Jorge M Osorio-Guilln

List of Publications by Citations

60 papers	3,367 citations	19 h-index	58 g-index
62 ext. papers	3,558 ext. citations	3.2 avg, IF	4.75 L-index

#	Paper	IF	Citations
60	Ferromagnetism above room temperature in bulk and transparent thin films of Mn-doped ZnO. *Nature Materials*, **2003**, 2, 673-7	27	1568
59	Magnetism without magnetic ions: percolation, exchange, and formation energies of magnetism-promoting intrinsic defects in CaO. *Physical Review Letters*, **2006**, 96, 107203	7.4	285
58	Origins of the doping asymmetry in oxides: Hole doping in NiO versus electron doping in ZnO. *Physical Review B*, **2007**, 75,	3.3	182
57	Experimental and theoretical identification of a new high-pressure TiO2 polymorph. *Physical Review Letters*, **2001**, 87, 275501	7.4	156
56	Atomic control of conductivity versus ferromagnetism in wide-gap oxides via selective doping: V, Nb, Ta in anatase TiO2. *Physical Review Letters*, **2008**, 100, 036601	7.4	141
55	Nonstoichiometry as a source of magnetism in otherwise nonmagnetic oxides: Magnetically interacting cation vacancies and their percolation. *Physical Review B*, **2007**, 75,	3.3	99
54	Electronic and optical properties of lead iodide. *Journal of Applied Physics*, **2002**, 92, 7219-7224	2.5	84
53	Role of titanium in hydrogen desorption in crystalline sodium alanate. *Applied Physics Letters*, **2005**, 86, 251913	3.4	67
52	Electronic structure of phospho-olivines Li(x)FePO4 (x = 0, 1) from soft-x-ray-absorption and -emission spectroscopies. *Journal of Chemical Physics*, **2005**, 123, 184717	3.9	67
51	A theoretical study of olivine LiMPO4 cathodes. *Solid State Ionics*, **2004**, 167, 221-227	3.3	58
50	Titanium metal at high pressure: Synchrotron experiments and ab initio calculations. *Physical Review B*, **2004**, 69,	3.3	46
49	The structure of the metallic high-pressure Fe3O4polymorph: experimental and theoretical study. *Journal of Physics Condensed Matter*, **2003**, 15, 7697-7706	1.8	44
48	Electronic and optical properties of ´-Al2O3fromab initiotheory. *Journal of Physics Condensed Matter*, **2004**, 16, 2891-2900	1.8	42
47	Origin of transition metal clustering tendencies in GaAs based dilute magnetic semiconductors. *Applied Physics Letters*, **2005**, 86, 172504	3.4	41
46	First-principles equation of state and phase stability of niobium pentoxide. *Computational Materials Science*, **2014**, 81, 133-140	3.2	40
45	Calculation of surface stress for fcc transition metals. *Physical Review B*, **2003**, 68,	3.3	38
44	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	1.8	28

43	TinO2n−1 Magn− phases studied using density functional theory. *Physical Review B*, **2014**, 90,	3.3	26
42	Bonding and elastic properties of superconducting MgB2. *Solid State Communications*, **2002**, 123, 257-262	1.6	24
41	A search for the ground state structure and the phase stability of tantalum pentoxide. *Journal of Physics Condensed Matter*, **2016**, 28, 035801	1.8	19
40	Impurity-related polarizability and photoionization-cross section in double quantum wells under electric fields and hydrostatic pressure. *Superlattices and Microstructures*, **2009**, 45, 590-597	2.8	19
39	Nonstoichiometry and hole doping in NiO **2010**,		19
38	Optical properties of 4H-SiC. *Journal of Applied Physics*, **2002**, 91, 2099-2103	2.5	19
37	Electronic structure and ionic diffusion of green battery cathode material: Mg2Mo6S8. *Solid State Ionics*, **2014**, 261, 17-20	3.3	17
36	Pressure-induced metal-insulator transition and absence of magnetic order in FeGa3 from a first-principles study. *Physical Review B*, **2012**, 86,	3.3	17
35	Electronic, dielectric, and optical properties of the B phase of niobium pentoxide and tantalum pentoxide by first-principles calculations. *Physica Status Solidi (B): Basic Research*, **2013**, 250, 1644-1650	1.3	17
34	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	2.8	17
33	A first-principles study of the electronic structure of the sulvanite compounds. *Physica B: Condensed Matter*, **2012**, 407, 985-991	2.8	16
32	Pressure-induced structural transformations in the Mott insulator FeI2. *Physical Review B*, **2003**, 68,	3.3	16
31	Pressure effects on the structure and vibrations of - and -C3N4. *Physical Review B*, **2004**, 70,	3.3	15
30	Structural and Electronic Properties of Cu2MnSnS4 from Experiment and First-Principles Calculations. *Physica Status Solidi (B): Basic Research*, **2019**, 256, 1800743	1.3	13
29	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	3.9	11
28	Structural stability of (Ga,Mn)As from first principles: Random alloys, ordered compounds, and superlattices. *Physical Review B*, **2006**, 74,	3.3	11
27	High-temperature ferromagnetism in Cu-doped GaP by SQUID magnetometry and ferromagnetic resonance measurements. *Physical Review B*, **2006**, 74,	3.3	10
26	Phononic and thermodynamic properties of the sulvanite compounds: A first-principles study. *Computational Materials Science*, **2016**, 113, 275-279	3.2	9

25	Gd3+ spin-lattice relaxation via multi-band conduction electrons in Y(1-x)Gd(x)In3: an electron spin resonance study. *Journal of Physics Condensed Matter*, **2014**, 26, 175501	1.8	7
24	Emergence of competing magnetic interactions induced by Ge doping in the semiconductor FeGa3. *Physical Review B*, **2016**, 94,	3.3	7
23	Multiband electronic characterization of the complex intermetallic cage system Y1−xGdxCo2Zn20. *Physical Review B*, **2015**, 92,	3.3	6
22	Unusual Room Temperature Ferromagnetism in Bulk Sintered GaP Doped with Copper. *IEEE Transactions on Magnetics*, **2007**, 43, 3043-3045	2	6
21	Electronic structure of a thermoelectric material: CsBi4Te6. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 2274-2276	3.9	6
20	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	2.8	5
19	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	3.7	4
18	Semiclassical transport properties of IrGa: a promising thermoelectric material. *Journal of Physics Condensed Matter*, **2018**, 30, 085701	1.8	4
17	Conduction electron spin resonance in AlB2. *Journal of Physics Condensed Matter*, **2013**, 25, 216001	1.8	4
16	Enhancement of interactions between magnetic ions in semiconductors due to declustering. *Physical Review B*, **2006**, 74,	3.3	4
15	Structural phase transitions in heavy alkali metals under pressure. *ChemPhysChem*, **2004**, 5, 1411-5	3.2	4
14	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	1.8	4
13	Superconductivity in monocrystalline YNiSi3 and LuNiSi3. *Physical Review B*, **2019**, 99,	3.3	3
12	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	5.7	3
11	Conduction electrons mediating the evolution from antiferromagnetic to ferromagnetic ordering in Gd(Co1−yFey)2Zn20 (0≤y≤1). *Physical Review B*, **2017**, 95,	3.3	3
10	First principles calculations of the electronic and dielectric properties of α-Ta2O5. *Tecno Lógicas*, **2018**, 21, 43-52	0.6	3
9	Doping quantum materials: Defects and impurities in FeGa3. *Physical Review B*, **2020**, 102,	3.3	3
8	A systematic first-principles study of the tungsten trioxide polymorphs. *Physica Status Solidi (B): Basic Research*, **2015**, 252, 2290-2295	1.3	2

List of Publications

7	Grinding methods effects on the synthesis of Potassium-Sodium Niobate powders by oxide mixing. *Tecno Lógicas*, **2019**, 22, 15-23	0.6	2
6	New nickel-based hybrid organic/inorganic metal halide for photovoltaic applications. *Journal of Chemical Physics*, **2018**, 148, 244703	3.9	2
5	Optical and dielectric properties of Ta2O5. *Journal of Physics: Conference Series*, **2018**, 1043, 012036	0.3	1
4	Photoacoustic and transmission studies of SiC polytypes. *Materials Research*, **2003**, 6, 47-49	1.5	1
3	Elastic properties of Mg(1´x)AlxB2from first principles theory. *Journal of Physics Condensed Matter*, **2004**, 16, 5241-5250	1.8	1
2	Spectroscopy studies of 4H-SiC. *Materials Research*, **2003**, 6, 43-45	1.5	
1	CO Oxidation Catalytic Effects of Intrinsic Surface Defects in Rhombohedral LaMnO.. *ChemPhysChem*, **2022**, e202200152	3.2	