Jorge M Osorio-GuillÃ©n

List of Publications by Year
in descending order

62 papers	3,790 citations	279701 23 h-index	128225 60 g-index
62 all docs	62 docs citations	62 times ranked	5227 citing authors

#	Article	IF	Citations
1	Ferromagnetism above room temperature in bulk and transparent thin films of Mn-doped ZnO. Nature Materials, 2003, 2, 673-677.	13.3	1,687
2	Magnetism without Magnetic Ions: Percolation, Exchange, and Formation Energies of Magnetism-Promoting Intrinsic Defects in CaO. Physical Review Letters, 2006, 96, 107203.	2.9	307
3	Origins of the doping asymmetry in oxides: Hole doping in NiO versus electron doping in ZnO. Physical Review B, 2007, 75, .	1.1	218
4	Experimental and Theoretical Identification of a New High-PressureTiO2Polymorph. Physical Review Letters, 2001, 87, 275501.	2.9	175
5	Atomic Control of Conductivity Versus Ferromagnetism in Wide-Gap Oxides Via Selective Doping: V, Nb, Ta in Anatase<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>TiO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2008, 100, 036601.	2.9	161
6	Nonstoichiometry as a source of magnetism in otherwise nonmagnetic oxides: Magnetically interacting cation vacancies and their percolation. Physical Review B, 2007, 75, .	1.1	109
7	Electronic and optical properties of lead iodide. Journal of Applied Physics, 2002, 92, 7219-7224.	1.1	96
8	Electronic structure of phospho-olivines LixFePO4 (x=0,1) from soft-x-ray-absorption and -emission spectroscopies. Journal of Chemical Physics, 2005, 123, 184717.	1.2	79
9	Role of titanium in hydrogen desorption in crystalline sodium alanate. Applied Physics Letters, 2005, 86, 251913.	1.5	69
10	A theoretical study of olivine LiMPO4 cathodes. Solid State Ionics, 2004, 167, 221-227.	1.3	67
11	The structure of the metallic high-pressure Fe3O4polymorph: experimental and theoretical study. Journal of Physics Condensed Matter, 2003, 15, 7697-7706.	0.7	65
12	First-principles equation of state and phase stability of niobium pentoxide. Computational Materials Science, 2014, 81, 133-140.	1.4	59
13	Titanium metal at high pressure: Synchrotron experiments andab initiocalculations. Physical Review B, 2004, 69, .	1.1	50
14	Electronic and optical properties of Â-Al2O3fromab initiotheory. Journal of Physics Condensed Matter, 2004, 16, 2891-2900.	0.7	47
15	Origin of transition metal clustering tendencies in GaAs based dilute magnetic semiconductors. Applied Physics Letters, 2005, 86, 172504.	1.5	42
16	Calculation of surface stress for fcc transition metals. Physical Review B, 2003, 68, .	1.1	39
17	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>Ti</mml:mi><mml:mi>n</mml:mi></mml:msub><mml:mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mi>n</mml:mi><mml:mo>â^'</mml:mo><mml:mn>1</mml:mn> phases studied using density functional theory. Physical Review B, 2014, 90, .	1.1	33
18	X-ray spectroscopic study of the charge state and local ordering of room-temperature ferromagnetic Mn-doped ZnO. Journal of Physics Condensed Matter, 2007, 19, 172202.	0.7	31

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19	A search for the ground state structure and the phase stability of tantalum pentoxide. Journal of Physics Condensed Matter, 2016, 28, 035801.	0.7	27
20	Bonding and elastic properties of superconducting MgB2. Solid State Communications, 2002, 123, 257-262.	0.9	26
21	Impurity-related polarizability and photoionization-cross section in double quantum wells under electric fields and hydrostatic pressure. Superlattices and Microstructures, 2009, 45, 590-597.	1.4	26
22	Structural and Electronic Properties of Cu₂MnSnS₄ from Experiment and Firstâ€Principles Calculations. Physica Status Solidi (B): Basic Research, 2019, 256, 1800743.	0.7	25
23	Nonstoichiometry and hole doping in NiO. AIP Conference Proceedings, 2010, , .	0.3	24
24	Electronic, dielectric, and optical properties of the B phase of niobium pentoxide and tantalum pentoxide by firstâ€principles calculations. Physica Status Solidi (B): Basic Research, 2013, 250, 1644-1650.	0.7	24
25	Electronic structure and ionic diffusion of green battery cathode material: Mg2Mo6S8. Solid State Ionics, 2014, 261, 17-20.	1.3	23
26	Optical properties of 4Hâ€“SiC. Journal of Applied Physics, 2002, 91, 2099-2103.	1.1	20
27	The elastic and bonding properties of the sulvanite compounds: A first-principles study by local and semi-local functionals. Physica B: Condensed Matter, 2011, 406, 3788-3793.	1.3	20
28	Pressure-induced structural transformations in the Mott insulatorFeI2. Physical Review B, 2003, 68, .	1.1	19
29	Pressure-induced metal-insulator transition and absence of magnetic order in FeGa<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>from a first-principles study. Physical Review B, 2012, 86, .	1.1	19
30	A first-principles study of the electronic structure of the sulvanite compounds. Physica B: Condensed Matter, 2012, 407, 985-991.	1.3	17
31	Pressure effects on the structure and vibrations ofÎ²- andÎ³â€²C3N4. Physical Review B, 2004, 70, .	1.1	15
32	Phononic and thermodynamic properties of the sulvanite compounds: A first-principles study. Computational Materials Science, 2016, 113, 275-279.	1.4	14
33	Structural stability of(Ga,Mn)Asfrom first principles: Random alloys, ordered compounds, and superlattices. Physical Review B, 2006, 74, .	1.1	11
34	Assessing photocatalytic power of g-C3N4 for solar fuel production: A first-principles study involving quasi-particle theory and dispersive forces. Journal of Chemical Physics, 2015, 143, 094705.	1.2	11
35	High-temperature ferromagnetism in Cu-doped GaP by SQUID magnetometry and ferromagnetic resonance measurements. Physical Review B, 2006, 74, .	1.1	10
36	Gd³⁺spinâ€“lattice relaxation via multi-band conduction electrons in Y_{1â€²x}Gd_xIn₃: an electron spin resonance study. Journal of Physics Condensed Matter, 2014, 26, 175501.	0.7	10

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37	Multiband electronic characterization of the complex intermetallic cage system<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Y</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow> Physical Review B, 2015, 92, .	1.1	10
38	Emergence of competing magnetic interactions induced by Ge doping in the semiconductorFeGa3. Physical Review B, 2016, 94, .	1.1	9
39	Electronic structure of a thermoelectric material: CsBi4Te6. Journal of Physics and Chemistry of Solids, 2008, 69, 2274-2276.	1.9	7
40	Conduction electrons mediating the evolution from antiferromagnetic to ferromagnetic ordering inGd(Co1â^'yFey)2Zn20(0â‰¤yâ‰¤1). Physical Review B, 2017, 95, .	1.1	7
41	Semiclassical transport properties of IrGa₃: a promising thermoelectric material. Journal of Physics Condensed Matter, 2018, 30, 085701.	0.7	7
42	Superconductivity in monocrystalline <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>YNiSi</mml:mi><mml:mn>3</mml:mn></mml:msub></mm and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LuNiSi</mml:mi><mml:mn>3</mml:mn></mml:msub></m Physical Review B, 2019, 99, .	1.1	7
43	Unusual Room Temperature Ferromagnetism in Bulk Sintered GaP Doped with Copper. IEEE Transactions on Magnetics, 2007, 43, 3043-3045.	1.2	6
44	Dimension-dependent band alignment and excitonic effects in graphitic carbon nitride: a many-body perturbation and time-dependent density functional theory study. RSC Advances, 2017, 7, 44997-45002.	1.7	6
45	The electronic and optical properties of the sulvanite compounds: a many-body perturbation and time-dependent density functional theory study. Journal of Physics Condensed Matter, 2018, 30, 035502.	0.7	6
46	Structural and dynamical properties of the Cu46Zr54 alloy in crystalline, amorphous and liquid state: A molecular dynamicstudy. Physica B: Condensed Matter, 2010, 405, 4970-4977.	1.3	5
47	Conduction electron spin resonance in AlB₂. Journal of Physics Condensed Matter, 2013, 25, 216001.	0.7	5
48	Low temperature transport and thermodynamic properties of the Zintl compound Yb11AlSb9: A new Kondo lattice semiconductor. Journal of Alloys and Compounds, 2016, 669, 60-65.	2.8	5
49	New nickel-based hybrid organic/inorganic metal halide for photovoltaic applications. Journal of Chemical Physics, 2018, 148, 244703.	1.2	5
50	Doping quantum materials: Defects and impurities in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Fe</mml:mi><mml:msub><mml:mi>Ga</mml:mi><mml:m Physical Review B, 2020, 102, .	1.1	5
51	First principles calculations of the electronic and dielectric properties of Î»-Ta2O5. Tecno LÃ³gicas, 2018, 21, 43-52.	0.1	5
52	Structural Phase Transitions in Heavy Alkali Metals Under Pressure. ChemPhysChem, 2004, 5, 1411-1415.	1.0	4
53	Enhancement of interactions between magnetic ions in semiconductors due to declustering. Physical Review B, 2006, 74, .	1.1	4
54	Optical and dielectric properties of Î²-Ta₂O₅. Journal of Physics: Conference Series, 2018, 1043, 012036.	0.3	3

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55	Grinding methods effects on the synthesis of Potassium-Sodium Niobate powders by oxide mixing. Tecno LÃ³gicas, 2019, 22, 15-23.	0.1	3
56	A systematic first-principles study of the tungsten trioxide polymorphs. Physica Status Solidi (B): Basic Research, 2015, 252, 2290-2295.	0.7	2
57	Photoacoustic and transmission studies of SiC polytypes. Materials Research, 2003, 6, 47-49.	0.6	1
58	Elastic properties of Mg(1Âx)AlxB2from first principles theory. Journal of Physics Condensed Matter, 2004, 16, 5241-5250.	0.7	1
59	Un estudio teÃ³rico de la estructura electrÃ³nica y las propiedades dielÃ©ctricas de B-Nb2O5. Tecno LÃ³gicas, 2011, , 103.	0.1	1
60	CO Oxidation Catalytic Effects of Intrinsic Surface Defects in Rhombohedral LaMnO₃. ChemPhysChem, 2022, 23, e202200152.	1.0	1
61	Spectroscopy studies of 4H-SiC. Materials Research, 2003, 6, 43-45.	0.6	0
62	Propiedades piezoelÃ©ctricas del PentÃ³xido de Niobio y PentÃ³xido de Tantalio. Tecno LÃ³gicas, 2017, 20, 43-51.	0.1	0