JosÃ© Carlos PiÃ±ero Charlo

List of Publications by Year
in descending order

63	1,192	430874 18	414414 32
papers	citations	h-index	g-index

67	67	67	1850
all docs	docs citations	times ranked	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.	5.6	216
2	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.	16.0	66
3	Ag-based nanofluidic system to enhance heat transfer fluids for concentrating solar power: Nano-level insights. Applied Energy, 2017, 194, 19-29.	10.1	54
4	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.	10.1	51
5	Boron nitride nanotubes-based nanofluids with enhanced thermal properties for use as heat transfer fluids in solar thermal applications. Solar Energy Materials and Solar Cells, 2020, 205, 110266.	6.2	51
6	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.	8.9	44
7	Experimental analysis of water-based nanofluids using boron nitride nanotubes with improved thermal properties. Journal of Molecular Liquids, 2019, 277, 93-103.	4.9	42
8	Oxygen termination of homoepitaxial diamond surface by ozone and chemical methods: An experimental and theoretical perspective. Applied Surface Science, 2018, 433, 408-418.	6.1	40
9	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.	2.8	38
10	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.	10.3	34
11	Critical boron-doping levels for generation of dislocations in synthetic diamond. Applied Physics Letters, 2014, 105, .	3.3	28
12	The impact of Pd on the light harvesting in hybrid organic-inorganic perovskite for solar cells. Nano Energy, 2017, 34, 141-154.	16.0	28
13	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.	6.2	28
14	Electronic and physico-chemical properties of nanometric boron delta-doped diamond structures. Journal of Applied Physics, 2014, 116, 083702.	2.5	26
15	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.	10.3	24
16	Novel WS₂-Based Nanofluids for Concentrating Solar Power: Performance Characterization and Molecular-Level Insights. ACS Applied Materials & Interfaces, 2020, 12, 5793-5804.	8.0	22
17	Visibleâ€Lightâ€Enhanced Photocatalytic Activity of Totally Inorganic Halideâ€Based Perovskite. ChemistrySelect, 2018, 3, 10226-10235.	1.5	21
18	Educational Escape Rooms as a Tool for Horizontal Mathematization: Learning Process Evidence. Education Sciences, 2020, 10, 213.	2.6	21

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19	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.	2.8	20
20	Atomic composition of WC/ and Zr/O-terminated diamond Schottky interfaces close to ideality. Applied Surface Science, 2017, 395, 200-207.	6.1	20
21	WSe₂ Nanosheets Synthesized by a Solvothermal Process as Advanced Nanofluids for Thermal Solar Energy. ACS Sustainable Chemistry and Engineering, 2020, 8, 1627-1636.	6.7	20
22	MoS2-based nanofluids as heat transfer fluid in parabolic trough collector technology. Renewable Energy, 2022, 188, 721-730.	8.9	19
23	Potential barrier heights at metal on oxygen-terminated diamond interfaces. Journal of Applied Physics, 2015, 118, .	2.5	18
24	Face-to-Face vs. E-Learning Models in the COVID-19 Era: Survey Research in a Spanish University. Education Sciences, 2021, 11, 293.	2.6	18
25	Experimental and theoretical analysis of NiO nanofluids in presence of surfactants. Journal of Molecular Liquids, 2018, 252, 211-217.	4.9	17
26	Determination of alumina bandgap and dielectric functions of diamond MOS by STEM-VEELS. Applied Surface Science, 2018, 461, 93-97.	6.1	16
27	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.	10.1	16
28	Boron concentration profiling by high angle annular dark field-scanning transmission electron microscopy in homoepitaxial Í´-doped diamond layers. Applied Physics Letters, 2013, 103, .	3.3	14
29	A Solvothermal Synthesis of TiO2 Nanoparticles in a Non-Polar Medium to Prepare Highly Stable Nanofluids with Improved Thermal Properties. Nanomaterials, 2018, 8, 816.	4.1	14
30	Synthesis of Wâ€doped TiO₂ by lowâ€temperature hydrolysis: Effects of annealing temperature and doping content on the surface microstructure and photocatalytic activity. Journal of the Chinese Chemical Society, 2019, 66, 99-109.	1.4	14
31	Surface States of (100) O-Terminated Diamond: Towards Other 1 Ã— 1:O Reconstruction Models. Nanomaterials, 2020, 10, 1193.	4.1	12
32	The Role of the Interactions at the Tungsten Disulphide Surface in the Stability and Enhanced Thermal Properties of Nanofluids with Application in Solar Thermal Energy. Nanomaterials, 2020, 10, 970.	4.1	11
33	Insights into the stability and thermal properties of WSe2-based nanofluids for concentrating solar power prepared by liquid phase exfoliation. Journal of Molecular Liquids, 2020, 319, 114333.	4.9	10
34	Formative Potential of the Development and Assessment of an Educational Escape Room Designed to Integrate Music-Mathematical Knowledge. Education Sciences, 2021, 11, 131.	2.6	10
35	CuO-containing oil-based nanofluids for concentrating solar power: An experimental and computational integrated insight. Journal of Molecular Liquids, 2021, 325, 114643.	4.9	9
36	Metalâ€“oxideâ€“diamond interface investigation by TEM: Toward MOS and Schottky power device behavior. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2367-2371.	1.8	8

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37	The Role of Surfactants in the Stability of NiO Nanofluids: An Experimental and DFT Study. ChemPhysChem, 2017, 18, 346-356.	2.1	8
38	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.	2.7	8
39	Impact of Thermal Treatments in Crystalline Reconstruction and Electrical Properties of Diamond Ohmic Contacts Created by Boron Ion Implantation. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700230.	1.8	7
40	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.	2.8	7
41	Twins and strain relaxation in zinc-blende GaAs nanowires grown on silicon. Applied Surface Science, 2017, 395, 195-199.	6.1	6
42	Impact of Nonhomoepitaxial Defects in Depleted Diamond MOS Capacitors. IEEE Transactions on Electron Devices, 2018, 65, 1830-1837.	3.0	6
43	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.	4.9	6
44	Tuning the structural, optical and photoluminescence properties of hybrid perovskite quantum dots by A-site doping. Applied Materials Today, 2020, 18, 100488.	4.3	6
45	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.	5.2	5
46	Stability and Thermal Properties Study of Metal Chalcogenide-Based Nanofluids for Concentrating Solar Power. Energies, 2019, 12, 4632.	3.1	4
47	Lattice performance during initial steps of the Smart-Cutâ„¢ process in semiconducting diamond: A STEM study. Applied Surface Science, 2020, 528, 146998.	6.1	4
48	Preface for the Special Issue â€œTrends in Educational Gamification: Challenges and Learning Opportunitiesâ€• Education Sciences, 2022, 12, 179.	2.6	4
49	NiO nanowire-containing heat transfer nanofluids for CSP plants: Experiments and simulations to promote their application. Journal of Molecular Liquids, 2022, 361, 119593.	4.9	3
50	Interface chemistry effects in nanofluids: Experimental and computational study of oil-based nanofluids with gold nanoplates. Journal of Molecular Liquids, 2022, 362, 119762.	4.9	3
51	High resolution boron content profilometry at Î´-doping epitaxial diamond interfaces by CTEM. Applied Surface Science, 2018, 461, 221-226.	6.1	2
52	The effect of a complex A-site cation and mixed halides in the emission properties of perovskite quantum dots. Journal of Molecular Liquids, 2020, 314, 113674.	4.9	2
53	Comprehensive nanoscopic analysis of tungsten carbide/Oxygenated-diamond contacts for Schottky barrier diodes. Applied Surface Science, 2021, 537, 147874.	6.1	2
54	CodiseÃ±o de problemas geomÃ©tricos apoyados en TICs: estudio de un caso con estudiantes de maestros bajo un modelo de aprendizaje mixto. Edutec, 2020, , 94-113.	0.4	2

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55	Sala de fuga e aprendizagem mista como ferramentas para a formaÃ§Ã£o de professores do ensino primÃ¡rio. Brazilian Journal of Development, 2019, 5, 5983-5992.	0.1	2
56	Heteroepitaxial CVD Growth of 3C-SiC on Diamond Substrate. Materials Science Forum, 2014, 778-780, 226-229.	0.3	1
57	Eficacia comparativa de mÃ©todos de aprendizaje mixto en la enseÃ±anza de nuevos algoritmos a maestros en formaciÃ³n: estudio de un caso para la elaboraciÃ³n de directrices de diseÃ±o. Brazilian Journal of Development, 2019, 5, 7431-7444.	0.1	1
58	Enhanced thermophysical properties in spinel CuFe 2 O 4 â€based nanofluids for concentrated solar power. International Journal of Energy Research, 0, , .	4.5	1
59	Hydrogen implantation-induced blistering in diamond: Toward diamond layer transfer by the Smart Cutâ„¢ technique. Diamond and Related Materials, 2022, 126, 109085.	3.9	1
60	3C-SiC Seeded Growth on Diamond Substrate by VLS Transport. Materials Science Forum, 2014, 778-780, 234-237.	0.3	0
61	Diamond as substrate for 3Câ€SiC growth: A TEM study. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2302-2306.	1.8	0
62	Proceso coordinado de formaciÃ³n de maestros del grado de educaciÃ³n primaria. Brazilian Journal of Development, 2019, 5, 6130-6135.	0.1	0
63	El modelo de escuela rural como responsable de la migraciÃ³n de los jÃ³venes de sus territorios. Brazilian Journal of Development, 2019, 5, 7410-7425.	0.1	0