ConcepciÃ³n FernÃ¡ndez Lorenzo

List of Publications by Year
in descending order

69 papers	1,914 citations	257101 24 h-index	264894 42 g-index
71 all docs	71 docs citations	71 times ranked	3155 citing authors

#	Article	IF	Citations
1	New insights into organicâ€“inorganic hybrid perovskite CH₃NH₃PbI₃nanoparticles. An experimental and theoretical study of doping in Pb²⁺sites with Sn²⁺, Sr²⁺, Cd²⁺and Ca²⁺. Nanoscale, 2015, 7, 6216-6229.	2.8	216
2	A route for the synthesis of Cu-doped TiO2 nanoparticles with a very low band gap. Chemical Physics Letters, 2013, 571, 49-53.	1.2	121
3	Experimental and theoretical study of the electronic properties of Cu-doped anatase TiO2. Physical Chemistry Chemical Physics, 2014, 16, 3835.	1.3	111
4	Introducing â€œUCA-FUKUIâ€•software: reactivity-index calculations. Journal of Molecular Modeling, 2014, 20, 2492.	0.8	96
5	Sol-gel synthesis of SiO2î—¸P2O5 glasses. Journal of Non-Crystalline Solids, 1994, 176, 189-199.	1.5	88
6	Photovoltaic performance of nanostructured zinc oxide sensitised with xanthene dyes. Journal of Photochemistry and Photobiology A: Chemistry, 2008, 200, 364-370.	2.0	75
7	On the enhancement of heat transfer fluid for concentrating solar power using Cu and Ni nanofluids: An experimental and molecular dynamics study. Nano Energy, 2016, 27, 213-224.	8.2	66
8	Roman wall paintings characterization from Cripta del Museo and Alcazaba in MÃ©rida (Spain): chromatic, energy dispersive X-ray flurescence spectroscopic, X-ray diffraction and Fourier transform infrared spectroscopic analysis. Analytica Chimica Acta, 2001, 434, 331-345.	2.6	59
9	EXAFS, Raman and 31P NMR study of amorphous titanium phosphates. Journal of Non-Crystalline Solids, 1994, 170, 250-262.	1.5	54
10	Improving openâ€circuit voltage in DSSCs using Cuâ€doped TiO₂ as a semiconductor. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 378-385.	0.8	54
11	Ag-based nanofluidic system to enhance heat transfer fluids for concentrating solar power: Nano-level insights. Applied Energy, 2017, 194, 19-29.	5.1	54
12	Investigation of enhanced thermal properties in NiO-based nanofluids for concentrating solar power applications: A molecular dynamics and experimental analysis. Applied Energy, 2018, 211, 677-688.	5.1	51
13	Solvent-free ZnO dye-sensitised solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 1846-1852.	3.0	49
14	Dramatically enhanced thermal properties for TiO2-based nanofluids for being used as heat transfer fluids in concentrating solar power plants. Renewable Energy, 2018, 119, 809-819.	4.3	44
15	Spectroscopic analysis of roman wall paintings from Casa del Mitreo in Emerita Augusta, MÃ©rida, Spain. Talanta, 2003, 59, 1117-1139.	2.9	43
16	ZnO-based dye solar cell with pure ionic-liquid electrolyte and organic sensitizer: the relevance of the dyeâ€“oxide interaction in an ionic-liquid medium. Physical Chemistry Chemical Physics, 2011, 13, 207-213.	1.3	38
17	Revealing the role of Pb²⁺ in the stability of organicâ€“inorganic hybrid perovskite CH₃NH₃Pb_{1â^'x}Cd_xI₃: an experimental and theoretical study. Physical Chemistry Chemical Physics, 2015, 17, 23886-23896.	1.3	38
18	Direct Estimation of the Electron Diffusion Length in Dye-Sensitized Solar Cells. Journal of Physical Chemistry Letters, 2011, 2, 1045-1050.	2.1	34

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19	Preparation of Au nanoparticles in a non-polar medium: obtaining high-efficiency nanofluids for concentrating solar power. An experimental and theoretical perspective. Journal of Materials Chemistry A, 2017, 5, 12483-12497.	5.2	34
20	Thermo-selective Tm_xTi_{1â^'x}O_{2â^'x/2}nanoparticles: from Tm-doped anatase TiO₂to a rutile/pyrochlore Tm₂Ti₂O₇mixture. An experimental and theoretical study with a photocatalytic application. Nanoscale, 2014, 6, 12740-12757.	2.8	32
21	Electronic and Structural Properties of Highly Aluminum Ion Doped TiO₂ Nanoparticles: A Combined Experimental and Theoretical Study. ChemPhysChem, 2014, 15, 2267-2280.	1.0	29
22	Highly Al-doped TiO2 nanoparticles produced by Ball Mill Method: structural and electronic characterization. Materials Research Bulletin, 2015, 70, 704-711.	2.7	28
23	The impact of Pd on the light harvesting in hybrid organic-inorganic perovskite for solar cells. Nano Energy, 2017, 34, 141-154.	8.2	28
24	2D MoSe2-based nanofluids prepared by liquid phase exfoliation for heat transfer applications in concentrating solar power. Solar Energy Materials and Solar Cells, 2019, 200, 109972.	3.0	28
25	MoS₂ nanosheets vs. nanowires: preparation and a theoretical study of highly stable and efficient nanofluids for concentrating solar power. Journal of Materials Chemistry A, 2018, 6, 14919-14929.	5.2	24
26	A versatile computer-controlled high-resolution LBIC system. Progress in Photovoltaics: Research and Applications, 2004, 12, 283-295.	4.4	23
27	Spectroscopic Study of Egyptian Blue Mixed with Other Pigments. Helvetica Chimica Acta, 2003, 86, 29-49.	1.0	22
28	Visibleâ€Lightâ€Enhanced Photocatalytic Activity of Totally Inorganic Halideâ€Based Perovskite. ChemistrySelect, 2018, 3, 10226-10235.	0.7	21
29	Tm-doped TiO₂ and Tm₂Ti₂O₇ pyrochlore nanoparticles: enhancing the photocatalytic activity of rutile with a pyrochlore phase. Beilstein Journal of Nanotechnology, 2015, 6, 605-616.	1.5	20
30	Interface-inspired formulation and molecular-level perspectives on heat conduction and energy storage of nanofluids. Scientific Reports, 2019, 9, 7595.	1.6	20
31	Experimental and theoretical analysis of NiO nanofluids in presence of surfactants. Journal of Molecular Liquids, 2018, 252, 211-217.	2.3	17
32	A precision method for laser focusing on laser beam induced current experiments. Review of Scientific Instruments, 2002, 73, 3895-3900.	0.6	16
33	Towards the improvement of the global efficiency of concentrating solar power plants by using Pt-based nanofluids: The internal molecular structure effect. Applied Energy, 2018, 228, 2262-2274.	5.1	16
34	A methodology for improving laser beam induced current images of dye sensitized solar cells. Review of Scientific Instruments, 2009, 80, 063102.	0.6	15
35	Raman study of structural defects in SiO2 aerogels. Journal of Sol-Gel Science and Technology, 1995, 5, 167-172.	1.1	14
36	A Solvothermal Synthesis of TiO2 Nanoparticles in a Non-Polar Medium to Prepare Highly Stable Nanofluids with Improved Thermal Properties. Nanomaterials, 2018, 8, 816.	1.9	14

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37	Synthesis and Raman spectroscopy study of TiO₂ nanoparticles. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1970-1973.	0.8	13
38	Multi-technique analysis of high quality HPHT diamond crystal. Journal of Crystal Growth, 2012, 353, 115-119.	0.7	13
39	Study of thulium doping effect and enhancement of photocatalytic activity of rutile TiO2 nanoparticles. Materials Chemistry and Physics, 2015, 161, 175-184.	2.0	12
40	TiO2and pyrochlore Tm2Ti2O7based semiconductor as a photoelectrode for dye-sensitized solar cells. Journal Physics D: Applied Physics, 2015, 48, 145102.	1.3	12
41	Evaluation of decay photocurrent measurements in dye-sensitized solar cells: Application to laser beam-induced current technique. International Journal of Energy Research, 2012, 36, 193-203.	2.2	11
42	CdS semiconductor nanoparticles in silica sonogel matrices. Journal of Sol-Gel Science and Technology, 1994, 2, 689-694.	1.1	10
43	The role of Ge predeposition temperature in the MBE epitaxy of SiC on Ssilicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 341-346.	0.8	10
44	MoS2/Cu/TiO2 nanoparticles: synthesis, characterization and effect on photocatalytic decomposition of methylene blue in water under visible light. Water Science and Technology, 2018, 2017, 184-193.	1.2	10
45	Hydrogen passivation of boron acceptors in as-grown boron-doped CVD diamond epilayers. Diamond and Related Materials, 2010, 19, 904-907.	1.8	9
46	Convergent study of Ruâ€“ligand interactions through QTAIM, ELF, NBO molecular descriptors and TDDFT analysis of organometallic dyes. Molecular Physics, 2014, 112, 2063-2077.	0.8	9
47	High resolution laser beam induced current images under trichromatic laser radiation: Approximation to the solar irradiation. Review of Scientific Instruments, 2010, 81, 035108.	0.6	8
48	Micro-Raman Spectroscopy for the Determination of Local Temperature Increases in TiO2 Thin Films due to the Effect of Radiation. Applied Spectroscopy, 2016, 70, 1128-1136.	1.2	8
49	The Role of Surfactants in the Stability of NiO Nanofluids: An Experimental and DFT Study. ChemPhysChem, 2017, 18, 346-356.	1.0	8
50	Hybrid Perovskite, CH₃NH₃PbI₃, for Solar Applications: An Experimental and Theoretical Analysis of Substitution in A and B Sites. Journal of Nanomaterials, 2017, 2017, 1-10.	1.5	8
51	Cu(II)-Doped TiO₂ Nanoparticles as Photoelectrode in Dye-Sensitized Solar Cells: Improvement of Open-Circuit Voltage and a Light Scattering Effect. Science of Advanced Materials, 2014, 6, 473-482.	0.1	8
52	Revealing at the molecular level the role of the surfactant in the enhancement of the thermal properties of the gold nanofluid system used for concentrating solar power. Physical Chemistry Chemical Physics, 2018, 20, 2421-2430.	1.3	7
53	Surface thulium-doped TiO2 nanoparticles used as photoelectrodes in dye-sensitized solar cells: improving the open-circuit voltage. Applied Physics A: Materials Science and Processing, 2015, 121, 1261-1269.	1.1	6
54	Experimental and theoretical analysis of nanofluids based on high temperature-heat transfer fluid with enhanced thermal properties. EPJ Applied Physics, 2017, 78, 10901.	0.3	6

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55	Unraveling the role of the base fluid arrangement in metal-nanofluids used to enhance heat transfer in concentrating solar power plants. Journal of Molecular Liquids, 2018, 252, 271-278.	2.3	6
56	M(Al,Ni)-TiO₂-Based Photoanode for Photoelectrochemical Solar Cells. Zeitschrift Fur Physikalische Chemie, 2018, 232, 559-577.	1.4	6
57	On-line thermal dependence study of the main solar cell electrical photoconversion parameters using low thermal emission lamps. Review of Scientific Instruments, 2012, 83, 063105.	0.6	5
58	Incorporation of Al-(hydr)oxide species onto the surface of TiO 2 nanoparticles: Improving the open-circuit voltage in dye-sensitized solar cells. Thin Solid Films, 2015, 578, 167-173.	0.8	5
59	Intrinsic stability analysis of perovskite nanopowder with double and triple cation in a site, FAxMA(1-x)PbI3 and FAxCsyMA(1-x-y)PbI3. Materials Research Bulletin, 2019, 119, 110528.	2.7	5
60	Synthesis and Characterization of Gel-Derived, Highly Al-Doped TiO₂(Al<I>_x</I>Ti_{1â€“<I>x</I>}O<SUB Advanced Materials, 2014, 6, 2134-2145.	0.1	3
61	High resolution laser beam induced current focusing for photoactive surface characterization. Applied Surface Science, 2006, 253, 2179-2188.	3.1	4
62	Experimental analysis and computer simulation of a methodology for laser focusing in the solar cell characterization by laser beam induced current. Review of Scientific Instruments, 2012, 83, 043102.	0.6	4
63	Experimental Characterization and Theoretical Modelling of Ag and Au-Nanofluids: A Comparative Study of Their Thermal Properties. Journal of Nanofluids, 2018, 7, 1059-1068.	1.4	4
64	Raman intensities of cyclohexane in the gas phase. Journal of Raman Spectroscopy, 1989, 20, 291-296.	1.2	3
65	Pore Characterization Methodology by Means of Capillary Sorption Tests. Transport in Porous Media, 2011, 86, 333-351.	1.2	3
66	AplicaciÃ³n de tratamiento electroquÃmico a baja intensidad de corriente para la extracciÃ³n de cloruros en objetos arqueolÃ³gicos de hierro de procedencia subacuÃ¡tica. ObservaciÃ³n de la evoluciÃ³n de fases mineralÃ³gicas mediante XRD-<i>Rietveld</i>. Revista De Metalurgia, 2004, 40, 420-425.	0.1	2
67	Improving photoresponse characterization of dye-sensitized solar cells: application to the laser beam-induced current technique. Measurement Science and Technology, 2010, 21, 075702.	1.4	1
68	Application of correction algorithms for obtaining high-resolution LBIC maps of dye-sensitized solar cells. , 2006, 6197, 178.		0
69	A Study of Overheating of Thermostatically Controlled TiO₂ Thin Films by Using Raman Spectroscopy. ChemPhysChem, 2015, 16, 3949-3958.	1.0	0