

Juan C Hernández-Garrido

List of Publications by Year in descending order

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84
papers

3,473
citations

147801

31
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57
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91
all docs

91
docs citations

91
times ranked

5243
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Selective semi-hydrogenation of internal alkynes catalyzed by Pd@CaCO ₃ clusters. <i>Journal of Catalysis</i> , 2022, 408, 43-55.	6.2	29
3	Low-Temperature Growth of Reactive Pyrochlore Nanostructures on Zirconia-Supported Ceria: Implications for Improved Catalytic Behavior. <i>ACS Applied Nano Materials</i> , 2022, 5, 6316-6326.	5.0	2
4	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
5	Soluble/MOF-Supported Palladium Single Atoms Catalyze the Ligand-, Additive-, and Solvent-Free Aerobic Oxidation of Benzyl Alcohols to Benzoic Acids. <i>Journal of the American Chemical Society</i> , 2021, 143, 2581-2592.	13.7	74
6	Regioirregular and catalytic Mizoroki-Heck reactions. <i>Nature Catalysis</i> , 2021, 4, 293-303.	34.4	42
7	In-depth structural and analytical study of the washcoating layer of a Mn-Cu monolithic catalyst using STEM-FIB, EDX and EELS. Insights into stability under working conditions. <i>Applied Surface Science</i> , 2021, 563, 150318.	6.1	2
8	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
9	The Role of Gold-Alumina Template in the Electrochemical Deposition of CeO ₂ Nanotubes. <i>Particle and Particle Systems Characterization</i> , 2019, 36, 1900168.	2.3	3
10	HAADF-STEM Electron Tomography in Catalysis Research. <i>Topics in Catalysis</i> , 2019, 62, 808-821.	2.8	16
11	C-doped anatase TiO ₂ : Adsorption kinetics and photocatalytic degradation of methylene blue and phenol, and correlations with DFT estimations. <i>Journal of Colloid and Interface Science</i> , 2019, 547, 14-29.	9.4	87
12	An atomically efficient, highly stable and redox active Ce _{0.5} Tb _{0.5} O _x (3% mol.)/MgO catalyst for total oxidation of methane. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8993-9003.	10.3	12
13	Sunlight photoactivity of rice husks-derived biogenic silica. <i>Catalysis Today</i> , 2019, 328, 125-135.	4.4	21
14	Base-Controlled Heck, Suzuki, and Sonogashira Reactions Catalyzed by Ligand-Free Platinum or Palladium Single Atom and Sub-Nanometer Clusters. <i>Journal of the American Chemical Society</i> , 2019, 141, 1928-1940.	13.7	107
15	Surface and redox characterization of new nanostructured ZrO ₂ @CeO ₂ systems with potential catalytic applications. <i>Surface and Interface Analysis</i> , 2018, 50, 1025-1029.	1.8	10
16	Synthesis of Densely Packaged, Ultrasmall Pt ⁰ Clusters within a Thioether-Functionalized MOF: Catalytic Activity in Industrial Reactions at Low Temperature. <i>Angewandte Chemie</i> , 2018, 130, 6294-6299.	2.0	22
17	Synthesis of Densely Packaged, Ultrasmall Pt ⁰ Clusters within a Thioether-Functionalized MOF: Catalytic Activity in Industrial Reactions at Low Temperature. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 6186-6191.	13.8	115
18	Multicationic Sr ₄ Mn ₃ O ₁₀ mesostructures: molten salt synthesis, analytical electron microscopy study and reactivity. <i>Materials Horizons</i> , 2018, 5, 480-485.	12.2	5

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19	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
20	Confined Pt ₁ ⁺ Water Clusters in a MOF Catalyze the Low-Temperature Water-Gas Shift Reaction with both CO ₂ Oxygen Atoms Coming from Water. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 17094-17099.	13.8	54
21	Exploring the Capability of HAADF-STEM Techniques to Characterize Graphene Distribution in Nanocomposites by Simulations. <i>Journal of Nanomaterials</i> , 2018, 2018, 1-12.	2.7	0
22	Confined Pt ₁ ⁺ Water Clusters in a MOF Catalyze the Low-Temperature Water-Gas Shift Reaction with both CO ₂ Oxygen Atoms Coming from Water. <i>Angewandte Chemie</i> , 2018, 130, 17340-17345.	2.0	4
23	Synthesis of Supported Planar Iron Oxide Nanoparticles and Their Chemo- and Stereoselectivity for Hydrogenation of Alkynes. <i>ACS Catalysis</i> , 2017, 7, 3721-3729.	11.2	63
24	Intra-particle chemical homogeneity determining the exchange coupling in palladium-iron nanoparticles. <i>Journal of Applied Physics</i> , 2017, 121, 084302.	2.5	0
25	Improving the Redox Response Stability of Ceria-Zirconia Nanocatalysts under Harsh Temperature Conditions. <i>Chemistry of Materials</i> , 2017, 29, 9340-9350.	6.7	21
26	Highly stable ceria-zirconia-yttria supported Ni catalysts for syngas production by CO ₂ reforming of methane. <i>Applied Surface Science</i> , 2017, 426, 864-873.	6.1	46
27	Critical Influence of Redox Pretreatments on the CO Oxidation Activity of BaFeO ₃ Perovskites: An in-Depth Atomic-Scale Analysis by Aberration-Corrected and in Situ Diffraction Techniques. <i>ACS Catalysis</i> , 2017, 7, 8653-8663.	11.2	13
28	Synthetic mimetics of the endogenous gastrointestinal nanomineral: Silent constructs that trap macromolecules for intracellular delivery. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2017, 13, 619-630.	3.3	17
29	A promoting effect of dilution of Pd sites due to gold surface segregation under reaction conditions on supported Pd-Au catalysts for the selective hydrogenation of 1,5-cyclooctadiene. <i>Catalysis Today</i> , 2016, 259, 213-221.	4.4	24
30	The impact of the chemical synthesis on the magnetic properties of intermetallic PdFe nanoparticles. <i>Journal of Nanoparticle Research</i> , 2015, 17, 1.	1.9	14
31	Comparative study of the catalytic performance and final surface structure of Co ₃ O ₄ /La-CeO ₂ washcoated ceramic and metallic honeycomb monoliths. <i>Catalysis Today</i> , 2015, 253, 190-198.	4.4	26
32	An endogenous nanomineral chaperones luminal antigen and peptidoglycan to intestinal immune cells. <i>Nature Nanotechnology</i> , 2015, 10, 361-369.	31.5	73
33	Direct formic acid fuel cells on Pd catalysts supported on hybrid TiO ₂ -C materials. <i>Applied Catalysis B: Environmental</i> , 2015, 163, 167-178.	20.2	43
34	A novel CoOx/La-modified-CeO ₂ formulation for powdered and washcoated onto cordierite honeycomb catalysts with application in VOCs oxidation. <i>Applied Catalysis B: Environmental</i> , 2014, 144, 425-434.	20.2	67
35	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
36	One pot synthesis of cyclohexanone oxime from nitrobenzene using a bifunctional catalyst. <i>Chemical Communications</i> , 2014, 50, 1645-1647.	4.1	21

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37	Exploring the benefits of electron tomography to characterize the precise morphology of core-shell Au@Ag nanoparticles and its implications on their plasmonic properties. <i>Nanoscale</i> , 2014, 6, 12696-12702.	5.6	16
38	Speciation-controlled incipient wetness impregnation: A rational synthetic approach to prepare sub-nanosized and highly active ceria-zirconia supported gold catalysts. <i>Journal of Catalysis</i> , 2014, 318, 119-127.	6.2	20
39	High-Resolution Spectroscopy of Europium-Doped Ceria as a Tool To Correlate Structure and Catalytic Activity. <i>Journal of Physical Chemistry C</i> , 2014, 118, 23349-23360.	3.1	12
40	The promotional effect of Sn-beta zeolites on platinum for the selective hydrogenation of α,β -unsaturated aldehydes. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 12048.	2.8	32
41	Rational design of nanostructured, noble metal free, ceria-zirconia catalysts with outstanding low temperature oxygen storage capacity. <i>Journal of Materials Chemistry A</i> , 2013, 1, 4836.	10.3	42
42	Self-assembly of one-pot synthesized $CexZr1-xO2 \cdot BaO \cdot nAl_2O_3$ nanocomposites promoted by site-selective doping of alumina with barium. <i>Journal of Materials Chemistry A</i> , 2013, 1, 3645.	10.3	12
43	2D and 3D characterization of a surfactant-synthesized $TiO_2 \cdot SiO_2$ mesoporous photocatalyst obtained at ambient temperature. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 2800.	2.8	26
44	Nanocrystalline carbon-TiO ₂ hybrid hollow spheres as possible electrodes for solar cells. <i>Carbon</i> , 2013, 53, 169-181.	10.3	32
45	Combined (S)TEM-FIB Insight into the Influence of the Preparation Method on the Final Surface Structure of a Co_3O_4/La -Modified- CeO_2 Washcoated Monolithic Catalyst. <i>Journal of Physical Chemistry C</i> , 2013, 117, 13028-13036.	3.1	13
46	Suppression and enhancement of the ferromagnetic response in Fe-doped ZnO nanoparticles by calcination of organic nitrogen, phosphorus, and sulfur compounds. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	1.9	3
47	Nanoconfinement of Ni clusters towards a high sintering resistance of steam methane reforming catalysts. <i>Catalysis Science and Technology</i> , 2012, 2, 2476.	4.1	20
48	Exceptional Activity for Methane Combustion over Modular $Pd@CeO_2$ Subunits on Functionalized Al_2O_3 . <i>Science</i> , 2012, 337, 713-717.	12.6	842
49	Biomass into chemicals: One-pot two- and three-step synthesis of quinoxalines from biomass-derived glycols and 1,2-dinitrobenzene derivatives using supported gold nanoparticles as catalysts. <i>Journal of Catalysis</i> , 2012, 292, 118-129.	6.2	70
50	$Pd(1\text{Åwt\%})/LaMn_0.4Fe_0.6O_3$ Catalysts Supported Over Silica SBA-15: Effect of Perovskite Loading and Support Morphology on Methane Oxidation Activity and SO ₂ Tolerance. <i>Topics in Catalysis</i> , 2012, 55, 782-791.	2.8	9
51	Unknown Aspects of Self-Assembly of PbS Microscale Superstructures. <i>ACS Nano</i> , 2012, 6, 3800-3812.	14.6	92
52	Morphological Study of Nanoparticle-Polymer Solar Cells Using High-Angle Annular Dark-Field Electron Tomography. <i>Nano Letters</i> , 2011, 11, 904-909.	9.1	76
53	Advanced Electron Microscopy Investigation of Ceria-Zirconia-Based Catalysts. <i>ChemCatChem</i> , 2011, 3, 1015-1027.	3.7	16
54	The location of gold nanoparticles on titania: A study by high resolution aberration-corrected electron microscopy and 3D electron tomography. <i>Catalysis Today</i> , 2011, 160, 165-169.	4.4	38

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55	Exceptionally Active Single-Site Nanocluster Multifunctional Catalysts for Cascade Reactions. <i>ChemCatChem</i> , 2010, 2, 402-406.	3.7	19
56	Electron tomography of III-V quantum dots using dark field 002 imaging conditions. <i>Journal of Microscopy</i> , 2010, 237, 148-154.	1.8	5
57	Using Highly Accurate 3D Nanometrology to Model the Optical Properties of Highly Irregular Nanoparticles: A Powerful Tool for Rational Design of Plasmonic Devices. <i>Nano Letters</i> , 2010, 10, 2097-2104.	9.1	54
58	Fabrication and characterization of TiN nanocomposite powders fabricated by DC arc-plasma method. <i>Journal of Alloys and Compounds</i> , 2010, 492, 685-690.	5.5	11
59	Nanostructural characterization and catalytic analysis of hybridized platinum/phthalocyanine nanocomposites. <i>Microscopy (Oxford, England)</i> , 2009, 58, 289-294.	1.5	5
60	Probing Solid Catalysts under Operating Conditions: Electrons or X-rays?. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 3904-3907.	13.8	39
61	3D Characterization of Gold Nanoparticles Supported on Heavy Metal Oxide Catalysts by HAADF-STEM Electron Tomography. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 5313-5315.	13.8	72
62	A General Strategy for the Design of New Solid Catalysts for Environmentally Benign Conversions. <i>Topics in Catalysis</i> , 2009, 52, 1630-1639.	2.8	31
63	TEM, HRTEM, electron holography and electron tomography studies of Pt^2+ and Pt^3 nanoparticles in Inconel 718 superalloy. <i>Journal of Microscopy</i> , 2009, 236, 149-157.	1.8	26
64	Fabrication and characterization of TiN-Ag nano-dice. <i>Micron</i> , 2009, 40, 308-312.	2.2	23
65	3D imaging of nanomaterials by discrete tomography. <i>Ultramicroscopy</i> , 2009, 109, 730-740.	1.9	255
66	Comparative study of the reducibility under H ₂ and CO of two thermally aged Ce _{0.62} Zr _{0.38} O ₂ mixed oxide samples. <i>Catalysis Today</i> , 2009, 141, 409-414.	4.4	27
67	Scanning Transmission Electron Microscopy Investigation of Differences in the High Temperature Redox Deactivation Behavior of CePrOx Particles Supported on Modified Alumina. <i>Chemistry of Materials</i> , 2009, 21, 1035-1045.	6.7	18
68	Nanoporous oxidic solids: the confluence of heterogeneous and homogeneous catalysis. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 2799.	2.8	63
69	Morphology of SBA-15-directed by association processes and surface energies. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 10973.	2.8	34
70	Developments in Techniques and Algorithms for Materials-Based Electron Tomography. <i>Microscopy and Microanalysis</i> , 2009, 15, 40-41.	0.4	0
71	Equilibrium and Kinetic Properties of Cu ^{II} Cyclophane Complexes: The Effect of Changes in the Macrocyclic Cavity Caused by Changes in the Substitution at the Aromatic Ring. <i>European Journal of Inorganic Chemistry</i> , 2008, 2008, 1497-1507.	2.0	6
72	First Stage of Thermal Aging under Oxidizing Conditions of a Ce _{0.62} Zr _{0.38} O ₂ Mixed Oxide with an Ordered Cationic Sublattice: A Chemical, Nanostructural, and Nanoanalytical Study. <i>Chemistry of Materials</i> , 2008, 20, 5107-5113.	6.7	37

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73	Some recent results on the correlation of nano-structural and redox properties in ceria-zirconia mixed oxides. <i>Journal of Alloys and Compounds</i> , 2008, 451, 521-525.	5.5	32
74	Preparation of Rhodium/Ce _x Pr _{1-x} O ₂ Catalysts: A Nanostructural and Nanoanalytical Investigation of Surface Modifications by Transmission and Scanning-Transmission Electron Microscopy. <i>Journal of Physical Chemistry C</i> , 2008, 112, 5900-5910.	3.1	11
75	3D characterization and metrology of nanostructures by electron tomography. <i>Microscopy and Microanalysis</i> , 2008, 14, 284-285.	0.4	1
76	Electron tomography using compositional-sensitive diffraction contrast for 3D characterization of self-assembled semiconductor quantum dots. <i>Microscopy and Microanalysis</i> , 2008, 14, 1052-1053.	0.4	0
77	Structural Surface Investigations of Cerium-Zirconium Mixed Oxide Nanocrystals with Enhanced Reducibility. <i>Journal of Physical Chemistry C</i> , 2007, 111, 9001-9004.	3.1	36
78	Size-Controlled Water-Soluble Ag Nanoparticles. <i>European Journal of Inorganic Chemistry</i> , 2007, 2007, 4823-4826.	2.0	41
79	Redox Behavior of Thermally Aged Ceria-Zirconia Mixed Oxides. Role of Their Surface and Bulk Structural Properties. <i>Chemistry of Materials</i> , 2006, 18, 2750-2757.	6.7	63
80	TEM Investigation of the Synthesis of Rh/CePrOx Catalysts. <i>Microscopy and Microanalysis</i> , 2006, 12, 760-761.	0.4	1
81	TEM (HREM) and STEM (HAADF/EDS) Study of the Metallic Dispersion in Supported Ruthenium Catalysts. <i>Microscopy and Microanalysis</i> , 2006, 12, 810-811.	0.4	0
82	Combined HREM and HAADF Scanning Transmission Electron Microscopy: A Powerful Tool for Investigating Structural Changes in Thermally Aged Ceria-Zirconia Mixed Oxides. <i>Chemistry of Materials</i> , 2005, 17, 4282-4285.	6.7	35
83	Stability and kinetics of the acid-promoted decomposition of Cu(II) complexes with hexaazacyclophanes: kinetic studies as a probe to detect changes in the coordination mode of the macrocycles. <i>Dalton Transactions</i> , 2004, , 94-103.	3.3	23
84	Hydrogen-ion driven molecular motions in Cu ²⁺ -complexes of a ditopic phenanthroline ligand. <i>Chemical Communications</i> , 2003, , 3032-3033.	4.1	15