David Berthebaud

List of Publications by Year
in descending order

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79 papers	1,328 citations	361413 20 h-index	434195 31 g-index
87 all docs	87 docs citations	87 times ranked	1632 citing authors

#	Article	IF	Citations
1	Design, assembly and characterization of silicide-based thermoelectric modules. Energy Conversion and Management, 2016, 110, 13-21.	9.2	62
2	STUDY OF ELECTRON, PHONON AND CRYSTAL STABILITY VERSUS THERMOELECTRIC PROPERTIES IN Mg₂X(X = Si, Sn) COMPOUNDS AND THEIR ALLOYS. Functional Materials Letters, 2013, 06, 1340005.	1.2	59
3	Searching for new thermoelectric materials: some examples among oxides, sulfides and selenides. Journal of Physics Condensed Matter, 2016, 28, 013001.	1.8	56
4	Thermoelectric properties of n-type cobalt doped chalcopyrite Cu1âˆ’xCoxFeS2 and p-type eskebornite CuFeSe2. Journal of Materiomics, 2015, 1, 68-74.	5.7	47
5	ZrSe₃-Type Variant of TiS₃: Structure and Thermoelectric Properties. Chemistry of Materials, 2014, 26, 5585-5591.	6.7	44
6	Screening of transition (Y, Zr, Hf, V, Nb, Mo, and Ru) and rare-earth (La and Pr) elements as potential effective dopants for thermoelectric GeTe â€“ an experimental and theoretical appraisal. Journal of Materials Chemistry A, 2020, 8, 19805-19821.	10.3	43
7	Structural and thermoelectric properties of n-type isocubanite CuFe₂S₃. Inorganic Chemistry Frontiers, 2017, 4, 424-432.	6.0	40
8	Microstructural Control and Thermoelectric Properties of Misfit Layered Sulfides (LaS)_{1+<i>m</i>}TS₂ (T = Cr, Nb): The Natural Superlattice Systems. Chemistry of Materials, 2014, 26, 2684-2692.	6.7	39
9	Physical Insights on the Lattice Softening Driven Midâ€Temperature Range Thermoelectrics of Ti/Zrâ€Inserted SnTeâ€"An Outlook Beyond the Horizons of Conventional Phonon Scattering and Excavation of Heikesâ€™ Equation for Estimating Carrier Properties. Advanced Energy Materials, 2021, 11, 2101122.	19.5	39
10	Thermoelectric properties of the chalcopyrite Cu1âˆ’xMxFeS2âˆ’y series (M = Mn, Co, Ni). RSC Advances, 2016, 6, 55117-55124.	3.6	36
11	Effect of Zn doping on improving crystal quality and thermoelectric properties of borosilicides. Dalton Transactions, 2010, 39, 1027-1030.	3.3	34
12	Molybdenum, Tungsten, and Aluminium Substitution for Enhancement of the Thermoelectric Performance of Higher Manganese Silicides. Journal of Electronic Materials, 2015, 44, 3603-3611.	2.2	34
13	Layered tellurides: stacking faults induce low thermal conductivity in the new In₂Ge₂Te₆ and thermoelectric properties of related compounds. Journal of Materials Chemistry A, 2017, 5, 19406-19415.	10.3	28
14	Microwaved assisted fast synthesis of n and p-doped Mg2Si. Journal of Solid State Chemistry, 2013, 202, 61-64.	2.9	27
15	Is LiI a Potential Dopant Candidate to Enhance the Thermoelectric Performance in Sb-Free GeTe Systems? A Prelusive Study. Energies, 2020, 13, 643.	3.1	26
16	Synthesis and Thermoelectric Properties in the 2D Ti1 â€“ xNbxS3 Trichalcogenides. Materials, 2015, 8, 2514-2522.	2.9	25
17	Nanostructural and Microstructural Ordering and Thermoelectric Property Tuning in Misfit Layered Sulfide [(LaS)_{<i>x</i>}]_{1.14}NbS₂. Chemistry of Materials, 2015, 27, 7719-7728.	6.7	25
18	Thermoelectric properties and spark plasma sintering of doped YB₂₂C₂N. Journal of Materials Research, 2010, 25, 665-669.	2.6	24

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19	Magnetodielectric Effect in Crystals of the Noncentrosymmetric CaOFeS at Low Temperature. Inorganic Chemistry, 2015, 54, 6560-6565.	4.0	24
20	Crystal structures of the four new quaternary copper(I)-selenides A0.5CuZrSe3 and ACuYSe3(A=Sr, Ba). Journal of Solid State Chemistry, 2016, 242, 14-20.	2.9	24
21	Magnetothermopower and giant magnetoresistance in the spin-glass CuCrTiS4 thiospinel. Journal of Applied Physics, 2018, 124, .	2.5	23
22	Tailoring the thermoelectric and structural properties of Cuâ€"Sn based thiospinel compounds [CuM_{1+x}Sn_{1â^'x}S₄ (M = Ti, V, Cr, Co)]. Journal of Materials Chemistry C, 2020, 8, 16368-16383.	5.5	21
23	Transport and magnetic properties of highly densified CoS2 ceramic. Journal of Applied Physics, 2013, 114, .	2.5	20
24	Magnesioreduction Synthesis of Co-Doped Î²-FeSi2: Mechanism, Microstructure, and Improved Thermoelectric Properties. ACS Applied Energy Materials, 2019, 2, 8525-8534.	5.1	20
25	Phase relations and stabilities at 900Â°C in the Uâ€"Feâ€"Si ternary system. Intermetallics, 2008, 16, 373-377.	3.9	19
26	Synthesis of CeB6 thin films by physical vapor deposition and their field emission investigations. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 117-120.	3.5	19
27	Electronic Band Structure Engineering and Enhanced Thermoelectric Transport Properties in Pb-Doped BiCuOS Oxysulfide. Chemistry of Materials, 2018, 30, 1085-1094.	6.7	18
28	Thermoelectric Higher Manganese Silicide: Synthetized, sintered and shaped simultaneously by selective laser sintering/Melting additive manufacturing technique. Materials Letters, 2018, 214, 236-239.	2.6	18
29	Facile pâ€"n control, and magnetic and thermoelectric properties of chromium selenides Cr2+xSe3. Journal of Materials Chemistry C, 2019, 7, 8269-8276.	5.5	18
30	Thermoelectric Performance of Cr Doped and Crâ€"Fe Double-Doped Higher Manganese Silicides with Adjusted Carrier Concentration and Significant Electronâ€"Phonon Interaction. ACS Applied Materials & Interfaces, 2021, 13, 8574-8583.	8.0	18
31	Tunable Optical Absorption on â€œZnxTixO4-3yN2yâ€•Nanosized Spinel Powders. Journal of Physical Chemistry C, 2007, 111, 7883-7888.	3.1	17
32	Influence of Stoichiometry and Aging at Operating Temperature on Thermoelectric Higher Manganese Silicides. Chemistry of Materials, 2020, 32, 10601-10609.	6.7	17
33	Effect of transition element doping on crystal structure of rare earth borosilicides REB44Si2. Journal of Solid State Chemistry, 2011, 184, 1682-1687.	2.9	16
34	Synchrotron Study of Ag-Doped Mg2Si: Correlation Between Properties and Structure. Journal of Electronic Materials, 2014, 43, 3746-3752.	2.2	16
35	Exploring the thermoelectric behavior of spark plasma sintered Fe7-xCoxS8 compounds. Journal of Alloys and Compounds, 2020, 819, 152999.	5.5	16
36	The BiCu1â^'OS oxysulfide: Copper deficiency and electronic properties. Journal of Solid State Chemistry, 2016, 237, 292-299.	2.9	15

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37	Mesostructure - thermoelectric properties relationships in V Mn1â^'Si1.74 (xÂ= 0, 0.04) higher manganese silicides preparedÂbyÂmagnesiothermy. Journal of Alloys and Compounds, 2020, 816, 152577.	5.5	15
38	Znâ€"Al Layered Double Hydroxide Film Functionalized by a Luminescent Octahedral Molybdenum Cluster: Ultravioletâ€"Visible Photoconductivity Response. ACS Applied Materials & Interfaces, 2020, 12, 40495-40509.	8.0	15
39	Robust, Transparent Hybrid Thin Films of Phase-Change Material Sb₂S₃ Prepared by Electrophoretic Deposition. ACS Applied Energy Materials, 2021, 4, 9891-9901.	5.1	15
40	Crystal structure and electronic properties of the new compounds, U6Fe16Si7 and its interstitial carbide U6Fe16Si7C. Journal of Solid State Chemistry, 2007, 180, 2926-2932.	2.9	14
41	Resonant Bonding, Multiband Thermoelectric Transport, and Native Defects in n-Type BaBiTe3â€"xSex (x =) Tj ETQq1 1 0.784314 rgBT /	6.7	13
42	Polar Transition-Metal Chalcogenide: Structure and Properties of the New Pseudo-Hollandite Ba_{0.5}Cr₅Se₈. Chemistry of Materials, 2015, 27, 7110-7118.	6.7	12
43	Crystal growth, electronic structure, and properties of Ni-substituted FeGa. Journal of Solid State Chemistry, 2016, 236, 166-172.	2.9	12
44	Microstructure and Thermoelectric Properties of Dense YB22C2N Samples Fabricated Through Spark Plasma Sintering. Journal of Electronic Materials, 2011, 40, 682-686.	2.2	11
45	Stability and thermoelectric performance of doped higher manganese silicide materials solidified by RGS (ribbon growth on substrate) synthesis. Journal of Alloys and Compounds, 2020, 832, 154602.	5.5	11
46	Isothermal section at 900Â°C of the Ceâ€"Feâ€"Si ternary system. Journal of Alloys and Compounds, 2007, 442, 104-107.	5.5	10
47	Isothermal section of the ternary phase diagram Uâ€"Feâ€"Ge at 900 Â°C and its new intermetallic phases. Journal of Alloys and Compounds, 2015, 639, 224-234.	5.5	10
48	Effect of Nanostructuring on the Thermoelectric Properties of Î²-FeSi2. Nanomaterials, 2021, 11, 2852.	4.1	10
49	Crystal structure and electronic properties of the new compound U3Fe4Ge4. Journal of Alloys and Compounds, 2013, 554, 408-413.	5.5	9
50	Synthesis, crystal structure and electronic properties of the new iron selenide Ba9Fe4Se16. Journal of Solid State Chemistry, 2014, 211, 184-190.	2.9	9
51	The solid solution series Tl(V_{1â^'x}Cr_x)₅Se₈: crystal structure, magnetic and thermoelectric properties. Journal of Materials Chemistry C, 2015, 3, 10509-10517.	5.5	9
52	Structural and physical properties of the U9Fe7Ge24 uranium germanide. Intermetallics, 2011, 19, 841-847.	3.9	8
53	New Synthesis Route for Complex Borides; Rapid Synthesis of Thermoelectric Yttrium Aluminoboride via Liquid-Phase Assisted Reactive Spark Plasma Sintering. Scientific Reports, 2020, 10, 8914.	3.3	8
54	Transport and Thermoelectric Coefficients of the Co9S8 Metal: A Comparison with the Spin Polarized CoS2. Journal of Physical Chemistry C, 2021, 125, 5386-5391.	3.1	8

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55	Thermoelectric properties of ternary compounds from the Uâ€“Feâ€“Si system. Journal of Alloys and Compounds, 2007, 442, 348-350.	5.5	7
56	Novel Intermetallic Compound UFe5Si3:â€‰ A New Room-Temperature Magnet with an Original Atomic Arrangement. Chemistry of Materials, 2007, 19, 3441-3447.	6.7	7
57	Crystal and electronic structures of two new iron selenides: Ba4Fe3Se10 and BaFe2Se4. Journal of Solid State Chemistry, 2015, 230, 293-300.	2.9	7
58	Magnetic and thermoelectric properties of the ternary pseudo-hollandite BaxCr5Se8 (0.5 < x < 0.55) solid solution. Dalton Transactions, 2016, 45, 12119-12126.	3.3	7
59	Linear, Hypervalent Se₃^{4â€“} Units and Unprecedented Cu₄Se₉ Building Blocks in the Copper(I) Selenide Ba₄Cu₈Se₁₃. Inorganic Chemistry, 2017, 56, 9209-9218.	4.0	7
60	A novel ternary uranium-based intermetallic U34Fe4â^’xGe33: Structure and physical properties. Journal of Alloys and Compounds, 2014, 606, 154-163.	5.5	6
61	Ultra-low thermal conductivity of TlIn 5 Se 8 and structure of the new complex chalcogenide Tl 0.98 In 13.12 Se 16.7 Te 2.3. Journal of Solid State Chemistry, 2017, 250, 114-120.	2.9	6
62	Thermoelectric properties, metal-insulator transition, and magnetism: Revisiting the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">N</mml:mi><mml:msub><mml:mi mathvariant="normal">i</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></m mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">u</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi	2.4	6
63	Structural study and evaluation of thermoelectric properties of single-phase isocubanite (CuFe₂S₃) synthesized <i>via</i> an ultra-fast efficient microwave radiation technique. Sustainable Energy and Fuels, 2021, 5, 5804-5813.	4.9	6
64	Structural, magnetic and transport properties of 2D structured perovskite oxychalcogenides. Solid State Sciences, 2014, 36, 94-100.	3.2	5
65	Synthesis, electronic structure and physical properties of polycrystalline Ba2FePnSe5 (PnÂ= Sb, Bi). Materials Chemistry and Physics, 2018, 203, 202-211.	4.0	4
66	Synthesis, extended and local crystal structure, and thermoelectric properties of Fe1-xRexGa3 solid solution. Journal of Alloys and Compounds, 2019, 804, 331-338.	5.5	4
67	Effect of Re Substitution on the Phase Stability of Complex MnSiÎ³. Journal of Electronic Materials, 2019, 48, 5827-5834.	2.2	4
68	Crystal structure and high temperature X-ray diffraction study of thermoelectric chimney-ladder FeGe (Î³ â‰ˆ 1.52). Journal of Alloys and Compounds, 2020, 846, 155696.	5.5	4
69	Fabrication and Evaluation of Low-Cost CrSi2 Thermoelectric Legs. Crystals, 2021, 11, 1140.	2.2	4
70	Hafnium Oxide Nanostructured Thin Films: Electrophoretic Deposition Process and DUV Photolithography Patterning. Nanomaterials, 2022, 12, 2334.	4.1	4
71	Rapid synthesis of thermoelectric YB₂₂C₂N via spark plasma sintering with gas/solid reaction technology. Journal of the Ceramic Society of Japan, 2020, 128, 181-185.	1.1	3
72	Improvement of Thermoelectric Properties via Texturation Using a Magnetic Slip Casting Processâ€“The Illustrative Case of CrSi₂. Chemistry of Materials, 2022, 34, 1143-1156.	6.7	3

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73	Coupled dielectric permittivity and magnetic susceptibility in the insulating antiferromagnet Ba2FeSbSe5. Applied Physics Letters, 2018, 112, 202903.	3.3	2
74	Thermoelectrics: Physical Insights on the Lattice Softening Driven Midâ€Temperature Range Thermoelectrics of Ti/Zrâ€Inserted SnTeâ€"An Outlook Beyond the Horizons of Conventional Phonon Scattering and Excavation of Heikesâ€™ Equation for Estimating Carrier Properties (Adv. Energy Mater.) Tj ETQq0 0 0 rgBT /Overlock 10	19.5	2
75	Suppression of superconductivity and resistivity anomaly in Rh₁₇S₁₅by cobalt substitution. Journal of Physics Condensed Matter, 2017, 29, 075604.	1.8	1
76	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">Sb</mml:mi><mml:mtext>â^’</mml:mtext><mml:mn>5</mml:mn><mml:mi>s</mml:mi></mml:mrow></mml:ma lone pair dynamics and collinear magnetic ordering in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ba</mml:mi><mml:mn>2</mml:mn></mml: Physical Review B, 2021, 103, .	3.2	1
77	Tunable photo-induced electronic property of octahedral metal clusters. Materials Letters: X, 2021, 11, 100079.	0.7	1
78	Substitution of indium for chromium in TlIn5â^’xCrxSe8: crystal structure of TlIn4.811(5)Cr0.189(5)Se8. Acta Crystallographica Section E: Crystallographic Communications, 2017, 73, 500-502.	0.5	1
79	Nickel bismuth boride, Ni23-xBixB6[x= 2.44â€¦(1)]. Acta Crystallographica Section E: Structure Reports Online, 2011, 67, i17-i17.	0.2	0