Sudhir Kumar Pandey

List of Publications by Year
in descending order

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103	1,171	361045	500791
papers	citations	20 h-index	28 g-index

105	105	105	1204
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Investigation of the spin state of Co in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">La</mml:mi><mml:mi mathvariant="normal">Co</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>at room temperature:Ab initiocalculations and high-resolution photoemission spectroscopy of single crystals. Physical Review B, 2008, 77, .	1.1	73
2	Electronic depiction of magnetic origin in undoped and Fe doped TiO2â˜'d epitaxial thin films. Applied Physics Letters, 2011, 99, .	1.5	39
3	Understanding the thermoelectric properties of LaCoO₃compound. Philosophical Magazine, 2017, 97, 451-463.	0.7	39
4	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.	0.9	37
5	Investigation of thermoelectric properties of half-metallic Co₂MnGe by using first principles calculations. Journal of Physics Condensed Matter, 2014, 26, 215501.	0.7	33
6	Efficiency calculation of a thermoelectric generator for investigating the applicability of various thermoelectric materials. Journal of Renewable and Sustainable Energy, 2017, 9, .	0.8	33
7	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.	1.3	31
8	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.	0.7	29
9	Importance of conduction electron correlation in a Kondo lattice, Ce₂CoSi₃. Journal of Physics Condensed Matter, 2010, 22, 255602.	0.7	28
10	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.	1.4	28
11	Temperature dependence of thermoelectric power and thermal conductivity in ferromagnetic shape memory alloy<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ni</mml:mtext></mml:mrow><mml:mrow><mml:mn>50</mml:mn></mml:mrow> Physical Review B, 2010, 81, .	1.1	27
12	Kondo resonance in a magnetically ordered compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ce</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>Photoemission spectroscopy andab initioband structure calculations. Physical Review B, 2010, 82, .	1.1	27
13	Correlation induced half-metallicity in a ferromagnetic single-layered compound:<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Sr</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Physical Review B, 2010, 81, .	1.1	27
14	Local distortion of MnO6octahedron in La1â˜'xSrxMnO3+Î´(x= 0.1â€“0.9): an EXAFS study. Journal of Physics Condensed Matter, 2005, 17, 6393-6404.	0.7	26
15	Synthesis and investigation of structural and electronic properties of Pr1â˜'xCaxFeO3 (0â©½xâ©½0.2) compounds. Physica B: Condensed Matter, 2005, 365, 47-54.	1.3	24
16	Investigation of thermoelectric properties of ZnV₂O₄compound at high temperatures. Journal Physics D: Applied Physics, 2016, 49, 425601.	1.3	24
17	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.	1.4	23
18	Investigating the electronic structure of MSi (MÂ= Cr, Mn, Fe & Co) and calculating U & J by using cDFT. Computational Condensed Matter, 2018, 16, e00325.	0.9	23

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19	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.	2.5	22
20	Orbital ordering in the geometrically frustrated MgV2O4:Ab initioelectronic structure calculations. Physical Review B, 2011, 84, .	1.1	21
21	Effect of non-magnetic impurities on the magnetic states of anatase TiO₂. Journal of Physics Condensed Matter, 2011, 23, 276005.	0.7	21
22	Electronic structure ofPrCoO3and its temperature evolution. Physical Review B, 2008, 77, .	1.1	19
23	Electronic states of PrCoO3: x-ray photoemission spectroscopy and LDA +Udensity of states studies. Journal of Physics Condensed Matter, 2006, 18, 1313-1323.	0.7	18
24	Tuning the magnetic properties of the multiferroic LuFe 2 O 4 by moderate thermal treatment. Europhysics Letters, 2010, 90, 57007.	0.7	18
25	Strong electronâ€“phonon coupling and multiband effects in the superconductingÎ²-phase Mo_{1â^’x}Re_xalloys. New Journal of Physics, 2015, 17, 053003.	1.2	18
26	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.	1.0	18
27	Effect of pressure on the electronic and magnetic properties of CdV<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>: Density functional theory studies. Physical Review B, 2012, 86, .	1.1	17
28	Exploring the best scenario for understanding the high temperature thermoelectric behaviour of Fe₂VAl. Materials Research Express, 2019, 6, 026302.	0.8	17
29	Unoccupied electronic states of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">La</mml:mi><mml:mi mathvariant="normal">Co</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Pr</mml:mi><mml:mi mathvariant="normal">Co</mml:mi><mml:msub><mml:mi	1.1	16
30	Constrained DFT+U approach for understanding the magnetic behaviour of ACr2O4 (A=Zn, Mg, Cd and) Tj ETQq0 0 0 rgBT /Overlock 10	0.9	16
31	The influence of electron-phonon coupling and spin fluctuations on the superconductivity of the Ti-V alloys. European Physical Journal B, 2014, 87, 1.	0.6	15
32	Two functionals approach in DFT for the prediction of thermoelectric properties of Fe2ScX (Xâ€‰â€‰=â€‰â€‰P, As,) Tj ETQq0 0 0 r	0.7	15
33	Evidence of spin lattice coupling in MnTiO ₃ : An x-ray diffraction study. Europhysics Letters, 2015, 110, 27007.	0.7	14
34	Automated instrumentation for high-temperature Seebeck coefficient measurements. Instrumentation Science and Technology, 2017, 45, 366-381.	0.9	14
35	Fabrication of Simple Apparatus for Resistivity Measurement in High-Temperature Range 300â€“620 K. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 2169-2176.	2.4	14
36	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.	0.7	12

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37	Electronic and magnetic properties of a quasi-one-dimensional spin chain system<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Sr</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:msub> Physical Review B, 2008, 78, .	1.1	11
38	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.	0.9	11
39	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.	0.6	11
40	A detailed electronic structure study of Vanadium metal by using different beyond-DFT methods. European Physical Journal B, 2020, 93, 1.	0.6	11
41	Valence and origin of metalâ€“insulator 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.	1.4	10
42	Electronic structure near the quantum critical point in V-doped Cr â€”A high-resolution photoemission study. Europhysics Letters, 2012, 99, 37009.	0.7	10
43	Thermal properties and electronic structure of superconducting germanide skutterudites and : a multi-band perspective. Philosophical Magazine, 2016, 96, 2161-2175.	0.7	10
44	Thermoelectric properties, efficiency and thermal expansion of ZrNiSn half-Heusler by first-principles calculations. Journal of Physics Condensed Matter, 2020, 32, 355705.	0.7	10
45	Fabrication of setup for high temperature thermal conductivity measurement. Review of Scientific Instruments, 2017, 88, 015107.	0.6	9
46	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.	0.8	9
47	Effect of density functionals on the vibrational and thermodynamic properties of Fe2VAl and Fe2TiSn compounds. Computational Materials Science, 2018, 155, 282-287.	1.4	9
48	Instrument for simultaneous measurement of Seebeck coefficient and thermal conductivity in the temperature range 300â€“800 K with Python interfacing. Review of Scientific Instruments, 2022, 93, 043902.	0.6	9
49	Electronic states of LaCoO3: Co K-edge and La L-edge x-ray absorption studies. Journal of Physics Condensed Matter, 2006, 18, 7103-7113.	0.7	8
50	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.	0.9	8
51	Density matrix approach to the orbital ordering in the spinel vanadates: a case study. European Physical Journal B, 2014, 87, 1.	0.6	7
52	Electronic structure of Mo_{1â^'x}Re_xalloys studied through resonant photoemission spectroscopy. Journal of Physics Condensed Matter, 2016, 28, 315502.	0.7	7
53	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.	0.7	7
54	Doping and bond length contributions to Mn K-edge shift in La1 â^' x Sr x MnO3 (x=0â^'0.7) and their correlation with electrical transport properties. Pramana - Journal of Physics, 2008, 70, 359-366.	0.9	6

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55	Study of magnetic interactions in a geometrically frustrated compound, Sr 3 NiPtO 6 , using density functional approach. Europhysics Letters, 2009, 88, 27002.	0.7	6
56	Importance of Coulomb correlation and spin-orbit coupling in a5dpyrochlore:Pr2Ir2O7. Physical Review B, 2010, 82, .	1.1	6
57	Effect of nanostructure on thermoelectric properties of La_{0.7}Sr_{0.3}MnO₃ in 300â€“600 K temperature range. Materials Research Express, 2018, 5, 055026.	0.8	6
58	Enhancement in thermoelectric properties of n-type (La_{0.7}Sr_{0.3}MnO₃)_{0.5}.(NiO)_{0.5}: composite and nano-structure effect. Journal Physics D: Applied Physics, 2022, 55, 065503.	1.3	6
59	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.	0.7	5
60	Spectral evolution in an insulator exhibiting linear specific heat. New Journal of Physics, 2010, 12, 033003.	1.2	5
61	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.	1.0	5
62	Automated instrumentation for the determination of the high-temperature thermoelectric figure-of-merit. Instrumentation Science and Technology, 2018, 46, 600-613.	0.9	5
63	Investigating the effect of temperature dependent many-body interactions on electronic structures of SnTe in the Matsubara-time domain. Journal of Physics Condensed Matter, 2021, 33, 225505.	0.7	5
64	Anab initio study of topological and transport properties of YAuPb. Journal of Physics Condensed Matter, 2021, 33, 475503.	0.7	5
65	Nitrogen- and fluorine-doped ZrO2: a promising pâ€“n junction for an ultraviolet light-emitting diode. Journal of Physics Condensed Matter, 2012, 24, 335801.	0.7	4
66	Implication of local moment at Ti and Fe sites for the electrical and magneto-transport properties of degenerate semiconducting Ti1â^'xFexO2â^'depitaxial films. Journal of Physics Condensed Matter, 2012, 24, 056004.	0.7	4
67	Electronic structure study of vanadium spinels by using density functional theory and dynamical-mean-field theory. Europhysics Letters, 2017, 117, 37002.	0.7	4
68	Role of orbital degrees of freedom in investigating the magnetic properties of geometrically frustrated vanadium spinels. Computational Materials Science, 2017, 126, 373-381.	1.4	4
69	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.	0.6	4
70	Studying the lifetime of charge and heat carriers due to intrinsic scattering mechanisms in FeVSb half-Heusler thermoelectric. Journal of Physics Condensed Matter, 2021, 33, 265702.	0.7	4
71	Understanding the temperature- and pressure-dependent electronic properties of FeSi: DFT + DMFT study. Europhysics Letters, 2020, 132, 37003.	0.7	4
72	Recent Advances in Energy Harvesting from Waste Heat Using Emergent Thermoelectric Materials. , 2022, , 155-184.		4

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73	Interfacing of high temperature Z-meter setup using python. AIP Conference Proceedings, 2017, , .	0.3	3
74	Theoretical study of thermopower behavior of LaFeO3 compound in high temperature region. AIP Conference Proceedings, 2018, , .	0.3	3
75	Internal strain induced superconductivity in arc melted Ti_{0.97}Fe_{0.03} alloy. Superconductor Science and Technology, 2018, 31, 085004.	1.8	3
76	Studying the Seebeck coefficient of Fe2VAl compound in the high temperature region. AIP Conference Proceedings, 2019, , .	0.3	3
77	Electronic correlation effect on nontrivial topological fermions in CoSi. European Physical Journal B, 2021, 94, 1.	0.6	3
78	Coexistence of non-Fermi liquid behavior and biquadratic exchange coupling in La-substituted CeGe: Nonlinear susceptibility and DFT+DMFT study. Physical Review B, 2020, 102, .	1.1	3
79	Experimental and computational approaches to study the high temperature thermoelectric properties of novel topological semimetal CoSi. Journal of Physics Condensed Matter, 2022, , .	0.7	3
80	Evidence of phase stability, topological phonon and temperature-induced topological phase transition in rocksalt SnS and SnSe. Journal of Physics Condensed Matter, 2022, 34, 325601.	0.7	3
81	The importance of temperature dependent energy gap in the understanding of high temperature thermoelectric properties. Materials Research Express, 2016, 3, 105501.	0.8	2
82	An important role of temperature dependent scattering time in understanding the high temperature thermoelectric behavior of strongly correlated system: La_{0.75}Ba_{0.25}CoO₃. Journal of Physics Condensed Matter, 2017, 29, 105601.	0.7	2
83	Calculation of effective Coulomb interaction in PrCoO3. AIP Conference Proceedings, 2018, , .	0.3	2
84	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.	1.3	2
85	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.	0.9	2
86	Understanding the Seebeck coefficient of LaNiO₃ compound in the temperature range 300â€“620 K. Journal of Physics Condensed Matter, 2022, 34, 125702.	0.7	2
87	First-principles phonon calculations for lattice dynamics, thermal expansion and lattice thermal conductivity of CoSi in the high temperature region. Europhysics Letters, 2022, 137, 66002.	0.7	2
88	Exploring temperature dependent electronâ€“electron interaction of rocksalt SnS and SnSe within Matsubara-time domain. Journal of Physics Condensed Matter, 2022, 34, 245501.	0.7	2
89	Pressure-induced spin state transition in BiFeO3: an ab initio electronic structure calculation. EPJ Applied Physics, 2014, 67, 20602.	0.3	1
90	The role of ionic sizes in inducing the cubic to tetragonal distortion inAV2O4andACr2O4(A= Zn, Mg) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.8	1

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91	Studying the hopping parameters of half-Heusler NaAuS using maximally localized Wannier function. AIP Conference Proceedings, 2018, , .	0.3	1
92	Electronic structure and phonon properties of Fe2ScAs full-Heusler alloy. AIP Conference Proceedings, 2019, , .	0.3	1
93	Exploring the suitable theoretical approach for understanding the electronic and magnetic properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e519" altimg="si198.svg"><mml:mi>Î±</mml:mi></mml:math>-Iron. Physica B: Condensed Matter, 2022, 636, 413785.	1.3	1
94	First-principles calculations to investigate transport properties of non-trivial fermions of CoSi. Computational Condensed Matter, 2022, 31, e00686.	0.9	1
95	Inverse photoemission spectroscopic studies on phase separated La 0.2 Sr 0.8 MnO 3. Solid State Communications, 2015, 217, 70-73.	0.9	0
96	Fabrication of a simple apparatus for the Seebeck coefficient measurement in temperature range 300-600â€…K. AIP Conference Proceedings, 2017, , .	0.3	0
97	Lattice stability and thermal properties of Fe2VAl and Fe2TiSn Heusler compounds. AIP Conference Proceedings, 2018, , .	0.3	0
98	Studying the topological properties of Half-Heusler NaAuS compound. AIP Conference Proceedings, 2019, , .	0.3	0
99	DFT study of 3d transition metal-doping effect in wurtzite-ZnO for photovoltaic applications. AIP Conference Proceedings, 2019, , .	0.3	0
100	Studying the electronic structure of FeSi & CoSi by using DFT+DMFT. AIP Conference Proceedings, 2019, , .	0.3	0
101	Investigating the thermoelectric properties of Na0.74Co1â^'xNb O2 (xâ€=â€0.05,0.10) at high temperature region. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126893.	0.9	0
102	Theory of energy conversion between heat and electricity. , 2021, , 21-53.		0
103	Optimization of Hybridization Strategy for Improving the Efficiency of Thermoelectric Generator to Recover Automobile Exhaust Waste Heat. Engineering Research Express, 0, , .	0.8	0