction. <i>Journal of Catalysis</i> , 1999, 187, 1-14.	6.2	89
4	Improved photocatalytic activity of SnO <sub>2</sub> -ZnAl LDH prepared by one step Sn <sup>4+</sup> incorporation. <i>Applied Clay Science</i> , 2016, 121-122, 127-136.	5.2	71
5	Efficient Zn-Sn-ZnO/ZnAl-LDH composite for H <sub>2</sub> production by photocatalysis. <i>Renewable Energy</i> , 2020, 145, 124-132.	8.9	71
6	Microstructural study of asphaltene precipitated with methylene chloride and n-hexane. <i>Fuel</i> , 2003, 82, 977-982.	6.4	70
7	Effect of Cu loading on CeO <sub>2</sub> /CeO <sub>2</sub> for hydrogen production by oxidative steam reforming of methanol. <i>International Journal of Hydrogen Energy</i> , 2007, 32, 2888-2894.	7.1	67
8	Synthesis of mixed ZrO <sub>2</sub> -TiO <sub>2</sub> oxides by sol-gel: Microstructural characterization and infrared spectroscopy studies of NO <sub>x</sub> . <i>Journal of Molecular Catalysis A</i> , 2008, 281, 200-206.	4.8	66
9	Photocatalytic activity of Ag/Al <sub>2</sub> O <sub>3</sub> -Gd <sub>2</sub> O <sub>3</sub> photocatalysts prepared by the sol-gel method in the degradation of 4-chlorophenol. <i>RSC Advances</i> , 2018, 8, 3108-3119.	3.6	61
10	Hydrogen production from oxidative steam reforming of methanol: Effect of the Cu and Ni impregnation on ZrO <sub>2</sub> and their molecular simulation studies. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 9018-9027.	7.1	58
11	Hydrogen production by oxidative steam reforming of methanol over Ni/CeO <sub>2</sub> -ZrO <sub>2</sub> catalysts. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 6601-6608.	7.1	56
12	Effect of the bimetallic Ni/Cu loading on the ZrO <sub>2</sub> support for H <sub>2</sub> production in the autothermal steam reforming of methanol. <i>Catalysis Today</i> , 2015, 250, 166-172.	4.4	53
13	Photocatalytic activity of Al <sub>2</sub> O <sub>3</sub> improved by the addition of Ce <sup>3+</sup> /Ce <sup>4+</sup> synthesized by the sol-gel method. Photodegradation of phenolic compounds using UV light. <i>Fuel</i> , 2017, 198, 11-21.	6.4	53
14	Nano-dimensional CeO <sub>2</sub> nanorods for high Ni loading catalysts: H <sub>2</sub> production by autothermal steam reforming of methanol reaction. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 12702.	2.8	50
15	Promotion effect of ZnO on the photocatalytic activity of coupled Al <sub>2</sub> O <sub>3</sub> -Nd <sub>2</sub> O <sub>3</sub> -ZnO composites prepared by the sol-gel method in the degradation of phenol. <i>Applied Catalysis B: Environmental</i> , 2017, 208, 161-170.	20.2	44
16	NO reduction with CH <sub>4</sub> or CO on Pt/ZrO <sub>2</sub> -CeO <sub>2</sub> catalysts. <i>Catalysis Today</i> , 2005, 107-108, 175-180.	4.4	43
17	SCR of NO by CH <sub>4</sub> on Pt/ZrO <sub>2</sub> -TiO <sub>2</sub> sol-gel catalysts. <i>Catalysis Today</i> , 2005, 107-108, 149-156.	4.4	36
18	Hydrogen Production by Methanol Steam Reforming Over Pd/ZrO <sub>2</sub> -TiO <sub>2</sub> Catalysts. <i>Topics in Catalysis</i> , 2011, 54, 572-578.	2.8	35

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19	One dimensional Pt/CeO <sub>2</sub> -NR catalysts for hydrogen production by steam reforming of methanol: Effect of Pt precursor. <i>Catalysis Today</i> , 2021, 360, 55-62.	4.4	29
20	Hydrogen Production by Steam Reforming of Methanol over a Ag/ZnO One Dimensional Catalyst. <i>Advanced Materials Research</i> , 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. <i>Applied Surface Science</i> , 2019, 478, 189-196.	6.1	26
22	Influence of ZnS wurtzite-sphalerite junctions on ZnOCore-ZnSShell-1D photocatalysts for H <sub>2</sub> production. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 10528-10540.	7.1	26
23	Ag nanoparticle effects on the thermoluminescent properties of monoclinic ZrO <sub>2</sub> exposed to ultraviolet and gamma radiation. <i>Nanotechnology</i> , 2007, 18, 265703.	2.6	22
24	Photocatalytic properties of boehmite-SnO <sub>2</sub> composites for the degradation of phenol. <i>Catalysis Today</i> , 2016, 266, 82-89.	4.4	22
25	Reactivity of Pt/Ni supported on CeO <sub>2</sub> -nanorods on methanol steam reforming for H <sub>2</sub> production: Steady state and DRIFTS studies. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 25954-25964.	7.1	22
26	Synthetic gas production by dry reforming of methane over Ni/Al <sub>2</sub> O <sub>3</sub> -ZrO <sub>2</sub> catalysts: High H <sub>2</sub> /CO ratio. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 26224-26233.	7.1	22
27	A novel synthesis method to produce silver-doped CeO <sub>2</sub> nanotubes based on Ag nanowire templates. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 16756.	2.8	21
28	Novel preparation of ZnS from Zn <sub>5</sub> (CO <sub>3</sub> ) <sub>2</sub> (OH) <sub>6</sub> by the hydro- or solvothermal method for H <sub>2</sub> production. <i>Catalysis Today</i> , 2017, 287, 91-98.	4.4	21
29	Evaluation of the novel Pd CeO <sub>2</sub> -NR electrocatalyst supported on N-doped graphene for the Oxygen Reduction Reaction and its use in a Microbial Fuel Cell. <i>Journal of Power Sources</i> , 2019, 414, 103-114.	7.8	21
30	Support effects in Pt/TiO <sub>2</sub> -ZrO <sub>2</sub> catalysts for NO reduction with CH <sub>4</sub> . <i>Catalysis Today</i> , 2002, 75, 385-391.	4.4	20
31	Ag nanowires as precursors to synthesize novel Ag-CeO <sub>2</sub> nanotubes for H <sub>2</sub> production by methanol reforming. <i>Catalysis Today</i> , 2013, 212, 225-231.	4.4	19
32	Efficient ZnO <sub>1-x</sub> S <sub>x</sub> composites from the Zn <sub>5</sub> (CO <sub>3</sub> ) <sub>2</sub> (OH) <sub>6</sub> precursor for the H <sub>2</sub> production by photocatalysis. <i>Renewable Energy</i> , 2017, 113, 43-51.	8.9	17
33	Oxidative steam reforming of methanol for hydrogen production over Cu/CeO <sub>2</sub> -ZrO <sub>2</sub> catalysts. <i>Energy Materials</i> , 2008, 3, 152-157.	0.1	15
34	Hydrogen production by laser irradiation of metals in water under an ultrasonic field: A novel approach. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 1579-1585.	7.1	15
35	Synthesis and characterization of ZnZr composites for the photocatalytic degradation of phenolic molecules: addition effect of ZrO <sub>2</sub> over hydrozincite Zn <sub>5</sub> (OH) <sub>6</sub> (CO <sub>3</sub> ) <sub>2</sub> . <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 3428-3439.	3.2	15
36	Pt-Ni/ZnO-rod catalysts for hydrogen production by steam reforming of methanol with oxygen. <i>RSC Advances</i> , 2020, 10, 41315-41323.	3.6	15

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37	Carbon dioxide capture utilizing zeolites synthesized with paper sludge and scrap-glass. <i>Waste Management and Research</i> , 2014, 32, 1219-1226.	3.9	14
38	Synthesis by the sol-gel method and characterization of Pt-promoted CuO/TiO <sub>2</sub> -ZrO <sub>2</sub> catalysts for decomposition of 2-propanol. <i>Catalysis Today</i> , 2020, 349, 228-234.	4.4	14
39	Thermoluminescence response induced by UV radiation in Eu-doped zirconia nanopowders. <i>Radiation Physics and Chemistry</i> , 2014, 97, 118-125.	2.8	13
40	Enhanced catalytic activity of supported nanostructured Pd for the oxidation of organic molecules using <sup>13</sup> Fe <sub>2</sub> O <sub>3</sub> and Fe <sub>3</sub> O <sub>4</sub> as co-electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30301-30309.	7.1	13
41	High performance of the novel Pd CeO <sub>2</sub> -NR/C (cerium oxide nanorods) nanocatalyst for the oxidation of C <sub>1</sub> , C <sub>2</sub> and C <sub>3</sub> organic molecules for fuel cells applications. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 12415-12420.	7.1	13
42	High Performance Pd-CeO <sub>2</sub> -NR Supported on Graphene and N-Doped Graphene for the ORR and Its Application in a Microbial Fuel Cell. <i>ECS Transactions</i> , 2017, 77, 1359-1365.	0.5	12
43	Bifunctional Pd-CeO <sub>2</sub> Nanorods/C Nanocatalyst with High Electrochemical Stability and Catalytic Activity for the ORR and EOR in Alkaline Media. <i>ChemistrySelect</i> , 2020, 5, 14032-14040.	1.5	12
44	Synthesis of silica-silver wires by a sol-gel technique. <i>Solid State Sciences</i> , 2009, 11, 1722-1729.	3.2	9
45	Low-Temperature Synthesis and Growth Mechanism of ZnO Nanorods on Crystalline Si Substrate. <i>Journal of Nano Research</i> , 2011, 14, 69-82.	0.8	8
46	Preparation and characterization of the polycrystalline material Zn <sub>5</sub> (OH) <sub>6</sub> (CO <sub>3</sub> ) <sub>2</sub> . Determination of the active species in oxide-reduction processes. <i>Fuel</i> , 2020, 281, 118471.	6.4	8
47	Photocatalytic Evaluation of the ZrO <sub>2</sub> :Zn <sub>5</sub> (OH) <sub>6</sub> (CO <sub>3</sub> ) <sub>2</sub> Composite for the H <sub>2</sub> Production via Water Splitting. <i>Topics in Catalysis</i> , 2020, 63, 575-585.	2.8	8
48	Effect of the Oxygen Vacancies in CeO <sub>2</sub> by the Ce <sup>3+</sup> Incorporation to Enhance the Photocatalytic Mineralization of Phenol. <i>ChemistrySelect</i> , 2021, 6, 3435-3443.	1.5	8
49	Influence of W <sup>6+</sup> cations on the photocatalytic activity of Zn <sub>2</sub> +Al <sub>3</sub> +W <sup>6+</sup> layered double hydroxides in the degradation of diclofenac. <i>Fuel</i> , 2020, 280, 118621.	6.4	7
50	ZnO thin films as propane sensors: Band structure models to explicate the dependence between the structural and morphological properties on gas sensitivity. <i>Journal of Physics and Chemistry of Solids</i> , 2017, 106, 16-28.	4.0	6
51	A theoretical catalytic mechanism for methanol reforming in CeO <sub>2</sub> vs Ni/CeO <sub>2</sub> by energy transition states profiles. <i>Catalysis Today</i> , 2022, 392-393, 146-153.	4.4	6
52	Catalytic Steam Reforming of Methanol to Produce Hydrogen on Supported Metal Catalysts. , 2012, , .		5
53	Ag nanowires as precursors to synthesize Ag-ZnO nanostructured brushes. <i>RSC Advances</i> , 2015, 5, 42568-42571.	3.6	5
54	Highly Active Pd-CeO <sub>2</sub> -NR/C (Cerium Oxide Nanorods) Bifunctional Nanocatalysts with Remarkable Stability for the Ethanol Oxidation and Oxygen Reduction Reactions in Alkaline Media. <i>ECS Transactions</i> , 2019, 92, 671-678.	0.5	5

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55	Methanolysis of Simarouba Glauca DC oil with hydrotalcite-type ZnCuAl catalysts. <i>Catalysis Today</i> , 2020, 349, 48-56.	4.4	5
56	Catalytic Aspects of Pt/Pd Supported on ZnO Rods for Hydrogen Production in Methanol Steam Reforming. <i>Topics in Catalysis</i> , 2022, 65, 1556-1569.	2.8	5
57	Catalytic activity of poly[(methacrylate)aluminum(III)] obtained at different gamma-radiation doses. <i>Radiation Physics and Chemistry</i> , 2011, 80, 1151-1157.	2.8	4
58	Hydrogen Production by Steam Reforming of Methanol over New Ag-Au(1-D)-CeO <sub>2</sub> Catalyst. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1279, 1.	0.1	1
59	Comparison of the sorption behavior of <sup>99</sup> Mo by Ti-, Si-, Ti-Si-xerogels and commercial sorbents. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2021, 328, 679-690.	1.5	1
60	ZrO <sub>2</sub> Nanopowders Doped with Eu: SEM, XRD and UV Spectroscopy Studies. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1371, 39.	0.1	0
61	Catalytic Ni/CeO <sub>2</sub> Nanorods and Ag/CeO <sub>2</sub> Nanotubes for Hydrogen Production by Methanol Reforming. , 2019, , 167-190.		0