Emanuel Guilmeau

List of Publications by Year
in descending order

115	4,592	76326	128289
papers	citations	40 h-index	60 g-index

115	115	115	3482
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Crystal Structure Classification of Copperâ€Based Sulfides as a Tool for the Design of Inorganic Functional Materials. Angewandte Chemie - International Edition, 2022, 61, .	13.8	25
2	Crystal Structure Classification of Copperâ€Based Sulfides as a Tool for the Design of Inorganic Functional Materials. Angewandte Chemie, 2022, 134, .	2.0	6
3	A Tunable Structural Family with Ultralow Thermal Conductivity: Copper-Deficient Cu_{1â€“x}â–¡_xPb_{1â€“x}Bi_{1+x}S₃. Journal of the American Chemical Society, 2022, 144, 1846-1860.	13.7	15
4	Recent developments in high-performance thermoelectric sulphides: an overview of the promising synthetic colusites. Journal of Materials Chemistry C, 2021, 9, 773-795.	5.5	33
5	Ordered sphalerite derivative Cu₅Sn₂S₇: a degenerate semiconductor with high carrier mobility in the Cuâ€“Snâ€“S diagram. Journal of Materials Chemistry A, 2021, 9, 10812-10826.	10.3	23
6	Thermoelectric Cuâ€“S-Based Materials Synthesized via a Scalable Mechanochemical Process. ACS Sustainable Chemistry and Engineering, 2021, 9, 2003-2016.	6.7	25
7	Synthetic minerals tetrahedrites and colusites for thermoelectric power generation. , 2021, , 197-216.		3
8	Issues and opportunities from Peltier effect in functionally-graded colusites: From SPS temperature modeling to enhanced thermoelectric performances. Applied Materials Today, 2021, 22, 100948.	4.3	6
9	Key Role of d⁰ and d¹⁰ Cations for the Design of Semiconducting Colusites: Large Thermoelectric ZT in Cu₂₆Ti₂Sb₆S₃₂ Compounds. Chemistry of Materials, 2021, 33, 3449-3456.	6.7	24
10	Bismuth Doping in Nanostructured Tetrahedrite: Scalable Synthesis and Thermoelectric Performance. Nanomaterials, 2021, 11, 1386.	4.1	3
11	Synergistic Effect of Chemical Substitution and Insertion on the Thermoelectric Performance of Cu₂₆V₂Ge₆S₃₂ Colusite. Inorganic Chemistry, 2021, 60, 11364-11373.	4.0	7
12	Structural study and evaluation of thermoelectric properties of single-phase isocubanite (CuFe₂S₃) synthesized via an ultra-fast efficient microwave radiation technique. Sustainable Energy and Fuels, 2021, 5, 5804-5813.	4.9	6
13	Local-Disorder-Induced Low Thermal Conductivity in Degenerate Semiconductor Cu₂₂Sn₁₀S₃₂. Inorganic Chemistry, 2021, 60, 16273-16285.	4.0	14
14	Effects of Grain Size on the Thermoelectric Properties of Cu₂SnS₃: An Experimental and First-Principles Study. ACS Applied Energy Materials, 2021, 4, 12604-12612.	5.1	25
15	Controlling the Thermoelectric Properties of Nb-Doped TiO₂ Ceramics through Engineering Defect Structures. ACS Applied Materials & Interfaces, 2021, 13, 57326-57340.	8.0	21
16	Long-Range Cationic Order Collapse Triggered by S/Cl Mixed-Anion Occupancy Yields Enhanced Thermoelectric Properties in Cu₅Sn₂S₇. Chemistry of Materials, 2021, 33, 9425-9438.	6.7	11
17	Thermal Stability of the Crystal Structure and Electronic Properties of the High Power Factor Thermoelectric Colusite Cu₂₆Cr₂Ge₆S₃₂. Chemistry of Materials, 2020, 32, 830-840.	6.7	19
18	Time-Resolved In Situ Neutron Diffraction Study of Cu22Fe8Ge4S32 Germanite: A Guide for the Synthesis of Complex Chalcogenides. Chemistry of Materials, 2020, 32, 8993-9000.	6.7	4

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19	Transport properties and electronic density-of-states of Zn-doped colusite Cu26Cr2Ge6S32. Applied Physics Letters, 2020, 117, 173902.	3.3	4
20	Promoted crystallisation and cationic ordering in thermoelectric Cu₂₆V₂Sn₆S₃₂ colusite by eccentric vibratory ball milling. Dalton Transactions, 2020, 49, 15828-15836.	3.3	10
21	Tetrahedrites synthesized via scalable mechanochemical process and spark plasma sintering. Journal of the European Ceramic Society, 2020, 40, 1922-1930.	5.7	13
22	Toppling the Transport Properties with Cationic Overstoichiometry in Thermoelectric Colusite: [Cu₂₆Cr₂Ge₆]_{1+Î´}S₃₂. ACS Applied Energy Materials, 2020, 3, 4180-4185.	5.1	14
23	Structure, microstructure and thermoelectric properties of germanite-type Cu22Fe8Ge4S32 compounds. Journal of Alloys and Compounds, 2020, 831, 154767.	5.5	16
24	A scalable synthesis route for multiscale defect engineering in the sustainable thermoelectric quaternary sulfide Cu26V2Sn6S32. Acta Materialia, 2020, 195, 229-239.	7.9	22
25	Disorder-driven glasslike thermal conductivity in colusite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">u</mml:mi><mml:mn>26</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">V</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">n</mml:mi><mml:mn>6	2.4	24
26	Copperâ€Rich Thermoelectric Sulfides: Sizeâ€Mismatch Effect and Chemical Disorder in the [<i>T</i>S₄]Cu₆ Complexes of Cu₂₆<i>T</i>₂Ge₆S₃₂ (<i>T</i>=Cr, Mo, W) Colusites. Angewandte Chemie, 2019, 131, 15601-15609.	2.0	5
27	Copperâ€Rich Thermoelectric Sulfides: Sizeâ€Mismatch Effect and Chemical Disorder in the [<i>T</i>S₄]Cu₆ Complexes of Cu₂₆<i>T</i>₂Ge₆S₃₂ (<i>T</i>=Cr, Mo, W) Colusites. Angewandte Chemie - International Edition, 2019, 58, 15455-15463.	13.8	36
28	Crossover from Germanite to Renierite-Type Structures in Cu_{22â€"<i>x</i>}Zn_{<i>x</i>}Fe₈Ge₄S₃₂ Thermoelectric Sulfides. ACS Applied Energy Materials, 2019, 2, 7679-7689.	5.1	17
29	XBi₄S₇ (X = Mn, Fe): New Costâ€Efficient Layered <i>n</i>â€Type Thermoelectric Sulfides with Ultralow Thermal Conductivity. Advanced Functional Materials, 2019, 29, 1904112.	14.9	24
30	Atomic-scale phonon scatterers in thermoelectric colusites with a tetrahedral framework structure. Journal of Materials Chemistry A, 2019, 7, 228-235.	10.3	41
31	High Power Factors of Thermoelectric Colusites Cu₂₆<i>T</i>₂Ge₆S₃₂ (<i>T</i> = Cr, Mo, W): Toward Functionalization of the Conductive â€œCuâ€"Sâ€Network. Advanced Energy Materials, 2019, 9, 1803249.	19.5	51
32	Role of cobalt for titanium substitution on the thermoelectric properties of the thiospinel CuTi2S4. Journal of Alloys and Compounds, 2019, 781, 1169-1174.	5.5	20
33	Mechanochemical synthesis of iodine-substituted BiCuOS. Journal of Solid State Chemistry, 2018, 263, 157-163.	2.9	6
34	Phonon Scattering and Electron Doping by 2D Structural Defects in In/ZnO. ACS Applied Materials & Interfaces, 2018, 10, 6415-6423.	8.0	18
35	Substituting Copper with Silver in the BiMOCh Layered Compounds (M = Cu or Ag; Ch = S, Se, or Te): Crystal, Electronic Structure, and Optoelectronic Properties. Chemistry of Materials, 2018, 30, 549-558.	6.7	31
36	High-Performance Thermoelectric Bulk Colusite by Process Controlled Structural Disordering. Journal of the American Chemical Society, 2018, 140, 2186-2195.	13.7	98

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37	Electronic Band Structure Engineering and Enhanced Thermoelectric Transport Properties in Pb-Doped BiCuOS Oxysulfide. Chemistry of Materials, 2018, 30, 1085-1094.	6.7	18
38	Improving the thermoelectric properties of SrTiO3-based ceramics with metallic inclusions. Journal of Alloys and Compounds, 2018, 731, 723-730.	5.5	70
39	Abnormal Grain Growth as a Method To Enhance the Thermoelectric Performance of Nb-Doped Strontium Titanate Ceramics. ACS Sustainable Chemistry and Engineering, 2018, 6, 15988-15994.	6.7	30
40	Thermal conductivity and stability of Al-doped ZnO nanostructured ceramics. Journal of the European Ceramic Society, 2018, 38, 5015-5020.	5.7	43
41	High temperature neutron powder diffraction study of the Cu 12 Sb 4 S 13 and Cu 4 Sn 7 S 16 phases. Journal of Solid State Chemistry, 2017, 247, 83-89.	2.9	23
42	Structural features and thermoelectric properties of Alâ€doped (ZnO)₅In₂O₃ homologous phases. Journal of the American Ceramic Society, 2017, 100, 3712-3721.	3.8	14
43	The Influence of Mobile Copper Ions on the Glass-Like Thermal Conductivity of Copper-Rich Tetrahedrites. Chemistry of Materials, 2017, 29, 4080-4090.	6.7	66
44	Phase formation, microstructure development and thermoelectric properties of (ZnO)kIn2O3 ceramics. Journal of the European Ceramic Society, 2017, 37, 2833-2842.	5.7	15
45	Inversion Boundaries and Phonon Scattering in Ga:ZnO Thermoelectric Compounds. Inorganic Chemistry, 2017, 56, 480-487.	4.0	42
46	The crucial role of selenium for sulphur substitution in the structural transitions and thermoelectric properties of Cu₅FeS₄ bornite. Dalton Transactions, 2017, 46, 2174-2183.	3.3	45
47	Structural and thermoelectric properties of n-type isocubanite CuFe₂S₃. Inorganic Chemistry Frontiers, 2017, 4, 424-432.	6.0	40
48	Designing a Thermoelectric Copper-Rich Sulfide from a Natural Mineral: Synthetic Germanite Cu₂₂Fe₈Ge₄S₃₂. Inorganic Chemistry, 2017, 56, 13376-13381.	4.0	40
49	Thermoelectric anisotropy and texture of intercalated TiS2. Applied Physics Letters, 2017, 111, .	3.3	30
50	Copper Hyper-Stoichiometry: The Key for the Optimization of Thermoelectric Properties in Stannoidite Cu_{8+x}Fe_{3â€“x}Sn₂S₁₂. Journal of Physical Chemistry C, 2017, 121, 16454-16461.	3.1	42
51	Structural analysis and thermoelectric properties of mechanically alloyed colusites. Journal of Materials Chemistry C, 2016, 4, 7455-7463.	5.5	42
52	Thermoelectric Materials: A New Rapid Synthesis Process for Nontoxic and Highâ€Performance Tetrahedrite Compounds. Journal of the American Ceramic Society, 2016, 99, 51-56.	3.8	62
53	The BiCu1â^'OS oxysulfide: Copper deficiency and electronic properties. Journal of Solid State Chemistry, 2016, 237, 292-299.	2.9	15
54	Tuning the thermoelectric properties of A-site deficient SrTiO₃ ceramics by vacancies and carrier concentration. Physical Chemistry Chemical Physics, 2016, 18, 26475-26486.	2.8	63

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55	Ba6â^'3x Nd8+2x Ti18O54 Tungsten Bronze: A New High-Temperature n-Type Oxide Thermoelectric. Journal of Electronic Materials, 2016, 45, 1894-1899.	2.2	17
56	Up-scaled synthesis process of sulphur-based thermoelectric materials. RSC Advances, 2016, 6, 10044-10053.	3.6	22
57	The impact of charge transfer and structural disorder on the thermoelectric properties of cobalt intercalated TiS₂. Journal of Materials Chemistry C, 2016, 4, 1871-1880.	5.5	32
58	Thermoelectric properties of TiS2 mechanically alloyed compounds. Journal of the European Ceramic Society, 2016, 36, 1183-1189.	5.7	37
59	Searching for new thermoelectric materials: some examples among oxides, sulfides and selenides. Journal of Physics Condensed Matter, 2016, 28, 013001.	1.8	56
60	A new wide band gap thermoelectric quaternary selenide Cu2MgSnSe4. Journal of Applied Physics, 2015, 118, .	2.5	24
61	Invited Article: A round robin test of the uncertainty on the measurement of the thermoelectric dimensionless figure of merit of Co0.97Ni0.03Sb3. Review of Scientific Instruments, 2015, 86, 011301.	1.3	92
62	Structural stability of the synthetic thermoelectric ternary and nickel-substituted tetrahedrite phases. Journal of Alloys and Compounds, 2015, 634, 253-262.	5.5	147
63	Synthesis and Thermoelectric Properties in the 2D Ti1 â€“ xNbxS3 Trichalcogenides. Materials, 2015, 8, 2514-2522.	2.9	25
64	Thermoelectric properties of Ca3Co4O9â€“Co3O4 composites. Ceramics International, 2015, 41, 10038-10043.	4.8	55
65	Silver intercalation in SPS dense TiS₂: staging and thermoelectric properties. Dalton Transactions, 2015, 44, 7887-7895.	3.3	32
66	Low thermal conductivity in ternary Cu4Sn7S16 compound. Acta Materialia, 2015, 97, 180-190.	7.9	61
67	On the effects of substitution, intercalation, non-stoichiometry and block layer concept in TiS₂ based thermoelectrics. Physical Chemistry Chemical Physics, 2015, 17, 24541-24555.	2.8	59
68	Microwave sintering of Ge-doped In2O3 thermoelectric ceramics prepared by slip casting process. Journal of the European Ceramic Society, 2015, 35, 145-151.	5.7	21
69	Ordered-Defect Sulfides as Thermoelectric Materials. Journal of Electronic Materials, 2014, 43, 2029-2034.	2.2	23
70	Mass Fluctuation Effect in Ti1â^'x Nb x S2 Bulk Compounds. Journal of Electronic Materials, 2014, 43, 1590-1596.	2.2	28
71	Design of Apparatus for Ni/Mg2Si and Ni/MnSi1.75 Contact Resistance Determination for Thermoelectric Legs. Journal of Electronic Materials, 2014, 43, 2023-2028.	2.2	39
72	ZrSe₃-Type Variant of TiS₃: Structure and Thermoelectric Properties. Chemistry of Materials, 2014, 26, 5585-5591.	6.7	44

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73	Electron doping and phonon scattering in Ti 1+ x S 2 thermoelectric compounds. Acta Materialia, 2014, 78, 86-92.	7.9	70
74	Textured Al-doped ZnO ceramics with isotropic grains. Journal of the European Ceramic Society, 2014, 34, 4247-4256.	5.7	26
75	Thermoelectric properties of In0.2Co4Sb12 skutterudites with embedded PbTe or ZnO nanoparticles. Journal of Alloys and Compounds, 2014, 589, 513-523.	5.5	25
76	Thermoelectric properties in the series Ti1-xTaxS2. Journal of Applied Physics, 2014, 115, .	2.5	39
77	A copper-containing oxytelluride as a promising thermoelectric material for waste heat recovery. Journal of Materials Chemistry A, 2013, 1, 520-523.	10.3	59
78	From oxides to selenides and sulfides: The richness of the CdI₂ type crystallographic structure for thermoelectric properties. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 69-81.	1.8	69
79	Thermoelectric Ceramics for Energy Harvesting. Journal of the American Ceramic Society, 2013, 96, 1-23.	3.8	286
80	Transport and magnetic properties of highly densified CoS2 ceramic. Journal of Applied Physics, 2013, 114, .	2.5	20
81	Revisiting some chalcogenides for thermoelectricity. Science and Technology of Advanced Materials, 2012, 13, 053003.	6.1	58
82	CdI2 structure type as potential thermoelectric materials: Synthesis and high temperature thermoelectric properties of the solid solution TiSxSe2â˜'x. Journal of Alloys and Compounds, 2012, 521, 121-125.	5.5	31
83	Transport and thermoelectric properties in Copper intercalated TiS2 chalcogenide. Applied Physics Letters, 2011, 99, .	3.3	149
84	Mg substitution in CuCrO2 delafossite compounds. Solid State Communications, 2011, 151, 1798-1801.	1.9	31
85	Preparation of Ni-doped ZnO ceramics for thermoelectric applications. Journal of the European Ceramic Society, 2011, 31, 2957-2963.	5.7	117
86	Improved thermoelectric properties in directionally grown Bi2Sr2Co1.8Oy ceramics by Pb for Bi substitution. Materials Research Bulletin, 2011, 46, 2537-2542.	5.2	45
87	Solution-based synthesis routes to thermoelectric Bi2Ca2Co1.7Ox. Journal of the European Ceramic Society, 2011, 31, 1763-1769.	5.7	53
88	Promising thermoelectric properties in AgxMo9Se11 compounds (3.4â‰¤xâ‰¤3.9). Applied Physics Letters, 2011, 98, 162106.	3.3	52
89	Tuning of dimensionless figure of merit via boundary scattering in In2O3-Î´. Journal of Applied Physics, 2011, 110, 124304.	2.5	9
90	Improved Thermoelectric Properties of Bi-M-Co-O (MÂ=ÂSr, Ca) Misfit Compounds by Laser Directional Solidification. Journal of Electronic Materials, 2010, 39, 1601-1605.	2.2	37

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91	Enhancement of the thermoelectric properties of directionally grown Biâ€“Caâ€“Coâ€“O through Pb for Bi substitution. Journal of the European Ceramic Society, 2010, 30, 1815-1820.	5.7	39
92	High thermoelectric power factor in Fe-substituted Mo3Sb7. Applied Physics Letters, 2010, 96, 262103.	3.3	13
93	Thermoelectric Oxides: Effect of Doping in Delafossites and Zinc Oxide. Journal of Electronic Materials, 2009, 38, 1104-1108.	2.2	54
94	On the strong impact of doping in the triangular antiferromagnet CuCrO2. Solid State Communications, 2009, 149, 962-967.	1.9	73
95	Improvement of Bi2Sr2Co1.8Ox thermoelectric properties by laser floating zone texturing. Solid State Ionics, 2009, 180, 827-830.	2.7	45
96	Tuning the transport and thermoelectric properties of In2O3 bulk ceramics through doping at In-site. Journal of Applied Physics, 2009, 106, .	2.5	99
97	Synthesis of calcium carbonate polymorphs in the presence of polyacrylic acid. Journal of Crystal Growth, 2008, 310, 2832-2841.	1.5	79
98	Intrinsic magnetic properties of In2O3 and transition metal-doped-In2O3. Journal of Magnetism and Magnetic Materials, 2008, 320, 983-989.	2.3	72
99	Thermoelectric ceramics for generators. Journal of the European Ceramic Society, 2008, 28, 41-48.	5.7	70
100	:Ge, a promising n-type thermoelectric oxide composite. Solid State Communications, 2008, 146, 97-101.	1.9	158
101	Neutron diffraction texture analysis and thermoelectric properties of BiCaCoO misfit compounds. Materials Research Bulletin, 2008, 43, 394-400.	5.2	17
102	Enhancement of the thermoelectric performances of In2O3 by the coupled substitution of M2+/Sn4+ for In3+. Journal of Applied Physics, 2008, 104, .	2.5	37
103	Modulated Misfit Structure of the Thermoelectric [Bi0.84CaO2]2[CoO2]1.69 Cobalt Oxide. Inorganic Chemistry, 2008, 47, 2464-2471.	4.0	23
104	Fabrication and properties of textured Bi-based cobaltite thermoelectric rods by zone melting. Journal of the European Ceramic Society, 2007, 27, 3697-3700.	5.7	39
105	Magnetic properties of bulk Fe-doped indium oxide. Journal of Physics Condensed Matter, 2007, 19, 236224.	1.8	41
106	Effect of Bi Substitution on Microstructure and Thermoelectric Properties of Polycrystalline [Ca2CoO3]pCoO2. Japanese Journal of Applied Physics, 2006, 45, 4152-4158.	1.5	18
107	Rietveld texture analysis of complex oxides: examples of polyphased Bi2223 superconducting and Co349 thermoelectric textured ceramics characterization using neutron and X-ray diffraction. Journal of Applied Crystallography, 2005, 38, 199-210.	4.5	28
108	Enhancement of Electrical Properties of the Thermoelectric Compound Ca3Co4O9 through Use of Large-grained Powder. Journal of Materials Research, 2005, 20, 2491-2497.	2.6	36

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109	Synthesis and thermoelectric properties of Bi2.5Ca2.5Co2Ox layered cobaltites. Journal of Materials Research, 2005, 20, 1002-1008.	2.6	44
110	Rietveld Texture Analysis of Alumina Ceramics by Neutron Diffraction. Chemistry of Materials, 2005, 17, 102-106.	6.7	22
111	Thermoelectric propertiesâ€“texture relationship in highly oriented Ca3Co4O9 composites. Applied Physics Letters, 2004, 85, 1490-1492.	3.3	54
112	The effect of MgO addition on the formation and the superconducting properties of the Bi2223 phase. Physica C: Superconductivity and Its Applications, 2003, 387, 382-390.	1.2	69
113	Sinter-forging of strongly textured Bi2223 discs with largeJcs: nucleation and growth of Bi2223 from Bi2212 crystallites. Superconductor Science and Technology, 2002, 15, 1436-1444.	3.5	17
114	The effect of Bi2201 phase on the intergranular critical field and current density in Bi2223 superconductors. Physica C: Superconductivity and Its Applications, 2002, 377, 304-312.	1.2	15
115	Modelling of the magnetic behaviour of random granular superconductors by the single junction model. Superconductor Science and Technology, 2001, 14, 904-909.	3.5	20