

# Subhendraâ€™D Mahanti

## List of Publications by Year in descending order

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59  
papers

2,082  
citations

201385

27  
h-index

233125

45  
g-index

60  
all docs

60  
docs citations

60  
times ranked

3051  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural stability of Ni-containing half-Heusler compounds. Physical Review B, 2000, 62, 12754-12762.	1.1	164
2	Resonant States in the Electronic Structure of the High Performance Thermoelectrics $\text{AgPb}_m\text{SbTe}_{2+m}$ : The Role of Ag-Sb Microstructures. Physical Review Letters, 2004, 93, 146403.	2.9	152
3	Decoupling of Structural and Electronic Phase Transitions in $\text{VO}_2$ . Physical Review Letters, 2012, 109, 166406.	2.9	145
4	Electronic structure and transport of $\text{Bi}_2\text{Te}_3$ and $\text{BaBiTe}_3$ . Physical Review B, 2000, 61, 8162-8171.	1.1	140
5	Atomic Ordering and Gap Formation in Ag-Sb-Based Ternary Chalcogenides. Physical Review Letters, 2007, 99, 156403.	2.9	123
6	Exploration of metastability and hidden phases in correlated electron crystals visualized by femtosecond optical doping and electron crystallography. Science Advances, 2015, 1, e1400173.	4.7	95
7	Substitution of Bi for Sb and its Role in the Thermoelectric Properties and Nanostructuring in $\text{Ag}_{1-x}\text{Pb}_x\text{MTe}_{20}$ (M = Bi, Sb) ( $x = 0, 0.14, 0.3$ ). Chemistry of Materials, 2008, 20, 3512-3520.	3.2	76
8	$\text{Li}_2\text{PbGeS}_4$ and $\text{Li}_2\text{EuGeS}_4$ : Polar Chalcopyrites with a Severe Tetragonal Compression. Chemistry of Materials, 2001, 13, 4714-4721.	3.2	64
9	Report from the third workshop on future directions of solid-state chemistry: The status of solid-state chemistry and its impact in the physical sciences. Progress in Solid State Chemistry, 2008, 36, 1-133.	3.9	58
10	On the Lamellar Compounds $\text{CuBiP}_2\text{Se}_6$ , $\text{AgBiP}_2\text{Se}_6$ and $\text{AgBiP}_2\text{S}_6$ . Antiferroelectric Phase Transitions Due to Cooperative $\text{Cu}^{+}$ and $\text{Bi}^{3+}$ Ion Motion. Inorganic Chemistry, 2005, 44, 5293-5303.	1.9	57
11	Crystal Growth, Thermoelectric Properties, and Electronic Structure of $\text{AgBi}_3\text{S}_5$ and $\text{AgSb}_x\text{Bi}_{3-x}\text{S}_5$ ( $x = 1, 2$ ). Physical Review B, 2007, 76, 045111.	3.2	56
12	Spin splitting in 2D monochalcogenide semiconductors. Scientific Reports, 2015, 5, 17044.	1.6	55
13	Nanostructured Thermoelectric Materials and High-Efficiency Power-Generation Modules. Journal of Electronic Materials, 2007, 36, 704-710.	1.0	52
14	Compositional Tailoring for Realizing High Thermoelectric Performance in Hafnium-Free n-Type $\text{ZrNiSn}$ Half-Heusler Alloys. ACS Applied Materials & Interfaces, 2019, 11, 47830-47836.	4.0	52
15	Stabilization of New Forms of the Intermetallic Phases $\text{RENiGe}_2$ (RE = Dy, Ho, Er, Tm, Yb, Lu) in Liquid Indium. Inorganic Chemistry, 2004, 43, 1403-1410.	1.9	45
16	Local inversion symmetry breaking and spin-phonon coupling in the perovskite $\text{GdCrO}_3$ . Physical Review B, 2017, 96, .	1.1	43
17	Stabilization of $\text{Si}_3\text{B}_3$ from Liquid Ga: A Boron-Rich Binary Semiconductor Resistant to High-Temperature Air Oxidation. Angewandte Chemie - International Edition, 2003, 42, 1929-1932.	7.2	38
18	Electronic structure, transport, and phonons of $\text{SrAg}_2\text{C}_2\text{H}_2$ . Physical Review B, 2015, 92, .	1.1	36

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19	Temperature Dependent Photoinduced Reversible Phase Separation in Mixed-Halide Perovskite. ACS Applied Energy Materials, 2018, 1, 3807-3814.	2.5	36
20	Charge density wave states in tantalum dichalcogenides. Physical Review B, 2018, 97, .	1.1	35
21	Gallium Flux Synthesis of Tb <sub>3</sub> C <sub>2</sub> Si <sub>8</sub> (B12) <sub>3</sub> : A Novel Quaternary Boron-Rich Phase Containing B12 Icosahedra Financial support from the Department of Energy (Grant # DE-FG02-99ER45793) is gratefully acknowledged. Part of this work was carried out at the Center for Advanced Microscopy at Michigan State University.. Angewandte Chemie - International Edition, 2002, 41, 844.	7.2	33
22	Quaternary Intermetallics Grown from Molten Aluminum: The Homologous Series Th <sub>2</sub> (AuxSi <sub>1-x</sub> )[AuAl <sub>2</sub> ] <sub>n</sub> Si <sub>2</sub> (n= 1, 2, 4). Chemistry of Materials, 2002, 14, 1695-1705.	3.2	32
23	Impressive Structural Diversity and Polymorphism in the Modular Compounds ABi <sub>3</sub> Q <sub>5</sub> (A = Rb, Cs; Q = S, Tl) ETQq1 1.0.784314 rgBT /Dv	6.6	32
24	Electronic structure and thermoelectric properties of half-Heusler compounds with eight electron valence count KScX (X=C and Ge). Journal of Applied Physics, 2016, 119, .	1.1	31
25	Yb <sub>9</sub> Zn <sub>4</sub> Bi <sub>9</sub> : Extension of the Zintl Concept to the Mixed-Valent Spectator Cations. Journal of the American Chemical Society, 2001, 123, 12704-12705.	6.6	30
26	: new ternary aluminides grown from aluminum flux. Journal of Solid State Chemistry, 2003, 170, 48-57.	1.4	30
27	Tb <sub>4</sub> FeGe <sub>8</sub> Grown in Liquid Gallium: Trans-Cis Chains from the Distortion of a Planar Ge Square Net. Inorganic Chemistry, 2005, 44, 2177-2188.	1.9	28
28	Structural dynamics of two-dimensional charge-density waves in CeTe investigated by ultrafast electron crystallography. Physical Review B, 2012, 86, .	1.1	27
29	Intermetallics as Zintl Phases: Yb <sub>2</sub> Ga <sub>4</sub> Ge <sub>6</sub> and RE <sub>3</sub> Ga <sub>4</sub> Ge <sub>6</sub> (RE=Yb, Eu): Structural Response of a [Ga <sub>4</sub> Ge <sub>6</sub> ] <sup>4-</sup> Framework to Reduction by Two Electrons. Chemistry - A European Journal, 2004, 10, 3197-3208.	1.7	24
30	REAu <sub>2</sub> In <sub>4</sub> (RE = La, Ce, Pr, Nd): Polyindides from Liquid Indium. Inorganic Chemistry, 2007, 46, 6933-6941.	1.9	24
31	Intermetallic Compounds with Near Zintl Phase Behavior: RE <sub>2</sub> Zn <sub>3</sub> Ge <sub>6</sub> (RE = La, Ce, Pr, Nd) Grown from Liquid Indium. Inorganic Chemistry, 2005, 44, 8670-8679.	1.9	23
32	Modulating the lattice dynamics of n-type Heusler compounds via tuning Ni concentration. Applied Physics Letters, 2018, 113, .	1.5	22
33	Local structure and influence of bonding on the phase-change behavior of the chalcogenide compounds K <sub>1-x</sub> Rb <sub>x</sub> Sb <sub>5</sub> S <sub>8</sub> . Journal of Solid State Chemistry, 2007, 180, 420-431.	1.4	19
34	Atomic and electronic structures of I-VI <sub>2</sub> ternary chalcogenides. Journal of Science: Advanced Materials and Devices, 2016, 1, 51-56.	1.5	19
35	Yb <sub>8</sub> Ge <sub>3</sub> Sb <sub>5</sub> , a Metallic Mixed-Valent Zintl Phase Containing the Polymeric [Ge <sub>34</sub> ] <sup>-</sup> Anions. Journal of the American Chemical Society, 2004, 126, 4474-4475.	6.6	18
36	Synthesis, magnetism and electronic structure of YbNi <sub>2-x</sub> FexAl <sub>8</sub> (x=0.91) isolated from Al flux. Journal of Solid State Chemistry, 2008, 181, 3269-3277.	1.4	18

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37	Crystal Growth and Characterization of the Narrow-Band-Gap Semiconductors $\text{OsPn}_2$ ( $\text{Pn} = \text{Tl}, \text{Bi}, \text{Sb}, \text{As}$ )	1.9	18
38	$\text{RE}_2\text{MAl}_6\text{Si}_4$ (RE = Gd, Tb, Dy; M = Au, Pt): Layered Quaternary Intermetallics Featuring $\text{CaAl}_2\text{Si}_2$ -Type and $\text{YNiAl}_4\text{Ge}_2$ -Type Slabs Grown from Aluminum Flux. <i>Inorganic Chemistry</i> , 2003, 42, 7959-7966.	1.9	15
39	Site substitution in $\text{GdMnO}_3$ : Effects on structural, electronic, and magnetic properties. <i>Physical Review B</i> , 2020, 102, .		
40	Ferromagnetic superexchange in insulating $\text{C}_2\text{Mo}_2\text{O}_6$ controlling orbital hybridization. <i>Physical Review B</i> , 2015, 92, .	1.1	14
41	Electronically Driven Fragmentation of Silver Nanocrystals Revealed by Ultrafast Electron Crystallography. <i>Physical Review Letters</i> , 2010, 104, 123401.	2.9	13
42	Magnetic behavior and Coulomb-lattice-gas ordering of $\text{Mn}^{2+}$ and $\text{Sn}^{4+}$ ions in $\text{K}_2\text{MnSn}_4\text{S}_4$ . <i>Physical Review B</i> , 1997, 55, 11056-11059.	1.1	12
43	Coexistence and Interaction of Spinons and Magnons in an Antiferromagnet with Alternating Antiferromagnetic and Ferromagnetic Quantum Spin Chains. <i>Physical Review Letters</i> , 2020, 125, 037204.	2.9	12
44	Exploring packaging strategies of nano-embedded thermoelectric generators. <i>AIP Advances</i> , 2015, 5, 107210.	0.6	11
45	$\text{R}_3\text{Au}_6\text{X}_6\text{Al}_{26}\text{T}$ (R = Ca, Sr, Eu, Yb; T = Early Transition) grown from Aluminum Flux. <i>Inorganic Chemistry</i> , 2009, 48, 1346-1355.	1.9	10
46	Probing the Electronic Structure of Hybrid Perovskites in the Orientationally Disordered Cubic Phase. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5719-5727.	2.1	10
47	Electronic structure and thermoelectric properties of monolayers of group V atoms. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	5
48	$\text{EuSe}_2$ : A novel antiferromagnetic rare-earth polychalcogenide. <i>Journal of Applied Physics</i> , 1999, 85, 5381-5383.	1.1	4
49	$\text{V}_2\text{Al}_5\text{Ge}_5$ : first ternary intermetallic in the $\text{VAlGe}$ system accessible in liquid aluminium. <i>Chemical Communications</i> , 2004, , 1506-1507.	2.2	4
50	Clusters. <i>Science and Technology of Atomic, Molecular, Condensed Matter and Biological Systems</i> , 2010, , 37-70.	0.6	3
51	Electronic structure of Cd, In, Sn substitutional Defects in GaSe. <i>Materials Research Society Symposia Proceedings</i> , 2007, 994, 1.	0.1	1
52	Spin dynamics of antiferromagnetically coupled bilayers—the case of $\text{Cr}_2\text{TeO}_6$ . <i>Journal of Physics Condensed Matter</i> , 2018, 30, 365802.	0.7	1
53	Spin dynamics of antiferromagnetically coupled ferromagnetic bilayers—the case of $\text{Cr}_2\text{WO}_6$ and $\text{Cr}_2\text{MoO}_6$ . <i>Materials Research Express</i> , 2019, 6, 076103.	0.8	1
54	Quantum fluctuation effects on the ordered moments in a two dimensional frustrated ferrimagnet. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 125801.	0.7	1

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55	Impressive Structural Diversity and Polymorphism in the Modular Compounds $ABi_3Q_5$ (A: Rb, Cs; Q: S, Tl) <i>J. Phys. Chem. B</i> , 2004, 108, 10784-10791.	0.1	0
56	$V_2Al_5Ge_5$ : First Ternary Intermetallic in the $V-Al-Ge$ System Accessible in Liquid Aluminum.. <i>ChemInform</i> , 2004, 35, no.	0.1	0
57	Crystal Growth, Thermoelectric Properties, and Electronic Structure of $AgBi_3S_5$ and $AgSb_xBi_{3-x}S_5$ ( $x = 0, 1$ ) <i>J. Phys. Chem. B</i> , 2004, 108, 10784-10791.	0.1	0
58	Intermetallic Compounds with Near Zintl Phase Behavior: $Ln_2Zn_3Ge_6$ (Ln: La, Ce, Pr, Nd) Grown from Liquid Indium.. <i>ChemInform</i> , 2006, 37, no.	0.1	0
59	Electronic structure of some complex thermoelectrics – role of dimensional confinement and nanostructuring. <i>Proceedings of SPIE</i> , 2016, , .	0.8	0