Sudhir Kumar Pandey

List of Publications by Year in Descending Order

86 papers	833 citations	18 h-index	23 g-index
105 ext. papers	1,020 ext. citations	2.2 avg, IF	4.81 L-index

#	Paper	IF	Citations
86	Enhancement in thermoelectric properties of n-type (La0.7Sr0.3MnO3)0.5.(NiO)0.5: composite and nano-structure effect. *Journal Physics D: Applied Physics*, **2022**, 55, 065503	3	1
85	Instrument for simultaneous measurement of Seebeck coefficient and thermal conductivity in the temperature range 300-800 K with Python interfacing.. *Review of Scientific Instruments*, **2022**, 93, 043902	1.7	0
84	Exploring the suitable theoretical approach for understanding the electronic and magnetic properties of □ron. *Physica B: Condensed Matter*, **2022**, 636, 413785	2.8	0
83	First-principles calculations to investigate transport properties of non-trivial fermions of CoSi. *Computational Condensed Matter*, **2022**, 31, e00686	1.7	
82	Recent Advances in Energy Harvesting from Waste Heat Using Emergent Thermoelectric Materials **2022**, 155-184		0
81	Electronic correlation effect on nontrivial topological fermions in CoSi. *European Physical Journal B*, **2021**, 94, 1	1.2	1
80	Dependency of XC functionals and role of 3s(2p) orbitals of Co(Si) as core/valence states on the vibrational and thermodynamic properties of CoSi. *Physica B: Condensed Matter*, **2021**, 608, 412804	2.8	0
79	Importance of macroscopic polarization on vibrational properties and the robust nature of (001) surface states of SnTe. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2021**, 401, 127359	2.3	0
78	Theory of energy conversion between heat and electricity **2021**, 21-53		
77	Investigating the thermoelectric properties of Na0.74Co1□Nb O2 (x = 0.05,0.10) at high temperature region. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2020**, 384, 126893	2.3	
76	A detailed electronic structure study of Vanadium metal by using different beyond-DFT methods. *European Physical Journal B*, **2020**, 93, 1	1.2	4
75	Understanding the temperature- and pressure-dependent electronic properties of FeSi: DFT + DMFT study. *Europhysics Letters*, **2020**, 132, 37003	1.6	1
74	First-principles electronic structure, phonon properties, lattice thermal conductivity and prediction of figure of merit of FeVSb half-Heusler. *Journal of Physics Condensed Matter*, **2020**, 33, 085704	1.8	3
73	Exploring the possibility of enhancing the figure-of-merit (> 2) of Na0.74CoO2: A combined experimental and theoretical study. *European Physical Journal B*, **2020**, 93, 1	1.2	2
72	Thermoelectric properties, efficiency and thermal expansion of ZrNiSn half-Heusler by first-principles calculations. *Journal of Physics Condensed Matter*, **2020**, 32, 355705	1.8	5
71	Studying the Seebeck coefficient of Fe2VAl compound in the high temperature region **2019**,		2
70	Two functionals approach in DFT for the prediction of thermoelectric properties of FeScX (X = P, As, Sb) full-Heusler compounds. *Journal of Physics Condensed Matter*, **2019**, 31, 435701	1.8	7

69	Effects of correlations and temperature on the electronic structures and related physical properties of FeSi and CoSi: a comprehensive study. *Journal of Physics Condensed Matter*, **2019**, 31, 145602	1.8	3
68	Exploring the best scenario for understanding the high temperature thermoelectric behaviour of Fe2VAl. *Materials Research Express*, **2019**, 6, 026302	1.7	10
67	Automated instrumentation for the determination of the high-temperature thermoelectric figure-of-merit. *Instrumentation Science and Technology*, **2018**, 46, 600-613	1.4	4
66	Calculation of effective Coulomb interaction in PrCoO3 **2018**,		1
65	Effect of nanostructure on thermoelectric properties of La0.7Sr0.3MnO3 in 300–800 K temperature range. *Materials Research Express*, **2018**, 5, 055026	1.7	3
64	Fabrication of Simple Apparatus for Resistivity Measurement in High-Temperature Range 300–820 K. *IEEE Transactions on Instrumentation and Measurement*, **2018**, 67, 2169-2176	5.2	5
63	Theoretical study of thermopower behavior of LaFeO3 compound in high temperature region **2018**,		3
62	Internal strain induced superconductivity in arc melted Ti0.97Fe0.03 alloy. *Superconductor Science and Technology*, **2018**, 31, 085004	3.1	0
61	Investigating the electronic structure of MSi (M = Cr, Mn, Fe & Co) and calculating U & J by using cDFT. *Computational Condensed Matter*, **2018**, 16, e00325	1.7	17
60	Studying the occupied and unoccupied electronic structure of LaCoO3 by using DFT+embedded DMFT method with the calculated value of U. *European Physical Journal B*, **2018**, 91, 1	1.2	8
59	A comparative study of different exchange-correlation functionals in understanding structural, electronic and thermoelectric properties of Fe2VAl and Fe2TiSn compounds. *Computational Materials Science*, **2018**, 143, 316-324	3.2	20
58	Effect of density functionals on the vibrational and thermodynamic properties of Fe2VAl and Fe2TiSn compounds. *Computational Materials Science*, **2018**, 155, 282-287	3.2	6
57	Fabrication of setup for high temperature thermal conductivity measurement. *Review of Scientific Instruments*, **2017**, 88, 015107	1.7	9
56	Fabrication of a simple apparatus for the Seebeck coefficient measurement in high temperature region. *Measurement: Journal of the International Measurement Confederation*, **2017**, 102, 26-32	4.6	15
55	Constrained DFT+U approach for understanding the magnetic behaviour of ACr2O4 (A=Zn, Mg, Cd and Hg) compounds. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2017**, 381, 917-923	2.3	9
54	Efficiency calculation of a thermoelectric generator for investigating the applicability of various thermoelectric materials. *Journal of Renewable and Sustainable Energy*, **2017**, 9, 014701	2.5	19
53	An important role of temperature dependent scattering time in understanding the high temperature thermoelectric behavior of strongly correlated system: LaBaCoO. *Journal of Physics Condensed Matter*, **2017**, 29, 105601	1.8	1
52	Self-consistent evaluation of effective Coulomb interaction U and its utilization to understand the degree of localization of electrons in vanadium spinels. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2017**, 381, 2117-2122	2.3	5

51	Interfacing of high temperature Z-meter setup using python **2017**,		2
50	Electronic structure study of vanadium spinels by using density functional theory and dynamical-mean-field theory. *Europhysics Letters*, **2017**, 117, 37002	1.6	4
49	Understanding the thermoelectric properties of LaCoO3 compound. *Philosophical Magazine*, **2017**, 97, 451-463	1.6	21
48	Experimental and theoretical investigations of thermoelectric properties of La 0.82 Ba 0.18 CoO 3 compound in high temperature region. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2017**, 381, 3101-3106	2.3	8
47	Role of orbital degrees of freedom in investigating the magnetic properties of geometrically frustrated vanadium spinels. *Computational Materials Science*, **2017**, 126, 373-381	3.2	4
46	Automated instrumentation for high-temperature Seebeck coefficient measurements. *Instrumentation Science and Technology*, **2017**, 45, 366-381	1.4	11
45	Calculation of efficiency and power output by considering different realistic prospects for recovering heat from automobile using thermoelectric generator. *Journal of Renewable and Sustainable Energy*, **2017**, 9, 064703	2.5	9
44	The role of ionic sizes in inducing the cubic to tetragonal distortion inAV2O4andACr2O4(A= Zn, Mg and Cd) compounds. *Materials Research Express*, **2016**, 3, 116301	1.7	1
43	Electronic structure of Mo1-x Re x alloys studied through resonant photoemission spectroscopy. *Journal of Physics Condensed Matter*, **2016**, 28, 315502	1.8	7
42	Thermal properties and electronic structure of superconducting germanide skutterudites and : a multi-band perspective. *Philosophical Magazine*, **2016**, 96, 2161-2175	1.6	6
41	Limitations of unconstrained LSDA+U calculations in predicting the electronic and magnetic ground state of a geometrically frustrated ZnV2O4 compound. *Journal of Magnetism and Magnetic Materials*, **2016**, 412, 23-29	2.8	4
40	Effect of on-site Coulomb interaction (U) on the electronic and magnetic properties of Fe2MnSi, Fe2MnAl and Co2MnGe. *Journal of Magnetism and Magnetic Materials*, **2016**, 403, 1-7	2.8	12
39	Investigation of thermoelectric properties of ZnV2O4compound at high temperatures. *Journal Physics D: Applied Physics*, **2016**, 49, 425601	3	14
38	The importance of temperature dependent energy gap in the understanding of high temperature thermoelectric properties. *Materials Research Express*, **2016**, 3, 105501	1.7	1
37	Evidence of spin lattice coupling in MnTiO 3 : An x-ray diffraction study. *Europhysics Letters*, **2015**, 110, 27007	1.6	10
36	Inverse photoemission spectroscopic studies on phase separated La0.2Sr0.8MnO3. *Solid State Communications*, **2015**, 217, 70-73	1.6	
35	Strong electron–phonon coupling and multiband effects in the superconducting ϕ phase Mo_1 $_2$Rexalloys. *New Journal of Physics*, **2015**, 17, 053003	2.9	12
34	Applicability of two-current model in understanding the electronic transport behavior of inverse Heusler alloy: Fe 2 CoSi. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2015**, 379, 2357-2361	2.3	22

33	Density matrix approach to the orbital ordering in the spinel vanadates: a case study. *European Physical Journal B*, **2014**, 87, 1	1.2	7
32	The influence of electron-phonon coupling and spin fluctuations on the superconductivity of the Ti-V alloys. *European Physical Journal B*, **2014**, 87, 1	1.2	9
31	Investigation of thermoelectric properties of half-metallic CoMnGe by using first principles calculations. *Journal of Physics Condensed Matter*, **2014**, 26, 215501	1.8	24
30	A first principle study of electronic band structures and effective mass tensors of thermoelectric materials: PbTe, Mg2Si, FeGa3 and CoSb3. *Computational Materials Science*, **2014**, 85, 340-346	3.2	23
29	Pressure-induced spin state transition in BiFeO3: an ab initio electronic structure calculation. *EPJ Applied Physics*, **2014**, 67, 20602	1.1	1
28	Investigation of the electronic and thermoelectric properties of Fe2ScX (X = P, As and Sb) full Heusler alloys by using first principles calculations. *Journal Physics D: Applied Physics*, **2014**, 47, 445303	3	24
27	Nitrogen- and fluorine-doped ZrO2: a promising p-n junction for an ultraviolet light-emitting diode. *Journal of Physics Condensed Matter*, **2012**, 24, 335801	1.8	3
26	Effect of pressure on the electronic and magnetic properties of CdV2O4: Density functional theory studies. *Physical Review B*, **2012**, 86,	3.3	11
25	Implication of local moment at Ti and Fe sites for the electrical and magneto-transport properties of degenerate semiconducting TiFexO epitaxial films. *Journal of Physics Condensed Matter*, **2012**, 24, 056004	1.8	4
24	Electronic structure near the quantum critical point in V-doped Cr A high-resolution photoemission study. *Europhysics Letters*, **2012**, 99, 37009	1.6	7
23	Electronic depiction of magnetic origin in undoped and Fe doped TiO2 epitaxial thin films. *Applied Physics Letters*, **2011**, 99, 112502	3.4	36
22	Valence and origin of metal nsulator transition in Mn doped SrRuO3 studied by electrical transport, X-ray photoelectron spectroscopy and LSDA+U calculation. *Journal of Solid State Chemistry*, **2011**, 184, 523-530	3.3	8
21	Orbital ordering in the geometrically frustrated MgV2O4: Ab initio electronic structure calculations. *Physical Review B*, **2011**, 84,	3.3	14
20	Effect of non-magnetic impurities on the magnetic states of anatase TiO *Journal of Physics Condensed Matter*, **2011**, 23, 276005	1.8	18
19	Temperature dependence of thermoelectric power and thermal conductivity in ferromagnetic shape memory alloy Ni50Mn34In16 in magnetic fields. *Physical Review B*, **2010**, 81,	3.3	25
18	Importance of Coulomb correlation and spin-orbit coupling in a 5d pyrochlore: Pr2Ir2O7. *Physical Review B*, **2010**, 82,	3.3	5
17	Kondo resonance in a magnetically ordered compound Ce2RhSi3: Photoemission spectroscopy and ab initio band structure calculations. *Physical Review B*, **2010**, 82,	3.3	19
16	Correlation induced half-metallicity in a ferromagnetic single-layered compound: Sr2CoO4. *Physical Review B*, **2010**, 81,	3.3	24

15	Spectral evolution in an insulator exhibiting linear specific heat. *New Journal of Physics*, **2010**, 12, 033003	2.9	5
14	Importance of conduction electron correlation in a Kondo lattice, Ce□CoSi□ *Journal of Physics Condensed Matter*, **2010**, 22, 255602	1.8	22
13	Tuning the magnetic properties of the multiferroic LuFe 2 O 4 by moderate thermal treatment. *Europhysics Letters*, **2010**, 90, 57007	1.6	18
12	Study of magnetic interactions in a geometrically frustrated compound, Sr 3 NiPtO 6 , using density functional approach. *Europhysics Letters*, **2009**, 88, 27002	1.6	5
11	Electronic structure of PrCoO3 and its temperature evolution. *Physical Review B*, **2008**, 77,	3.3	18
10	Investigation of the spin state of Co in LaCoO3 at room temperature: Ab initio calculations and high-resolution photoemission spectroscopy of single crystals. *Physical Review B*, **2008**, 77,	3.3	65
9	Unoccupied electronic states of LaCoO3 and PrCoO3 investigated using inverse photoemission spectroscopy and GGA+U calculations. *Physical Review B*, **2008**, 77,	3.3	16
8	Electronic and magnetic properties of a quasi-one-dimensional spin chain system Sr3NiRhO6. *Physical Review B*, **2008**, 78,	3.3	10
7	Doping and bond length contributions to Mn K-edge shift in La1 □x Sr x MnO3 (x=0□.7) and their correlation with electrical transport properties **2008**, 70, 359-366		5
6	A study of transition metal K-edge x-ray absorption spectra of LaBO3(B = Mn, Fe, Co, Ni), La2CuO4, and SrMnO3using partial density of states. *Journal of Physics Condensed Matter*, **2007**, 19, 036212	1.8	3
5	Electronic states of LaCoO3: Co K-edge and La L-edge x-ray absorption studies. *Journal of Physics Condensed Matter*, **2006**, 18, 7103-7113	1.8	7
4	Electronic states of PrCoO3: x-ray photoemission spectroscopy and LDA +Udensity of states studies. *Journal of Physics Condensed Matter*, **2006**, 18, 1313-1323	1.8	16
3	Local distortion in LaCoO3and PrCoO3: extended x-ray absorption fine structure, x-ray diffraction and x-ray absorption near edge structure studies. *Journal of Physics Condensed Matter*, **2006**, 18, 10617-10630	1.8	26
2	Synthesis and investigation of structural and electronic properties of Pr1□CaxFeO3 (0?x?0.2) compounds. *Physica B: Condensed Matter*, **2005**, 365, 47-54	2.8	22
1	Local distortion of MnO6octahedron in La1□SrxMnO3+□(x= 0.1□.9): an EXAFS study. *Journal of Physics Condensed Matter*, **2005**, 17, 6393-6404	1.8	20