

# Carlos LÃ³pez-Cartes

## List of Publications by Year in descending order

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46  
papers

3,698  
citations

201658

27  
h-index

233409

45  
g-index

47  
all docs

47  
docs citations

47  
times ranked

5267  
citing authors

#	ARTICLE	IF	CITATIONS
1	A direct in situ observation of water-enhanced proton conductivity of Eu-doped ZrO <sub>2</sub> : Effect on WGS reaction. <i>Applied Catalysis B: Environmental</i> , 2018, 231, 343-356.	20.2	18
2	Isosymmetric structural phase transition of the orthorhombic lanthanum gallate structure as a function of temperature determined by Rietveld analysis. <i>CrystEngComm</i> , 2018, 20, 5562-5569.	2.6	4
3	CO/H <sub>2</sub> adsorption on a Ru/Al <sub>2</sub> O <sub>3</sub> model catalyst for Fischer Tropsch: Effect of water concentration on the surface species. <i>Applied Catalysis B: Environmental</i> , 2018, 237, 986-995.	20.2	24
4	Gold catalysts screening in base-free aerobic oxidation of glucose to gluconic acid. <i>Catalysis Today</i> , 2017, 279, 148-154.	4.4	48
5	Synthesis and characterization of Rh/MnO <sub>2</sub> -CeO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> catalysts for CO-PrOx reaction. <i>Molecular Catalysis</i> , 2017, 440, 9-18.	2.0	14
6	Exploring the benefits of depositing hard TiN thin films by non-reactive magnetron sputtering. <i>Applied Surface Science</i> , 2013, 275, 121-126.	6.1	19
7	Analysis and application of the theories that rationalize the crystalline structures of fluorite-related rare earth oxides. <i>Catalysis Today</i> , 2012, 180, 161-166.	4.4	0
8	Microstructural study of the LiBH <sub>4</sub> -MgH <sub>2</sub> reactive hydride composite with and without Ti-isopropoxide additive. <i>Acta Materialia</i> , 2010, 58, 5683-5694.	7.9	71
9	Self-lubricating Ti-C-N nanocomposite coatings prepared by double magnetron sputtering. <i>Solid State Sciences</i> , 2009, 11, 660-670.	3.2	37
10	Thermal Stability and Oxidation Resistance of Nanocomposite TiC/a-C Protective Coatings. <i>Plasma Processes and Polymers</i> , 2009, 6, S462.	3.0	12
11	Thermal Evolution of WC/C Nanostructured Coatings by Raman and In Situ XRD Analysis. <i>Plasma Processes and Polymers</i> , 2009, 6, S444.	3.0	51
12	Influence of the microstructure on the mechanical and tribological behavior of TiC/a-C nanocomposite coatings. <i>Thin Solid Films</i> , 2009, 517, 1662-1671.	1.8	152
13	Tribological behaviour of titanium carbide/amorphous carbon nanocomposite coatings: From macro to the micro-scale. <i>Surface and Coatings Technology</i> , 2008, 202, 4011-4018.	4.8	99
14	Thiol-immobilized silver nanoparticle aggregate films for surface enhanced Raman scattering. <i>Journal of Raman Spectroscopy</i> , 2008, 39, 1162-1169.	2.5	49
15	Comparative performance of nanocomposite coatings of TiC or TiN dispersed in a-C matrixes. <i>Surface and Coatings Technology</i> , 2008, 203, 756-760.	4.8	23
16	Synthesis of Supported Single-Crystalline Organic Nanowires by Physical Vapor Deposition. <i>Chemistry of Materials</i> , 2008, 20, 7371-7373.	6.7	40
17	Synthesis of nanocrystalline MgH <sub>2</sub> powder by gas-phase condensation and in situ hydridation: TEM, XPS and XRD study. <i>Journal of Alloys and Compounds</i> , 2007, 434-435, 721-724.	5.5	28
18	Characterization of nanostructured Ti-C-N coatings produced by direct current magnetron sputtering. <i>Thin Solid Films</i> , 2007, 515, 3590-3596.	1.8	26

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19	Structural Characterization and Oxidative Dehydrogenation Activity of V <sub>2</sub> O <sub>5</sub> /Ce <sub>x</sub> Zr <sub>1-x</sub> O <sub>2</sub> /SiO <sub>2</sub> Catalysts. <i>Journal of Physical Chemistry B</i> , 2006, 110, 9140-9147.	2.6	63
20	Magnetic and microstructural analysis of palladium nanoparticles with different capping systems. <i>Physical Review B</i> , 2006, 73, .	3.2	63
21	Nb <sub>2</sub> O <sub>5</sub> Pathway Effect on Hydrogen Sorption in Mg. <i>Journal of Physical Chemistry B</i> , 2006, 110, 7845-7850.	2.6	111
22	Chemical and microstructural study of the oxygen passivation behaviour of nanocrystalline Mg and MgH <sub>2</sub> . <i>Applied Surface Science</i> , 2006, 252, 2334-2345.	6.1	128
23	A nanoscale approach for the characterization of amorphous carbon-based lubricant coatings. <i>Surface and Coatings Technology</i> , 2005, 200, 40-45.	4.8	14
24	Mechanical properties of nanocrystalline TiAlN coatings produced by DC magnetron sputtering. <i>Surface and Coatings Technology</i> , 2005, 200, 734-738.	4.8	15
25	Magnetron sputtering of Cr(Al)N coatings: Mechanical and tribological study. <i>Surface and Coatings Technology</i> , 2005, 200, 192-197.	4.8	90
26	Tailored synthesis of TiAlC nanocomposite tribological coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005, 23, 1732-1736.	2.1	33
27	Mechanical behavior and oxidation resistance of Cr(Al)N coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005, 23, 681-686.	2.1	63
28	Structural Characterization of CeO <sub>2</sub> /ZrO <sub>2</sub> /TiO <sub>2</sub> and V <sub>2</sub> O <sub>5</sub> /CeO <sub>2</sub> /ZrO <sub>2</sub> /TiO <sub>2</sub> Mixed Oxide Catalysts by XRD, Raman Spectroscopy, HREM, and Other Techniques. <i>Journal of Physical Chemistry B</i> , 2005, 109, 1781-1787.	2.6	37
29	Gold Nanoparticles with Different Capping Systems: An Electronic and Structural XAS Analysis. <i>Journal of Physical Chemistry B</i> , 2005, 109, 8761-8766.	2.6	68
30	Surface Stabilized Nanosized Ce <sub>x</sub> Zr <sub>1-x</sub> O <sub>2</sub> Solid Solutions over SiO <sub>2</sub> : Characterization by XRD, Raman, and HREM Techniques. <i>Journal of Physical Chemistry B</i> , 2005, 109, 13545-13552.	2.6	53
31	Atomic-scale imaging of carbon nanofibre growth. <i>Nature</i> , 2004, 427, 426-429.	27.8	1,318
32	Some contributions of electron microscopy to the characterisation of the strong metal-support interaction effect. <i>Catalysis Today</i> , 2003, 77, 385-406.	4.4	181
33	Ferromagnetism in fcc Twinned 2.4 nm Size Pd Nanoparticles. <i>Physical Review Letters</i> , 2003, 91, 237203.	7.8	172
34	In situ transmission electron microscopy investigation of Ce(IV) and Pr(IV) reducibility in a Rh (1%)/Ce <sub>0.8</sub> Pr <sub>0.2</sub> O <sub>2-x</sub> catalyst. <i>Chemical Communications</i> , 2003, , 644-645.	4.1	30
35	CHEMICAL AND NANOSTRUCTURAL ASPECTS OF THE PREPARATION AND CHARACTERISATION OF CERIA AND CERIA-BASED MIXED OXIDE-SUPPORTED METAL CATALYSTS. <i>Catalytic Science Series</i> , 2002, , 85-168.	0.0	25
36	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

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37	Metal Sintering in Rh/Al <sub>2</sub> O <sub>3</sub> Catalysts Followed by HREM, <sup>1</sup> H NMR, and H <sub>2</sub> Chemisorption. <i>Langmuir</i> , 2001, 17, 2720-2726.	3.5	15
38	Title is missing!. <i>Catalysis Letters</i> , 2001, 76, 131-137.	2.6	27
39	Structure of highly dispersed metals and oxides: exploring the capabilities of high-resolution electron microscopy. <i>Surface and Interface Analysis</i> , 2000, 29, 411-421.	1.8	35
40	Nanostructural evolution of high loading Rh/lanthana catalysts through the preparation and reduction steps. <i>Catalysis Today</i> , 1999, 52, 29-43.	4.4	19
41	Rare-earth oxides with fluorite-related structures: their systematic investigation using HREM images, image simulations and electron diffraction pattern simulations. <i>Ultramicroscopy</i> , 1999, 80, 19-39.	1.9	25
42	Structural characterisation of a VMgO catalyst used in the oxidative dehydrogenation of propane. <i>Catalysis Letters</i> , 1999, 57, 121-128.	2.6	42
43	Nanostructural Evolution under Reducing Conditions of a Pt/CeTbO <sub>x</sub> Catalyst: A New Alternative System as a TWC Component. <i>Chemistry of Materials</i> , 1999, 11, 3610-3619.	6.7	25
44	The interpretation of HREM images of supported metal catalysts using image simulation: profile view images. <i>Ultramicroscopy</i> , 1998, 72, 135-164.	1.9	154
45	Nanostructural Evolution of a Pt/CeO <sub>2</sub> Catalyst Reduced at Increasing Temperatures (473-1223 K): A HREM Study. <i>Journal of Catalysis</i> , 1997, 169, 510-515.	6.2	74
46	High-resolution electron microscopy investigation of metal-support interactions in Rh/TiO <sub>2</sub> . <i>Journal of the Chemical Society, Faraday Transactions</i> , 1996, 92, 2799-2809.	1.7	86