

# Hilario Vidal

## List of Publications by Year in descending order

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65  
papers

2,413  
citations

218677

26  
h-index

214800

47  
g-index

70  
all docs

70  
docs citations

70  
times ranked

2498  
citing authors

#	ARTICLE	IF	CITATIONS
1	Redox behavior of CeO <sub>2</sub> –ZrO <sub>2</sub> mixed oxides. Applied Catalysis B: Environmental, 2000, 27, 49-63.	20.2	220
2	Surface and structural characterization of Ce <sub>x</sub> Zr <sub>1-x</sub> O <sub>2</sub> CEZIRENCAT mixed oxides as potential three-way catalyst promoters. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 3717-3726.	1.7	193
3	Modification of the oxygen storage capacity of CeO <sub>2</sub> –ZrO <sub>2</sub> mixed oxides after redox cycling aging. Catalysis Today, 2000, 59, 373-386.	4.4	190
4	Reduction of High Surface Area CeO <sub>2</sub> –ZrO <sub>2</sub> Mixed Oxides. Journal of Physical Chemistry B, 2000, 104, 9186-9194.	2.6	150
5	Redox behavior of CeO <sub>2</sub> –ZrO <sub>2</sub> mixed oxides. Applied Catalysis B: Environmental, 2001, 30, 75-85.	20.2	106
6	Extension of preparation methods employed with ceramic materials to carbon honeycomb monoliths. Carbon, 2004, 42, 3251-3254.	10.3	90
7	Characterization of La <sub>2</sub> O <sub>3</sub> /SiO <sub>2</sub> Mixed Oxide Catalyst Supports. Journal of Catalysis, 1999, 183, 53-62.	6.2	67
8	A novel CoO <sub>x</sub> /La-modified-CeO <sub>2</sub> formulation for powdered and washcoated onto cordierite honeycomb catalysts with application in VOCs oxidation. Applied Catalysis B: Environmental, 2014, 144, 425-434.	20.2	67
9	Lanthanide salts as alternative corrosion inhibitors. Journal of Alloys and Compounds, 1995, 225, 638-641.	5.5	57
10	Influence of high temperature treatments under net oxidizing and reducing conditions on the oxygen storage and buffering properties of a Ce <sub>0.68</sub> Zr <sub>0.32</sub> O <sub>2</sub> mixed oxide. Catalysis Today, 1999, 54, 93-100.	4.4	52
11	Original carbon-based honeycomb monoliths as support of Cu or Mn catalysts for low-temperature SCR of NO: Effects of preparation variables. Applied Catalysis A: General, 2008, 342, 150-158.	4.3	49
12	Effect of Mild Re-oxidation Treatments with CO <sub>2</sub> on the Chemisorption Capability of a Pt/CeO <sub>2</sub> Catalyst Reduced at 500 °C. Journal of Catalysis, 2001, 200, 411-415.	6.2	48
13	Au-TiO <sub>2</sub> /SiO <sub>2</sub> photocatalysts with NO <sub>x</sub> depolluting activity: Influence of gold particle size and loading. Chemical Engineering Journal, 2019, 368, 417-427.	12.7	48
14	DoE (Design of Experiments) Assisted Allylic Hydroxylation of Enones Catalysed by a Copper–Aluminium Mixed Oxide. European Journal of Organic Chemistry, 2013, 2013, 8307-8314.	2.4	47
15	One-pot synthesis of Au/N-TiO <sub>2</sub> photocatalysts for environmental applications: Enhancement of dyes and NO <sub>x</sub> photodegradation. Powder Technology, 2019, 355, 793-807.	4.2	45
16	Electrochemical study of aluminium corrosion in acid chloride solutions. Electrochimica Acta, 1991, 36, 179-187.	5.2	43
17	Non-cordierite clay-based structured materials for environmental applications. Journal of Hazardous Materials, 2010, 181, 9-18.	12.4	42
18	Lead removal from aqueous solution by means of integral natural clays honeycomb monoliths. Journal of Hazardous Materials, 2019, 365, 519-530.	12.4	41

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19	TAP study of toluene total oxidation over a $\text{Co}_3\text{O}_4/\text{La-CeO}_2$ catalyst with an application as a washcoat of cordierite honeycomb monoliths. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 11447-11455.	2.8	40
20	Insights on the combustion mechanism of ethanol and n-hexane in honeycomb monolithic type catalysts: Influence of the amount and nature of Mn-Cu mixed oxide. <i>Fuel</i> , 2017, 208, 637-646.	6.4	39
21	XPS analysis and microstructural characterization of a Ce/Tb mixed oxide supported on a lanthana-modified transition alumina. <i>Surface and Interface Analysis</i> , 1999, 27, 941-949.	1.8	33
22	Monolithic honeycomb design applied to carbon materials for catalytic methane decomposition. <i>Applied Catalysis A: General</i> , 2013, 458, 21-27.	4.3	32
23	Au-TiO <sub>2</sub> /SiO <sub>2</sub> photocatalysts for building materials: Self-cleaning and de-polluting performance. <i>Building and Environment</i> , 2019, 164, 106347.	6.9	31
24	Role of the Wild Carob as Biosorbent and as Precursor of a New High-Surface-Area Activated Carbon for the Adsorption of Methylene Blue. <i>Arabian Journal for Science and Engineering</i> , 2021, 46, 325-341.	3.0	31
25	3D-printing of metallic honeycomb monoliths as a doorway to a new generation of catalytic devices: the Ni-based catalysts in methane dry reforming showcase. <i>Catalysis Communications</i> , 2021, 148, 106181.	3.3	28
26	Originally prepared carbon-based honeycomb monoliths with potential application as VOCs adsorbents. <i>Comptes Rendus Chimie</i> , 2006, 9, 1215-1220.	0.5	27
27	Use of Au/N-TiO <sub>2</sub> /SiO <sub>2</sub> photocatalysts in building materials with NO depolluting activity. <i>Journal of Cleaner Production</i> , 2020, 243, 118633.	9.3	27
28	Investigation by Means of H <sub>2</sub> Adsorption, Diffraction, and Electron Microscopy Techniques of a Cerium/Terbium Mixed Oxide Supported on a Lanthana-Modified Alumina. <i>Chemistry of Materials</i> , 2002, 14, 844-850.	6.7	26
29	Effectiveness of acid-treated agricultural stones used in biopurification systems to avoid pesticide contamination of water resources caused by direct losses: Part I. Equilibrium experiments and kinetics. <i>Bioresource Technology</i> , 2010, 101, 5084-5091.	9.6	26
30	Comparative study of the catalytic performance and final surface structure of Co <sub>3</sub> O <sub>4</sub> /La-CeO <sub>2</sub> washcoated ceramic and metallic honeycomb monoliths. <i>Catalysis Today</i> , 2015, 253, 190-198.	4.4	26
31	Influence of the activation conditions on the elimination of residual impurities on ceria-zirconia mixed oxides. <i>Journal De Chimie Physique Et De Physico-Chimie Biologique</i> , 1998, 95, 2048-2060.	0.2	25
32	Catalytic behavior of lanthana promoted Rh/SiO <sub>2</sub> catalysts: influence of the preparation procedure. <i>Applied Catalysis A: General</i> , 2001, 208, 111-123.	4.3	24
33	Easy route to activate clay honeycomb monoliths for environmental applications. <i>Applied Clay Science</i> , 2010, 47, 392-399.	5.2	24
34	Use of pillared clays in the preparation of washcoated clay honeycomb monoliths as support of manganese catalysts for the total oxidation of VOCs. <i>Catalysis Today</i> , 2017, 296, 84-94.	4.4	24
35	Integration of Adsorption and Photocatalytic Degradation of Methylene Blue Using $\text{TiO}_2$ Supported on Granular Activated Carbon. <i>Arabian Journal for Science and Engineering</i> , 2017, 42, 1475-1486.	3.0	24
36	Easy extrusion of honeycomb-shaped monoliths using Moroccan natural clays and investigation of their dynamic adsorptive behavior towards VOCs. <i>Journal of Hazardous Materials</i> , 2009, 170, 87-95.	12.4	23

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37	Low temperature prepared copper-iron mixed oxides for the selective CO oxidation in the presence of hydrogen. <i>Applied Catalysis A: General</i> , 2018, 552, 58-69.	4.3	23
38	Physicochemical characterization and adsorptive properties of some Moroccan clay minerals extruded as lab-scale monoliths. <i>Applied Clay Science</i> , 2007, 36, 287-296.	5.2	22
39	Unveiling the source of activity of carbon integral honeycomb monoliths in the catalytic methane decomposition reaction. <i>Catalysis Today</i> , 2015, 249, 86-93.	4.4	20
40	Fundamental properties of a new cerium-based mixed oxide alternative as TWC component. <i>Studies in Surface Science and Catalysis</i> , 1998, , 611-618.	1.5	19
41	Influence of the preparation procedure on the chemical and microstructural properties of lanthana promoted Rh/SiO <sub>2</sub> catalysts. <i>Journal of Alloys and Compounds</i> , 1997, 250, 461-466.	5.5	18
42	Adding value to natural clays as low-cost adsorbents of methylene blue in polluted water through honeycomb monoliths manufacture. <i>SN Applied Sciences</i> , 2019, 1, 1.	2.9	18
43	In situ generation of Mn <sup>1+</sup> /Ce <sup>x</sup> system on cordierite monolithic supports for combustion of n-hexane. Effects on activity and stability. <i>Fuel</i> , 2020, 262, 116564.	6.4	18
44	Study of the Structural Modifications Induced by Reducing Treatments on a Pd/Ce <sub>0.8</sub> Tb <sub>0.2</sub> O <sub>2-x</sub> /La <sub>2</sub> O <sub>3</sub> ~Al <sub>2</sub> O <sub>3</sub> Catalyst by Means of X-ray Diffraction and Electron Microscopy Techniques. <i>Chemistry of Materials</i> , 2002, 14, 1405-1410.	6.7	17
45	Clay honeycomb monoliths for water purification: Modulating methylene blue adsorption through controlled activation via natural coal templating. <i>Applied Surface Science</i> , 2013, 277, 242-248.	6.1	14
46	Changing the adsorption capacity of coal-based honeycomb monoliths for pollutant removal from liquid streams by controlling their porosity. <i>Applied Surface Science</i> , 2010, 256, 7111-7117.	6.1	13
47	Simultaneous water gas shift and methanation reactions on Ru/Ce <sub>0.8</sub> Tb <sub>0.2</sub> O <sub>2</sub> ~x based catalysts. <i>Catalysis Today</i> , 2012, 180, 42-50.	4.4	13
48	Combined (S)TEM-FIB Insight into the Influence of the Preparation Method on the Final Surface Structure of a Co <sub>3</sub> O <sub>4</sub> /La-Modified-CeO <sub>2</sub> Washcoated Monolithic Catalyst. <i>Journal of Physical Chemistry C</i> , 2013, 117, 13028-13036.	3.1	13
49	Experimental evidences of the relationship between reducibility and micro- and nanostructure in commercial high surface area ceria. <i>Applied Catalysis A: General</i> , 2014, 479, 35-44.	4.3	13
50	Acyloxylation of 1,4-Dioxanes and 1,4-Dithianes Catalyzed by a Copper~Iron Mixed Oxide. <i>Journal of Organic Chemistry</i> , 2015, 80, 6814-6821.	3.2	13
51	Clay honeycomb monoliths as low cost CO <sub>2</sub> adsorbents. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017, 80, 415-423.	5.3	13
52	Honeycomb filters as an alternative to powders in the use of clays to remove cadmium from water. <i>Chemosphere</i> , 2020, 259, 127526.	8.2	10
53	Microstructure and catalytic properties of Rh and Ni dispersed on TiO <sub>2</sub> -SiO <sub>2</sub> aerogels. <i>Journal of Sol-Gel Science and Technology</i> , 1994, 2, 831-836.	2.4	9
54	Synthesis, characterization and performance of sol-gel prepared TiO <sub>2</sub> -SiO <sub>2</sub> catalysts and supports. <i>Studies in Surface Science and Catalysis</i> , 1995, , 461-470.	1.5	9

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55	Oxygen storage capacity improvement using CeO <sub>2</sub> -ZrO <sub>2</sub> mixed oxides in three way catalysts. <i>Studies in Surface Science and Catalysis</i> , 1999, , 257-262.	1.5	9
56	Optimized preparation of washcoated clay honeycomb monoliths as support of manganese catalysts for acetone total combustion. <i>Microporous and Mesoporous Materials</i> , 2021, 310, 110651.	4.4	9
57	Honeycomb monolithic design to enhance the performance of Ni-based catalysts for dry reforming of methane. <i>Catalysis Today</i> , 2022, 383, 226-235.	4.4	8
58	Nickel recycling through bioleaching of a Ni/Al <sub>2</sub> O <sub>3</sub> commercial catalyst. <i>Hydrometallurgy</i> , 2020, 195, 105350.	4.3	8
59	Ultrathin Washcoat and Very Low Loading Monolithic Catalyst with Outstanding Activity and Stability in Dry Reforming of Methane. <i>Nanomaterials</i> , 2020, 10, 445.	4.1	8
60	Catalytic behaviour and surface properties of supported lanthana. <i>Journal of Alloys and Compounds</i> , 1992, 180, 295-301.	5.5	7
61	Carbon integral honeycomb monoliths as support of copper catalysts in the Kharasch-Sosnovsky oxidation of cyclohexene. <i>Chemical Engineering Journal</i> , 2016, 290, 174-184.	12.7	7
62	Characterization of silica dispersed lanthana by CO <sub>2</sub> adsorption. <i>Journal of Alloys and Compounds</i> , 1994, 207-208, 201-205.	5.5	5
63	Chemical Reactivity of Binary Rare Earth Oxides. , 2004, , 9-55.		3
64	Copper-iron mixed oxide supported onto cordierite honeycomb as a heterogeneous catalyst in the Kharasch-Sosnovsky oxidation of cyclohexene. <i>Catalysis Today</i> , 2021, , .	4.4	3
65	Clay honeycomb monoliths for the simultaneous retention of lead and cadmium in water. <i>Environmental Technology and Innovation</i> , 2022, 27, 102765.	6.1	3