

Leon Petit

List of Publications by Year in descending order

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54
papers

2,170
citations

236925

25
h-index

214800

47
g-index

55
all docs

55
docs citations

55
times ranked

2494
citing authors

#	ARTICLE	IF	CITATIONS
1	Electronic structures of normal and inverse spinel ferrites from first principles. Physical Review B, 2006, 74, .	3.2	251
2	Bulk modulus of CeO ₂ and PrO ₂ —An experimental and theoretical study. Journal of Alloys and Compounds, 2005, 400, 56-61.	5.5	226
3	First-principles study of rare-earth oxides. Physical Review B, 2005, 72, .	3.2	149
4	First-Principles Calculations of PuO ₂ . Science, 2003, 301, 498-501.	12.6	144
5	Electronic structure and ionicity of actinide oxides from first principles. Physical Review B, 2010, 81, .	3.2	123
6	Electronic structure of half-metallic double perovskites. Physical Review B, 2003, 68, .	3.2	72
7	Half-metallic transition metal oxides. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1816-1817.	2.3	70
8	Electronic structure of rare-earth impurities in GaAs and GaN. Physical Review B, 2006, 74, .	3.2	65
9	Rare earth monpnictides and monochalcogenides from first principles: towards an electronic phase diagram of strongly correlated materials. New Journal of Physics, 2010, 12, 113041.	2.9	61
10	Mott transition of MnO under pressure: A comparison of correlated band theories. Physical Review B, 2006, 74, .	3.2	60
11	Electronic structure of samarium monpnictides and monochalcogenides. Physical Review B, 2005, 71, .	3.2	57
12	Ab initio study of charge order in Fe ₃ O ₄ . Physical Review B, 2003, 68, .	3.2	55
13	Theoretical Study on the Structure, Stability, and Electronic Properties of the Guanine~Zn~Cytosine Base Pair in M-DNA. Journal of Physical Chemistry B, 2007, 111, 870-879.	2.6	55
14	Ground-state electronic structure of actinide monocarbides and mononitrides. Physical Review B, 2009, 80, .	3.2	53
15	Ab initio theory of valency in ytterbium compounds. Physical Review B, 2000, 62, 13394-13399.	3.2	51
16	Electronic structure of transition-metal impurities in p-type ZnO. Physical Review B, 2006, 73, .	3.2	48
17	Self-interaction-corrected local spin density theory of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" > \langle \text{mml:mrow} > \langle \text{mml:mn} > 5 < / \text{mml:mn} > \langle \text{mml:mi} > f < / \text{mml:mi} > \langle / \text{mml:mrow} > \langle / \text{mml:math} > \text{electron localization in actinides. Physical Review B. 2007, 76, .$	3.2	45
18	Pressure-Induced Valence Transitions in Rare Earth Chalcogenides and Pnictides. Physica Status Solidi (B): Basic Research, 2001, 223, 105-116.	1.5	43

#	ARTICLE	IF	CITATIONS
19	Valencies in actinides. Solid State Communications, 2000, 116, 379-383.	1.9	42
20	Electronic structure of Pu monochalcogenides and monopnictides. European Physical Journal B, 2002, 25, 139-146.	1.5	41
21	Electronic structure of Sm and Eu chalcogenides. Physica Status Solidi (B): Basic Research, 2004, 241, 3185-3192.	1.5	40
22	Self-interaction-corrected description of the electronic properties of americium monochalcogenides and monopnictides. Physical Review B, 2001, 63, .	3.2	32
23	Rare-earth/transition-metal magnetic interactions in pristine and (Ni,Fe)-doped YCo_5 and GdCo_5 . Physical Review Materials, 2017, 1, .	2.4	31
24	Electronic structure of praseodymium monopnictides and monochalcogenides under pressure. Journal of Physics Condensed Matter, 2004, 16, 4429-4440.	1.8	30
25	Electronic structure of half-metallic ferromagnets and spinel ferromagnetic insulators. Journal of Physics Condensed Matter, 2004, 16, S5587-S5600.	1.8	28
26	5f Electron Localization-Delocalization Transition from UPd3 to UPt3. Physical Review Letters, 2002, 88, 216403.	7.8	24
27	Complex Magnetism of Lanthanide Intermetallics and the Role of their Valence Electrons: Ab initio Theory and Experiment. Physical Review Letters, 2015, 115, 207201.	7.8	24
28	Rare-earth pnictides and chalcogenides from first-principles. Journal of Physics Condensed Matter, 2016, 28, 223001.	1.8	24
29	Simple rules for determining valencies of f-electron systems. Journal of Physics Condensed Matter, 2001, 13, 8697-8706.	1.8	23
30	Ground State Valency and Spin Configuration of the Ni Ions in Nickelates. Physical Review Letters, 2006, 97, 146405.	7.8	23
31	First-principles electronic structure of Mn-doped GaAs, GaP, and GaN semiconductors. Journal of Physics Condensed Matter, 2007, 19, 165207.	1.8	22
32	Ab initio charge, spin and orbital energy scales in LaMnO_3 . Europhysics Letters, 2004, 65, 519-525.	2.0	19
33	First-order ferromagnetic transitions of lanthanide local moments in divalent compounds: An itinerant electron positive feedback mechanism and Fermi surface topological change. Physical Review B, 2020, 101, .	3.2	15
34	Electronic Structure of Rare Earth Oxides. Topics in Applied Physics, 2006, , 331-343.	0.8	14
35	Phase transitions in rare earth tellurides under pressure. Journal of Physics Condensed Matter, 2014, 26, 274213.	1.8	14
36	Chapter 241 The Dual, Localized or Band-Like, Character of the $4f$ States. Fundamental Theories of Physics, 2009, 39, 1-112.	0.3	12

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37	Ab initio determination of the localized/delocalized f -manifold in UPd ₂ Al ₃ . Europhysics Letters, 2003, 62, 391-397.	2.0	11
38	Pressure induced valence transitions in f-electron systems. Phase Transitions, 2007, 80, 415-443.	1.3	11
39	Experimental and theoretical study of the correlated compound YbCdSn: Evidence for large magnetoresistance and mass enhancement. Physical Review B, 2020, 102, .	3.2	11
40	The effect of high magnetic field on phase stability in Fe-Ni. Journal of Applied Physics, 2004, 95, 6580-6582.	2.5	10
41	Screened real-space Korringa-Kohn-Rostoker description of the relativistic and magnetic properties of transition metals. Journal of Physics Condensed Matter, 2000, 12, 8439-8454.	1.8	6
42	First-principles study of valence and structural transitions in EuO under pressure. Physical Review B, 2014, 90, .	3.2	6
43	Electronic structure and isomer shifts of neptunium compounds. Physical Review B, 2002, 66, .	3.2	5
44	Magnetic properties of Gd intermetallics. Journal of Magnetism and Magnetic Materials, 2018, 448, 9-12.	2.3	5
45	Magnetic structure of selected Gd intermetallic alloys from first principles. Physical Review B, 2020, 101, .	3.2	5
46	Valency configuration of transition metal impurities in ZnO. Journal of Electronic Materials, 2006, 35, 556-561.	2.2	4
47	Effect of pressure on f-electron delocalization and oxidation in actinide dioxides. Journal of Nuclear Materials, 2014, 451, 313-319.	2.7	4
48	First-Principles Calculations of PuO _{2-x} . ChemInform, 2003, 34, no.	0.0	1
49	Valencies of Mn impurities in ZnO. Materials Research Society Symposia Proceedings, 2004, 825, G2.9.1.	0.1	1
50	Oxide Interfaces Under the Electron Microscope. Microscopy and Microanalysis, 2008, 14, 1346-1347.	0.4	1
51	Self-interaction corrected local spin density calculations of actinides. IOP Conference Series: Materials Science and Engineering, 2010, 9, 012084.	0.6	1
52	A first principles investigation of the electronic structure of actinide oxides. Materials Research Society Symposia Proceedings, 2010, 1265, 1.	0.1	1
53	Analytic expressions for Hubbard models with arbitrary structures in programmable optical lattices. Physical Review A, 2021, 104, .	2.5	1
54	SIC-LSD study of $\hat{\Gamma}$ -Pu and PuO _{2-x} . Materials Research Society Symposia Proceedings, 2003, 802, 215.	0.1	0