

# Tahir Mohiuddin Bhat

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Investigation of <sc>SGS</sc> alloys <sc>CoNbMnZ</sc> (<sc>Z=As, Sb</sc>) suitable for dissipationless spintronic devices and thermoelectric technology. International Journal of Quantum Chemistry, 2022, 122, .	1.0	1
2	Analysis of Cage Structured Halide Double Perovskites Cs <sub>2</sub> NaMCl <sub>6</sub> (M= Ti, V) by Spin Polarized Calculations. Journal of Alloys and Compounds, 2021, 854, 156000.	2.8	44
3	Understanding the origin of semiconducting ferromagnetic character along with the high figure of merit in Cs <sub>2</sub> NaMCl <sub>6</sub> (M=Cr, Fe) double perovskites. Journal of Magnetism and Magnetic Materials, 2021, 519, 167431.	1.0	10
4	Robustness in ferromagnetic phase stability, half-metallic behavior and transport properties of cobalt-based <sc>full</sc> Heuslers compounds: A first principles approach. International Journal of Quantum Chemistry, 2021, 121, e26538.	1.0	10
5	<sc>Small</sc> band gap halide double perovskite for optoelectronic properties. International Journal of Energy Research, 2021, 45, 7222-7234.	2.2	15
6	Analysing cation-modified magnetic perovskites A <sub>2</sub> SnFeO <sub>6</sub> (A = Ca, Ba): a DFT study. RSC Advances, 2021, 11, 27499-27511.	1.7	9
7	Intrinsic magnetism and thermoelectric applicability of novel halide perovskites Cs <sub>2</sub> GeMnX <sub>6</sub> (X=Cl, Br) / Over Engineering B: Solid-State Materials for Advanced Technology, 2021, 265, 114985.	0.784314	11
8	Insight view of double perovskites <sc>Ba</sc> XNbO <sub>6</sub> (<sc>X=Ho, Yb</sc>) for spintronics and thermoelectric applications. International Journal of Energy Research, 2021, 45, 13338-13354.	2.2	14
9	Structural and mechanical stabilities, electronic, magnetic and thermophysical properties of double perovskite <sc>Ba</sc> LaNbO <sub>6</sub> : Probed by <sc>DFT</sc> computation. International Journal of Energy Research, 2021, 45, 14603-14611.	2.2	15
10	Pursuit of thermoelectric properties in L21 structured Co <sub>2</sub> PAI (P = Ru, Rh) ductile ferromagnetic materials: A first principles prospective. Journal of Solid State Chemistry, 2021, 296, 121942.	1.4	13
11	Scrutinizing the stability and exploring the dependence of thermoelectric properties on band structure of 3d-3d metal-based double perovskites Ba <sub>2</sub> FeNiO <sub>6</sub> and Ba <sub>2</sub> CoNiO <sub>6</sub> . Scientific Reports, 2021, 11, 10506.	1.6	35
12	Potential lead-free small band gap halide double perovskites Cs <sub>2</sub> CuMCl <sub>6</sub> (M=As, Sb, Bi) for green technology. Scientific Reports, 2021, 11, 12945.	1.6	51
13	Quaternary Heusler alloys a future perspective for revolutionizing conventional semiconductor technology. Journal of Alloys and Compounds, 2021, 871, 159560.	2.8	24
14	New isostructural halide double perovskites Cs <sub>2</sub> GeNiX <sub>6</sub> (X= Cl, Br) for semiconductor spintronics and thermoelectric advancements. Journal of Solid State Chemistry, 2021, 300, 122196.	1.4	13
15	Insight view of magneto-electronic, mechanical and thermophysical properties of novel filled skutterudites LiFe <sub>4</sub> X <sub>12</sub> (X = As, Sb) via ab-initio calculations. Journal of Solid State Chemistry, 2021, 301, 122308.	1.4	2
16	Investigation of high pressure and temperature study of thermo-physical properties in semiconducting Fe <sub>2</sub> ZrSi Heusler. Physica B: Condensed Matter, 2020, 577, 411792.	1.3	40
17	Magneto-electronic, mechanical, thermoelectric and thermodynamic properties of ductile perovskite Ba <sub>2</sub> SmNbO <sub>6</sub> . Materials Chemistry and Physics, 2020, 239, 121983.	2.0	44
18	Exploration of uranium double perovskites Ba <sub>2</sub> MUO <sub>6</sub> (M=Co, Ni) for magnetism, spintronic and thermoelectric applications. Journal of Magnetism and Magnetic Materials, 2020, 493, 165722.	1.0	39

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19	Systematic understanding of <i>d</i> -electron-based semiconducting actinide perovskites $\text{BaMgMO}_6$ (M = U, Np) from DFT ab initio calculations. International Journal of Energy Research, 2020, 44, 3066-3081.	2.2	7
20	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
21	Insight into various properties of rare-earth-based inverse perovskites $\text{Gd}_3\text{AlX}$ (X = B, N). International Journal of Energy Research, 2020, 44, 1654-1672.	2.2	8
22	New ferromagnetic half-metallic perovskites for spintronic applications: $\text{BaMO}_3$ (M = Mg) $T_{\text{ETQ}} = 0.0 \text{ K}$ , $T_{\text{BT}} = 10 \text{ K}$	1.7	44
23	Systematic investigation of the magneto-electronic structure and optical properties of new halide double perovskites $\text{Cs}_2\text{NaMCl}_6$ (M = Mn, Co and Ni) by spin polarized calculations. RSC Advances, 2020, 10, 26277-26287.	1.7	40
24	Comprehensive DFT investigation of transition-metal-based new quaternary Heusler alloys $\text{CoNbMnZ}$ (Z = Ge, Sn): compatible for spin-dependent and thermoelectric applications. RSC Advances, 2020, 10, 43870-43881.	1.7	11
25	Electronic, elastic and thermoelectric performance in n-type Sr-filled brittle skutterudite. Physica B: Condensed Matter, 2020, 592, 412209.	1.3	10
26	Investigation of structural, elastic, thermophysical, magneto-electronic, and transport properties of newly tailored Mn-based Heuslers: A density functional theory study. International Journal of Quantum Chemistry, 2020, 120, e26216.	1.0	42
27	Effect of variation of metal and non-metal elements on various properties of rare-earth-based inverse perovskites $\text{Gd}_3\text{XY}$ (X = Ga, In and Y = B, N). International Journal of Quantum Chemistry, 2020, 120, e26197.	1.0	10
28	Investigation of structural and mechanical properties of ferromagnetic $\text{Co}_2\text{MnAs}$ compound. AIP Conference Proceedings, 2019, . .	0.3	11
29	Magneto-electronic, thermoelectric, thermodynamic and optical properties of rare earth $\text{YCoTiX}$ (X = ) $T_{\text{ETQ}} = 1.0 \text{ K}$ , $T_{\text{BT}} = 21 \text{ K}$	2.8	21
30	Study of ferromagnetism, spin-polarization, thermoelectrics and thermodynamics of layered perovskite $\text{Ba}_2\text{FeMnO}_6$ under pressure and temperature. Journal of Physics and Chemistry of Solids, 2019, 135, 109079.	1.9	37
31	Exploration of highly correlated Co-based quaternary Heusler alloys for spintronics and thermoelectric applications. International Journal of Energy Research, 2019, 43, 8864.	2.2	22
32	First principle study of mechanical stability, magneto-electronic and thermodynamic properties of double perovskites: $\text{A}_2\text{MgWO}_6$ (A = Ca, Sr). Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2019, 250, 114434.	1.7	16
33	Electronic structure, mechanical, thermoelectric, optical, and thermodynamic properties of yttrium-based quaternary Heusler alloys. International Journal of Energy Research, 2019, 43, 8633.	2.2	4
34	Understanding the origin of half-metallicity and thermophysical properties of ductile $\text{La}_2\text{CuMnO}_6$ double perovskite. International Journal of Energy Research, 2019, 43, 4783-4796.	2.2	59
35	Study of the magneto-electronic, optical, thermal and thermoelectric applications of double perovskites $\text{Ba}_2\text{MTaO}_6$ (M = Er, Tm). RSC Advances, 2019, 9, 15852-15867.	1.7	28
36	Effect of pressure on electronic, magnetic, thermodynamic, and thermoelectric properties of tantalum-based double perovskites $\text{Ba}_2\text{MTaO}_6$ (M = Mn, Cr). International Journal of Energy Research, 2019, 43, 4229-4242.	2.2	32

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37	Structural, Magneto-electronic, Mechanical, and Thermophysical Properties of Double Perovskite $\text{Ba}_2\text{ZnReO}_6$ . <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800625.	0.7	11
38	Lanthanum based quaternary Heusler alloys $\text{LaCoCrX}$ ( $X = \text{Al, Ga}$ ): Hunt for half-metallicity and high thermoelectric efficiency. <i>Results in Physics</i> , 2019, 13, 102300.	2.0	33
39	Half-metallicity and onsite Hubbard interaction on d-electronic states: a case study of $\text{Fe}_2\text{NiZ}$ ( $Z = \text{Al, Ga}$ ). <i>Journal of Applied Physics</i> , 2019, 125, 154101.	0.7	5
40	Prediction of robustness of electronic, magnetic and thermoelectric properties under pressure and temperature variation in $\text{Co}_2\text{MnAs}$ alloy. <i>Computational Condensed Matter</i> , 2019, 19, e00375.	0.9	34
41	Exploring the magneto-electronic, mechanical, optical and thermoelectric performance of paramagnetic $\text{Ba}_2\text{TmSbO}_6$ . <i>Materials Research Express</i> , 2019, 6, 126565.	0.8	2
42	Insight into structural, electronic and thermoelectric properties of $\text{Zr}_2\text{MnX}$ ( $X = \text{Ga, In}$ ) Heuslers. <i>Materials Research Express</i> , 2019, 6, 046530.	0.8	4
43	Structural, elastic, thermodynamic and thermoelectric properties of $\text{Fe}_2\text{TiSn}$ Heusler alloy: High pressure study. <i>Results in Physics</i> , 2019, 12, 15-20.	2.0	23
44	Full Heusler alloys ( $\text{Co}_2\text{TaSi}$ and $\text{Co}_2\text{TaGe}$ ) as potential spintronic materials with tunable band profiles. <i>Journal of Solid State Chemistry</i> , 2019, 270, 173-179.	1.4	45
45	Investigation of Electronic, Magnetic, Thermodynamic, and Thermoelectric Properties of Half-Metallic $\text{XLiSn}$ ( $X = \text{Ce, Nd}$ ) Alloys. <i>Journal of Superconductivity and Novel Magnetism</i> , 2019, 32, 2009-2019.	0.8	11
46	Effect of High Pressure and Temperature on Magneto-Electronic, Thermodynamic, and Transport Properties of Antiferromagnetic $\text{HoPdX}$ ( $X = \text{As, Ge}$ ) Alloys. <i>Journal of Superconductivity and Novel Magnetism</i> , 2019, 32, 2051-2065.	0.8	7
47	Magneto-Electronic, Thermodynamic, and Thermoelectric Properties of 5f-Electron System $\text{BaBkO}_3$ . <i>Journal of Superconductivity and Novel Magnetism</i> , 2019, 32, 1751-1759.	0.8	29
48	Analysis of electronic, thermal, and thermoelectric properties of the half-Heusler $\text{CrTiSi}$ material using density functional theory. <i>Journal of Physics and Chemistry of Solids</i> , 2018, 119, 281-287.	1.9	18
49	Magneto-electronic and thermoelectric properties of some Fe-based Heusler alloys. <i>Journal of Physics and Chemistry of Solids</i> , 2018, 119, 251-257.	1.9	27
50	Study of Electronic, Magnetic, and Thermoelectric Properties of 24 Valence-Electron $\text{Fe}_2\text{TiSn}$ Heusler Compound Using Modified Becke-Johnson Scheme. <i>Journal of Superconductivity and Novel Magnetism</i> , 2018, 31, 3263-3267.	0.8	2
51	High-Pressure and Temperature Dependence of Electronic, Magnetic, Elastic, Thermodynamic, and Transport Properties of Full-Heusler Alloys $\text{Co}_2\text{YIn}$ ( $Y = \text{Nb, Zr}$ ). <i>Journal of Superconductivity and Novel Magnetism</i> , 2018, 31, 2465-2483.	0.8	6
52	Chemical Potential Evaluation of Thermoelectric and Mechanical Properties of $\text{Zr}_2\text{CoZ}$ ( $Z = \text{Si, Ge}$ ) Heusler Alloys. <i>Journal of Electronic Materials</i> , 2018, 47, 2468-2478.	1.0	12
53	Effect of High Pressure and Temperature on Structural, Thermodynamic and Thermoelectric Properties of Quaternary $\text{CoFeCrAl}$ Alloy. <i>Journal of Electronic Materials</i> , 2018, 47, 2042-2049.	1.0	9
54	Ternary germanide $\text{Li}_2\text{ZnGe}$ : A new candidate for high temperature thermoelectrics. <i>Journal of Alloys and Compounds</i> , 2018, 738, 501-508.	2.8	19



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73	Insight into mechanical properties and thermoelectric efficiency of $Zr_2CoZ$ ( $Z = Al, Si, Ge$ ) Heusler alloys. <i>Materials Research Express</i> , 2017, 4, 116307.	0.8	18
74	DFT investigations on mechanical stability, electronic structure and magnetism in $Co_2TaZ$ ( $Z = Al, Ga, In$ ) heusler alloys. <i>Semiconductor Science and Technology</i> , 2017, 32, 125019.	1.0	44
75	Analysis of magneto-electronic, thermodynamic and thermoelectric properties of ferromagnetic $CoFeCrAl$ alloy. <i>Materials Research Express</i> , 2017, 4, 116103.	0.8	8
76	Thermoelectric and mechanical properties of gapless $Zr_2MnAl$ compound. <i>Indian Journal of Physics</i> , 2017, 91, 33-41.	0.9	57
77	Ferromagnetism in half-metallic quaternary $FeVTiAl$ Heusler compound. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	0
78	Structural, elastic and thermo-electronic properties of paramagnetic perovskite $PbTaO_3$ . <i>RSC Advances</i> , 2016, 6, 48009-48015.	1.7	146
79	Investigation of the transport, structural and mechanical properties of half-metallic $REMnO_3$ ( $RE = Ce$ and $Pr$ ) ferromagnets. <i>RSC Advances</i> , 2016, 6, 97641-97649.	1.7	80
80	Transport, Structural and Mechanical Properties of Quaternary $FeVTiAl$ Alloy. <i>Journal of Electronic Materials</i> , 2016, 45, 6012-6018.	1.0	70
81	Robust thermoelectric performance and high spin polarisation in $CoMnTiAl$ and $FeMnTiAl$ compounds. <i>RSC Advances</i> , 2016, 6, 80302-80309.	1.7	108
82	Electronic, magnetic, elastic and thermodynamic properties of $Cu_2MnGa$ . <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 411, 120-127.	1.0	27
83	Variation of magnetism and half-metallicity in $Ru_2VSi$ with lattice expansion. <i>AIP Conference Proceedings</i> , 2015, , .	0.3	1
84	Investigation of electronic structure, magnetic and transport properties of half-metallic $Mn_2CuSi$ and $Mn_2ZnSi$ Heusler alloys. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 395, 81-88.	1.0	63
85	Magnetic, electronic, high-spin polarization and half-metallic properties of $Ru_2VGe$ and $Ru_2VSb$ Heusler alloys: An FP-LAPW study. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 374, 209-213.	1.0	30
86	FPLAPW approach to high pressure mechanical and thermal behavior of $HfN$ . , 2014, , .		0
87	Structural and magnetic stability of $Fe_2NiSi$ . , 2014, , .		3
88	Full-potential study of $Fe_2NiZ$ ( $Z = Al, Si, Ga, Ge$ ). <i>Materials Chemistry and Physics</i> , 2014, 146, 303-312.	2.0	50
89	Thermal, electronic and ductile properties of lead-chalcogenides under pressure. <i>Journal of Molecular Modeling</i> , 2013, 19, 3481-3489.	0.8	9
90	A first-principles study of $RuMn_2Si$ : Magnetic, electronic and mechanical properties. <i>Journal of Alloys and Compounds</i> , 2013, 575, 292-296.	2.8	30