Tahir Mohiuddin Bhat

List of Publications by Year
in descending order

90 papers	2,529 citations	136740 32 h-index	223531 46 g-index
91 all docs	91 docs citations	91 times ranked	720 citing authors

#	Article	IF	Citations
1	Structural, elastic and thermo-electronic properties of paramagnetic perovskite PbTaO₃. RSC Advances, 2016, 6, 48009-48015.	1.7	146
2	Robust thermoelectric performance and high spin polarisation in CoMnTiAl and FeMnTiAl compounds. RSC Advances, 2016, 6, 80302-80309.	1.7	108
3	Investigation of electronic, magnetic and thermoelectric properties of Zr 2 NiZ (ZÂ=ÂAl,Ga) ferromagnets. Materials Chemistry and Physics, 2017, 192, 33-40.	2.0	104
4	Investigation of the transport, structural and mechanical properties of half-metallic REMnO₃ (RE = Ce and Pr) ferromagnets. RSC Advances, 2016, 6, 97641-97649.	1.7	80
5	Transport, Structural and Mechanical Properties of Quaternary FeVTiAl Alloy. Journal of Electronic Materials, 2016, 45, 6012-6018.	1.0	70
6	Electronic structure, magnetism and thermoelectricity in layered perovskites: Sr 2 SnMnO 6 and Sr 2 SnFeO 6. Journal of Magnetism and Magnetic Materials, 2017, 441, 166-173.	1.0	65
7	Investigation of electronic structure, magnetic and transport properties of half-metallic Mn2CuSi and Mn2ZnSi Heusler alloys. Journal of Magnetism and Magnetic Materials, 2015, 395, 81-88.	1.0	63
8	Electronic structure, magnetism and thermoelectric properties of double perovskite Sr 2 HoNbO 6. Journal of Magnetism and Magnetic Materials, 2018, 458, 176-182.	1.0	63
9	Magneto-electronic, thermal, and thermoelectric properties of some Co-based quaternary alloys. Journal of Physics and Chemistry of Solids, 2018, 112, 190-199.	1.9	61
10	Structural, elastic and magneto-electronic properties of half-metallic BaNpO 3 perovskite. Materials Chemistry and Physics, 2017, 198, 380-385.	2.0	60
11	Understanding the origin of halfâ€metallicity and thermophysical properties of ductile La ₂ CuMnO ₆ double perovskite. International Journal of Energy Research, 2019, 43, 4783-4796.	2.2	59
12	High Pressure-Temperature study on thermodynamics, half-metallicity, transport, elastic and structural properties of Co-based Heusler alloys: A first-principles study. Journal of Solid State Chemistry, 2020, 284, 121178.	1.4	59
13	Thermoelectric and mechanical properties of gapless Zr2MnAl compound. Indian Journal of Physics, 2017, 91, 33-41.	0.9	57
14	Potential lead-free small band gap halide double perovskites Cs2CuMCl6 (Mâ€‰=â€‰Sb, Bi) for green technology. Scientific Reports, 2021, 11, 12945.	1.6	51
15	Full-potential study of Fe2NiZ (ZÂ=ÂAl, Si, Ga, Ge). Materials Chemistry and Physics, 2014, 146, 303-312.	2.0	50
16	Effect of on-site Coulomb interaction on electronic and transport properties of 100% spin polarized CoMnVAs. Journal of Magnetism and Magnetic Materials, 2017, 435, 173-178.	1.0	48
17	Insight into half-metallicity, spin-polarization and mechanical properties of L21 structured MnY2Z (Z=) Tj ETQq1 1 0.784314 rgBT /Ov	2.8	48
18	Full Heusler alloys (Co2TaSi and Co2TaGe) as potential spintronic materials with tunable band profiles. Journal of Solid State Chemistry, 2019, 270, 173-179.	1.4	45

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19	DFT investigations on mechanical stability, electronic structure and magnetism in Co₂TaZ (Z = Al, Ga, In) heusler alloys. Semiconductor Science and Technology, 2017, 32, 125019.	1.0	44
20	Magneto-electronic, mechanical, thermoelectric and thermodynamic properties of ductile perovskite Ba2SmNbO6. Materials Chemistry and Physics, 2020, 239, 121983.	2.0	44
21	New ferromagnetic half-metallic perovskites for spintronic applications: BaMO₃ (M = Mg) Tj ETQq1 1 0.784314 rgBT /Over	1.7	44
22	Analysis of Cage Structured Halide Double Perovskites Cs2NaMCl6 (MÂ= Ti, V) by Spin Polarized Calculations. Journal of Alloys and Compounds, 2021, 854, 156000.	2.8	44
23	Investigation of structural, elastic, thermophysical, magnetoâ€electronic, and transport properties of newly tailored Mnâ€based Heuslers: A density functional theory study. International Journal of Quantum Chemistry, 2020, 120, e26216.	1.0	42
24	Investigation of high pressure and temperature study of thermo-physical properties in semiconducting Fe2ZrSi Heusler. Physica B: Condensed Matter, 2020, 577, 411792.	1.3	40
25	Systematic investigation of the magneto-electronic structure and optical properties of new halide double perovskites Cs₂NaMCl₆ (M = Mn, Co and Ni) by spin polarized calculations. RSC Advances, 2020, 10, 26277-26287.	1.7	40
26	Investigation of structural, magnetoâ€electronic, and thermoelectric response of ductile SnAlO₃ from highâ€throughput DFT calculations. International Journal of Quantum Chemistry, 2017, 117, e25351.	1.0	39
27	Exploration of uranium double perovskites Ba2MUO6 (Mâ€¯=â€¯Co, Ni) for magnetism, spintronic and thermoelectric applications. Journal of Magnetism and Magnetic Materials, 2020, 493, 165722.	1.0	39
28	Study of ferromagnetism, spin-polarization, thermoelectrics and thermodynamics of layered perovskite Ba2FeMnO6 under pressure and temperature. Journal of Physics and Chemistry of Solids, 2019, 135, 109079.	1.9	37
29	Scrutinizing the stability and exploring the dependence of thermoelectric properties on band structure of 3d-3d metal-based double perovskites Ba2FeNiO6 and Ba2CoNiO6. Scientific Reports, 2021, 11, 10506.	1.6	35
30	Prediction of robustness of electronic, magnetic and thermoelectric properties under pressure and temperature variation in Co2MnAs alloy. Computational Condensed Matter, 2019, 19, e00375.	0.9	34
31	Understanding Ferromagnetic Phase Stability, Electronic and Transport Properties of BaPaO3 and BaNpO3 from Ab-Initio Calculations. Journal of Electronic Materials, 2017, 46, 5531-5539.	1.0	33
32	Lanthanum based quaternary Heusler alloys LaCoCrX (Xâ€¯=â€¯Al, Ga): Hunt for half-metallicity and high thermoelectric efficiency. Results in Physics, 2019, 13, 102300.	2.0	33
33	Effect of pressure on electronic, magnetic, thermodynamic, and thermoelectric properties of tantalumâ€based double perovskites Ba ₂ MTaO ₆ (MÂ=ÂMn, Cr). International Journal of Energy Research, 2019, 43, 4229-4242.	2.2	32
34	A first-principles study of RuMn2Si: Magnetic, electronic and mechanical properties. Journal of Alloys and Compounds, 2013, 575, 292-296.	2.8	30
35	Magnetic, electronic, high-spin polarization and half-metallic properties of Ru2VGe and Ru2VSb Heusler alloys: An FP-LAPW study. Journal of Magnetism and Magnetic Materials, 2015, 374, 209-213.	1.0	30
36	First-principal study of full Heusler alloys Co 2 VZ (Z = As, In). Journal of Magnetism and Magnetic Materials, 2017, 435, 107-116.	1.0	30

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37	Magneto-Electronic, Thermodynamic, and Thermoelectric Properties of 5f-Electron System BaBkO3. Journal of Superconductivity and Novel Magnetism, 2019, 32, 1751-1759.	0.8	29
38	First-principles study of high spin-polarization and thermoelectric efficiency of ferromagnetic CoFeCrAs quaternary Heusler alloy. Journal of Magnetism and Magnetic Materials, 2018, 449, 493-499.	1.0	28
39	Study of the magneto-electronic, optical, thermal and thermoelectric applications of double perovskites Ba₂MTaO₆ (M = Er, Tm). RSC Advances, 2019, 9, 15852-15867.	1.7	28
40	Electronic, magnetic, elastic and thermodynamic properties of Cu2MnGa. Journal of Magnetism and Magnetic Materials, 2016, 411, 120-127.	1.0	27
41	Magneto-electronic and thermoelectric properties of some Fe-based Heusler alloys. Journal of Physics and Chemistry of Solids, 2018, 119, 251-257.	1.9	27
42	Quaternary Heusler alloys a future perspective for revolutionizing conventional semiconductor technology. Journal of Alloys and Compounds, 2021, 871, 159560.	2.8	24
43	Structural, elastic, thermodynamic and thermoelectric properties of Fe2TiSn Heusler alloy: High pressure study. Results in Physics, 2019, 12, 15-20.	2.0	23
44	Exploration of highly correlated Coâ€based quaternary Heusler alloys for spintronics and thermoelectric applications. International Journal of Energy Research, 2019, 43, 8864.	2.2	22
45	Magneto-electronic, thermoelectric, thermodynamic and optical properties of rare earth YCoTiX (XÂ=) Tj ETQq1 1 0.784314 rgBT /Ov	2.8	21
46	Ternary germanide Li2ZnGe: A new candidate for high temperature thermoelectrics. Journal of Alloys and Compounds, 2018, 738, 501-508.	2.8	19
47	Insight into mechanical properties and thermoelectric efficiency of Zr2CoZ (Zâ€‰â€‰=â€‰â€‰Si, Ge) Heusler alloys. Materials Research Express, 2017, 4, 116307.	0.8	18
48	Analysis of electronic, thermal, and thermoelectric properties of the half-Heusler CrTiSi material using density functional theory. Journal of Physics and Chemistry of Solids, 2018, 119, 281-287.	1.9	18
49	Temperature and pressure dependent structural and thermo-physical properties of quaternary CoVTiAl alloy. Journal of Physics and Chemistry of Solids, 2017, 108, 109-114.	1.9	17
50	First principle study of mechanical stability, magneto-electronic and thermodynamic properties of double perovskites: A2MgWO6 (Aâ€²=â€²Ca, Sr). Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2019, 250, 114434.	1.7	16
51	<scp>Smallâ€band</scp> gap halide double perovskite for optoelectronic properties. International Journal of Energy Research, 2021, 45, 7222-7234.	2.2	15
52	Structural and mechanical stabilities, electronic, magnetic and thermophysical properties of double perovskite <scp> Ba ₂ LaNbO ₆ </scp> : Probed by <scp>DFT</scp> computation. International Journal of Energy Research, 2021, 45, 14603-14611.	2.2	15
53	Insight view of double perovskites <scp> Ba ₂ XNbO ₆ </scp> (XÂ=ÂHo,Yb) for spintronics and thermoelectric applications. International Journal of Energy Research, 2021, 45, 13338-13354.	2.2	14
54	Pursuit of thermoelectric properties in L21 structured Co2PAl (P = Ru, Rh) ductile ferromagnetic materials: A first principles prospective. Journal of Solid State Chemistry, 2021, 296, 121942.	1.4	13

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55	New isostructural halide double perovskites Cs2GeNiX6 (X= Cl, Br) for semiconductor spintronics and thermoelectric advancements. Journal of Solid State Chemistry, 2021, 300, 122196.	1.4	13
56	Chemical Potential Evaluation of Thermoelectric and Mechanical Properties of Zr2CoZ (ZÂ=ÂSi, Ge) Heusler Alloys. Journal of Electronic Materials, 2018, 47, 2468-2478.	1.0	12
57	Pressure- and Temperature-Dependent Study of Heusler Alloys Cu2MGa (MÂ=ÂCr and V). Journal of Electronic Materials, 2017, 46, 2185-2195.	1.0	11
58	Electronic and Transport Properties of LaNi4Sb12 Skutterudite: Modified Beckeâ€“Johnson Approach. Journal of Electronic Materials, 2018, 47, 4544-4549.	1.0	11
59	Investigation of structural and mechanical properties of ferromagnetic Co2MnAs compound. AIP Conference Proceedings, 2019, , .	0.3	11
60	Structural, Magnetoâ€electronic, Mechanical, and Thermophysical Properties of Double Perovskite Ba₂ZnReO₆. Physica Status Solidi (B): Basic Research, 2019, 256, 1800625.	0.7	11
61	Investigation of Electronic, Magnetic, Thermodynamic, and Thermoelectric Properties of Half-Metallic XLiSn (X = Ce, Nd) Alloys. Journal of Superconductivity and Novel Magnetism, 2019, 32, 2009-2019.	0.8	11
62	Comprehensive DFT investigation of transition-metal-based new quaternary Heusler alloys CoNbMnZ (Z = Ge, Sn): compatible for spin-dependent and thermoelectric applications. RSC Advances, 2020, 10, 43870-43881.	1.7	11
63	Intrinsic magnetism and thermoelectric applicability of novel halide perovskites Cs2GeMnX6 (XÂ=ÂCl,) Tj ETQq1 1 0.784314 rgBT /Ov Engineering B: Solid-State Materials for Advanced Technology, 2021, 265, 114985.	1.7	11
64	Analysis of mechanical, thermodynamic, and thermoelectric properties of ferromagnetic SrFe4As12 skutterudite. Journal of Solid State Chemistry, 2018, 266, 274-278.	1.4	10
65	Electronic, elastic and thermoelectric performance in n-type Sr-filled brittle skutterudite. Physica B: Condensed Matter, 2020, 592, 412209.	1.3	10
66	Effect of variation of metal and nonâ€metal elements on various properties of rareâ€earthâ€based inverse perovskites Gd₃XY (X = Ga, In and Y = B, N). International Journal of Quantum Chemistry, 2020, 120, e26197.	1.0	10
67	Understanding the origin of semiconducting ferromagnetic character along with the high figure of merit in Cs2NaMCl6 (MÂ=ÂCr, Fe) double perovskites. Journal of Magnetism and Magnetic Materials, 2021, 519, 167431.	1.0	10
68	Robustness in ferromagnetic phase stability, halfâ€metallic behavior and transport properties of cobaltâ€based <scp>fullâ€Heuslers</scp> compounds: A first principles approach. International Journal of Quantum Chemistry, 2021, 121, e26538.	1.0	10
69	Thermal, electronic and ductile properties of lead-chalcogenides under pressure. Journal of Molecular Modeling, 2013, 19, 3481-3489.	0.8	9
70	Effect of High Pressure and Temperature on Structural, Thermodynamic and Thermoelectric Properties of Quaternary CoFeCrAl Alloy. Journal of Electronic Materials, 2018, 47, 2042-2049.	1.0	9
71	Investigation of spin polarized band structure, magnetism, and mechanical properties of new gapless Zr2NbX (X= Al, Ga, In) Heusler alloys. Journal of Alloys and Compounds, 2018, 766, 241-247.	2.8	9
72	Analysing cation-modified magnetic perovskites A₂SnFeO₆(A = Ca, Ba): a DFT study. RSC Advances, 2021, 11, 27499-27511.	1.7	9

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73	Analysis of magneto-electronic, thermodynamic and thermoelectric properties of ferromagnetic CoFeCrAl alloy. Materials Research Express, 2017, 4, 116103.	0.8	8
74	Insight into various properties of rareâ€earthâ€“based inverse perovskites Gd ₃ AlX (X = B, N). International Journal of Energy Research, 2020, 44, 1654-1672.	2.2	8
75	Effect of High Pressure and Temperature on Magneto-Electronic, Thermodynamic, and Transport Properties of Antiferromagnetic HoPdX (Xâ€‰=â€‰As, Ge) Alloys. Journal of Superconductivity and Novel Magnetism, 2019, 32, 2051-2065.	0.8	7
76	Systematic understanding of f â€electronâ€“based semiconducting actinide perovskites Ba ₂ MgMO ₆ (M = U, Np) from DFT ab initio calculations. International Journal of Energy Research, 2020, 44, 3066-3081.	2.2	7
77	High-Pressure and Temperature Dependence of Electronic, Magnetic, Elastic, Thermodynamic, and Transport Properties of Full-Heusler Alloys Co2YIn (Y = Nb, Zr). Journal of Superconductivity and Novel Magnetism, 2018, 31, 2465-2483.	0.8	6
78	Half-metallicity and onsite Hubbard interaction on d-electronic states: a case study of Fe2NiZ (Zâ€‰=â€‰Al,) Tj ETQq0 0 0 rgBT /Overl	0.7	5
79	Electronic structure, mechanical, thermoelectric, optical, and thermodynamic properties of yttriumâ€based quaternary Heusler alloys. International Journal of Energy Research, 2019, 43, 8633.	2.2	4
80	Insight into structural, electronic and thermoelectric properties of Zr2MnX (X = Ga, In) Heuslers. Materials Research Express, 2019, 6, 046530.	0.8	4
81	Structural and magnetic stability of Fe2NiSi. , 2014, , .		3
82	Study of Electronic, Magnetic, and Thermoelectric Properties of 24 Valence-Electron Fe2TiSn Heusler Compound Using Modified Becke-Johnson Scheme. Journal of Superconductivity and Novel Magnetism, 2018, 31, 3263-3267.	0.8	2
83	Exploring the magneto-electronic, mechanical, optical and thermoelectric performance of paramagnetic Ba₂TmSbO₆. Materials Research Express, 2019, 6, 126565.	0.8	2
84	Insight view of magneto-electronic, mechanical and thermophysical properties of novel filled skutterudites LiFe4X12 (X = As, Sb) via ab-initio calculations. Journal of Solid State Chemistry, 2021, 301, 122308.	1.4	2
85	Variation of magnetism and half-metallicity in Ru2VSi with lattice expansion. AIP Conference Proceedings, 2015, , .	0.3	1
86	Investigation of <scp>SGS</scp> alloys <scp>CoNbMnZ</scp> (<scp>ZÂ=ÂAs, Sb</scp>) suitable for dissipationless spintronic devices and thermoelectric technology. International Journal of Quantum Chemistry, 2022, 122, .	1.0	1
87	FPLAPW approach to high pressure mechanical and thermal behavior of HfN. , 2014, , .		0
88	Ferromagnetism in half-metallic quaternary FeVTiAl Heusler compound. AIP Conference Proceedings, 2016, , .	0.3	0
89	Transport properties of spin polarised quaternary CoMnVAs alloy. AIP Conference Proceedings, 2017, , .	0.3	0
90	Band gap depiction of quaternary FeMnTiAl alloy using Hubbard (U) potential. AIP Conference Proceedings, 2018, , .	0.3	0