

Christophe Candolfi

List of Publications by Year in descending order

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125
papers

2,738
citations

236612

25
h-index

233125

45
g-index

129
all docs

129
docs citations

129
times ranked

2343
citing authors

#	ARTICLE	IF	CITATIONS
1	A Tunable Structural Family with Ultralow Thermal Conductivity: Copper-Deficient $\text{Cu}_{1-x}\text{Bi}_{1+x}\text{Sb}_3$. <i>Journal of the American Chemical Society</i> , 2022, 144, 1846-1860.	3.6	15
2	Influence of Thermoelectric Properties and Parasitic Effects on the Electrical Power of Thermoelectric Micro-Generators. <i>Energies</i> , 2022, 15, 3746.	1.6	0
3	Enhanced thermoelectric performance in $\text{Mg}_{3+x}\text{Sb}_{1.5}\text{Bi}_{0.49}\text{Te}_{0.01}$ via engineering microstructure through melt-centrifugation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 1733-1742.	5.2	20
4	Synthesis and physical properties of single-crystalline InTe: towards high thermoelectric performance. <i>Journal of Materials Chemistry C</i> , 2021, 9, 5250-5260.	2.7	18
5	Ordered sphalerite derivative $\text{Cu}_5\text{Sn}_2\text{S}_7$: a degenerate semiconductor with high carrier mobility in the Cu-Sn-S diagram. <i>Journal of Materials Chemistry A</i> , 2021, 9, 10812-10826.	5.2	23
6	Residual resistivity as an independent indicator of resonant levels in semiconductors. <i>Materials Horizons</i> , 2021, 8, 1735-1743.	6.4	12
7	Phase-Transition-Enhanced Thermoelectric Transport in Rickardite Mineral Cu_3Te_2 . <i>Chemistry of Materials</i> , 2021, 33, 1832-1841.	3.2	9
8	Thermoelectric materials for space applications. <i>CEAS Space Journal</i> , 2021, 13, 325-340.	1.1	13
9	Issues and opportunities from Peltier effect in functionally-graded colusites: From SPS temperature modeling to enhanced thermoelectric performances. <i>Applied Materials Today</i> , 2021, 22, 100948.	2.3	6
10	Synthesis, crystal structure and transport properties of the cluster compounds $\text{Tl}_2\text{Mo}_{15}\text{S}_{19}$ and $\text{Ag}_3\text{Tl}_2\text{Mo}_{15}\text{S}_{19}$. <i>Materials Research Bulletin</i> , 2021, 136, 111152.	2.7	5
11	High Power Density Thermoelectric Generators with Skutterudites. <i>Advanced Energy Materials</i> , 2021, 11, 2100580.	10.2	25
12	Anharmonicity and Effect of the Nanostructuring on the Lattice Dynamics of CrSi_2 . <i>Journal of Physical Chemistry C</i> , 2021, 125, 14786-14796.	1.5	7
13	Oxidation Behavior of the Skutterudite Material $\text{Yb}_{0.2}\text{Co}_4\text{Sb}_{12}$. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 3996-4002.	1.1	2
14	Thermoelectric characterization of the clathrate-I solid solution $\text{Ba}_8\text{AuxGe}_4\text{x}$. <i>Applied Physics Letters</i> , 2021, 119, 063902.	1.5	4
15	$\text{Tl}_{0.6}\text{Mo}_3\text{S}_5$, an original large tunnel-like molybdenum sulfide with Mo zigzag chains and disordered Tl cations. <i>Materials Advances</i> , 2021, 2, 6020-6030.	2.6	2
16	Enhanced thermoelectric performance of InTe through Pb doping. <i>Journal of Materials Chemistry C</i> , 2021, 9, 14490-14496.	2.7	13
17	Stress/pressure-stabilized cubic polymorph of Li_3Sb with improved thermoelectric performance. <i>Journal of Materials Chemistry A</i> , 2021, 9, 25024-25031.	5.2	4
18	Local-Disorder-Induced Low Thermal Conductivity in Degenerate Semiconductor $\text{Cu}_{22}\text{Sn}_{10}\text{S}_{32}$. <i>Inorganic Chemistry</i> , 2021, 60, 16273-16285.	1.9	14

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37	SnSe: Breakthrough or Not Breakthrough?. , 2019, , 23-46.		1
38	Comprehensive study of the low-temperature transport properties of polycrystalline $S_{n-1}X$		

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55	Towards the prediction of the transport properties of cluster-based molybdenum chalcogenides. <i>Journal of Materials Chemistry C</i> , 2017, 5, 12097-12104.	2.7	12
56	HPHT synthesis of highly doped $\text{In}_x\text{Co}_4\text{Sb}_{12}$ " Experimental and theoretical study. <i>Journal of Alloys and Compounds</i> , 2017, 727, 1178-1188.	2.8	16
57	Synthesis, Crystal Structure, and Transport Properties of the Hexagonal Mo_9 Cluster Compound $\text{Ag}_3\text{RbMo}_9\text{Se}_{11}$. <i>Inorganic Chemistry</i> , 2017, 56, 9684-9692.	1.9	14
58	High-Temperature Transport Properties of Colusite $\text{Cu}_{24}\text{T}_2\text{V}_2\text{Ge}_6\text{S}_{32}$ ($\text{T}=\text{Ni, Co}$). <i>Journal of Electronic Materials</i> , 2017, 46, 2684-2690.	1.0	18
59	Structural and Electrical Properties Characterization of $\text{Sb}_{1.52}\text{Bi}_{0.48}\text{Te}_{3.0}$ Melt-Spun Ribbons. <i>Crystals</i> , 2017, 7, 172.	1.0	5
60	High-temperature thermoelectric properties of the Bi_2Te_3 solid solution. <i>APL Materials</i> , 2016, 4, 104901.	2.2	8
61	Electronic structure, low-temperature transport and thermodynamic properties of polymorphic Bi_2Te_3 . <i>RSC Advances</i> , 2016, 6, 52048-52057.	1.7	11
62	Cu Insertion Into the Mo_{12} Cluster Compound $\text{Cs}_2\text{Mo}_{12}\text{Se}_{14}$: Synthesis, Crystal and Electronic Structures, and Physical Properties. <i>Inorganic Chemistry</i> , 2016, 55, 6616-6624.	1.9	16
63	Synthesis, crystal structure and high-temperature transport properties of the new cluster compound $\text{Rb}_2\text{Mo}_{15}\text{Se}_{19}$. <i>Journal of Solid State Chemistry</i> , 2016, 237, 1-6.	1.4	11
64	Low-Temperature Transport Properties of Bi-Substituted Bi_2Te_3 Compounds. <i>Journal of Electronic Materials</i> , 2016, 45, 1786-1791.	1.0	7
65	Investigation of the Nozzle Diameter as a Control Parameter of the Properties of Melt-Spun $\text{Sb}_{2-x}\text{Bi}_x\text{Te}_3$. <i>Journal of Electronic Materials</i> , 2016, 45, 1419-1424.	1.0	5
66	High thermoelectric performance in Sn-substituted Bi_2Te_3 . <i>Journal of Materials Chemistry C</i> , 2016, 4, 2329-2338.	2.7	17
67	Thermoelectric properties of double-substituted tetrahedrites $\text{Cu}_{12-x}\text{Co}_x\text{Sb}_4\text{Te}_y\text{S}_{13}$. <i>Dalton Transactions</i> , 2016, 45, 7294-7302.	1.6	32
68	High Temperature Transport Properties of Tetrahedrite $\text{Cu}_{12-x}\text{M}_x\text{Sb}_4\text{Te}_y\text{S}_{13}$ ($\text{M}=\text{Zn, Ni}$) Compounds. <i>Journal of Electronic Materials</i> , 2016, 45, 1601-1605.	1.0	27
69	Electrical, Thermal, and Magnetic Characterization of Natural Tetrahedrites "Tennantites of Different Origin. <i>Journal of Electronic Materials</i> , 2016, 45, 1351-1357.	1.0	7
70	Thermoelectric Properties of the Bi_2Te_3 Crystalline Phase. <i>Journal of Electronic Materials</i> , 2016, 45, 1447-1452.	1.0	17
71	Influence of Preparation Processing on the Transport Properties of Melt-Spun $\text{Sb}_{2-x}\text{Bi}_x\text{Te}_{3+y}$. <i>Journal of Electronic Materials</i> , 2016, 45, 1561-1569.	1.0	7
72	From crystal to glass-like thermal conductivity in crystalline minerals. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19751-19758.	1.3	96

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73	Inelastic neutron scattering study of the lattice dynamics in the clathrate compound BaGe ₅ . Journal of Physics Condensed Matter, 2015, 27, 485401.	0.7	6
74	Exsolution Process as a Route toward Extremely Low Thermal Conductivity in Cu ₁₂ Sb ₄ Te ₁₃ Tetrahedrites. Chemistry of Materials, 2015, 27, 8354-8361.	3.2	49
75	Invited Article: A round robin test of the uncertainty on the measurement of the thermoelectric dimensionless figure of merit of Co _{0.97} Ni _{0.03} Sb ₃ . Review of Scientific Instruments, 2015, 86, 011301.	0.6	92
76	High-Temperature Thermoelectric Properties of Sn-Doped As ₂ Te ₃ . Advanced Electronic Materials, 2015, 1, 1400008.	2.6	32
77	Nanostructured CoSi Obtained by Spark Plasma Sintering. Journal of Electronic Materials, 2015, 44, 1963-1966.	1.0	9
78	Transport Properties of Polycrystalline p-type SnSe. Materials Today: Proceedings, 2015, 2, 690-698.	0.9	19
79	Electronic band structure and low-temperature transport properties of the type-I clathrate Ba ₈ Ni _x Ge _{46-x} . Dalton Transactions, 2015, 44, 7524-7537.	1.6	10
80	Effective medium theory based modeling of the thermoelectric properties of composites: comparison between predictions and experiments in the glass-crystal composite system Si ₁₀ As ₁₅ Te ₇₅ Bi _{0.4} Sb _{1.6} Te ₃ . Journal of Materials Chemistry C, 2015, 3, 11090-11098.	2.7	33
81	Polymorphism in Thermoelectric As ₂ Te ₃ . Inorganic Chemistry, 2015, 54, 9936-9947.	1.9	25
82	Crystal structure, electronic band structure and high-temperature thermoelectric properties of Te-substituted tetrahedrites Cu ₁₂ Sb ₄ Te _x S ₁₃ (0.5 ≤ x ≤ 1). Journal of Applied Physics, 2015, 117, 094101.	1.7	10
83	High temperature thermoelectric properties of the type-I clathrate Ba ₈ Ni _x Ge _{46-x} . Journal of Physics Condensed Matter, 2014, 26, 485801.	0.7	10
84	X-ray Characterization, Electronic Band Structure, and Thermoelectric Properties of the Cluster Compound Ag ₂ Tl ₂ Mo ₉ Se ₁₁ . Inorganic Chemistry, 2014, 53, 11699-11709.	1.9	43
85	Assessment of the thermoelectric performance of polycrystalline p-type SnSe. Applied Physics Letters, 2014, 104, .	1.5	323
86	Comprehensive Study of the Low-Temperature Transport and Thermodynamic Properties of the Cluster Compounds Ag _x Mo ₉ Se ₁₁ (3.41 ≤ x ≤ 3.78). Chemistry of Materials, 2014, 26, 4765-4775.	3.2	24
87	Thermoelectric properties of In _{0.2} Co ₄ Sb ₁₂ skutterudites with embedded PbTe or ZnO nanoparticles. Journal of Alloys and Compounds, 2014, 589, 513-523.	2.8	25
88	A comprehensive study of the crystallization of CuAsTe glasses: microstructure and thermoelectric properties. Journal of Materials Chemistry A, 2013, 1, 8190.	5.2	39
89	Thermal stability and thermoelectric properties of Cu _x As _{40-x} Te _{60-y} Se _y semiconducting glasses. Journal of Solid State Chemistry, 2013, 203, 212-217.	1.4	29
90	High temperature thermoelectric properties of CoSb ₃ skutterudites with PbTe inclusions. Journal of Materials Science, 2013, 48, 2761-2766.	1.7	14

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91	Influence of ZnO nano-inclusions on the transport properties of the CoSb ₃ skutterudite. Journal of Alloys and Compounds, 2013, 554, 340-347.	2.8	14
92	Diffusion-Controlled Formation of Ti ₂ O ₃ during Spark-Plasma Synthesis. Inorganic Chemistry, 2013, 52, 4458-4463.	1.9	35
93	Electronic band structure, magnetic, transport and thermodynamic properties of In-filled skutterudites In _x Co ₄ Sb ₁₂ . Journal Physics D: Applied Physics, 2013, 46, 495106.	1.3	39
94	High temperature thermoelectric properties of the type-I clathrate Ba ₈ Au _x Si ₄₆ . Journal of Applied Physics, 2012, 111, .	1.1	28
95	Synthesis, Crystal Structure, and Physical Properties of the Type-I Clathrate Ba ₈ Y _{1-x} Ni _x Si ₄₆ . Inorganic Chemistry, 2012, 51, 4730-4741.	1.9	29
96	Synthesis, Crystal and Electronic Structures, and Thermoelectric Properties of the Novel Cluster Compound Ag ₃ In ₂ Mo ₁₅ Se ₁₉ . Chemistry of Materials, 2012, 24, 2899-2908.	3.2	53
97	Influence of Ni impurities on the thermoelectric properties of Ca-partially filled skutterudites Ca _x Co ₄ Sb ₁₂ . Applied Physics Letters, 2012, 101, .	1.5	16
98	Facile General Route toward Tunable Magn@li Nanostructures and Their Use As Thermoelectric Metal Oxide/Carbon Nanocomposites. ACS Nano, 2011, 5, 9052-9061.	7.3	95
99	Low-temperature magnetic, galvanomagnetic, and thermoelectric properties of the type-I clathrate Ba ₈ Au _x Si ₄₆ . Journal of Applied Physics, 2011, 110, 043715.	1.1	44
100	Low-temperature magnetic, galvanomagnetic, and thermoelectric properties of the type-I clathrates Ba ₈ Ni _x Si ₄₆ . Journal of Applied Physics, 2011, 110, 043715.	1.1	23
101	Atomic interactions in the p-type Clathrate I Ba ₈ Au _{5.3} Ge _{40.7} . Inorganic Chemistry, 2011, 50, 1250-1257.	1.9	142
102	Cage-Shaped Mo ₉ Chalcogenides: Promising Thermoelectric Materials with Significantly Low Thermal Conductivity. Journal of Electronic Materials, 2011, 40, 508-512.	1.0	7
103	Transport properties of the clathrate BaGe ₅ . Journal of Applied Physics, 2011, 110, 043715.	1.1	12
104	Generalized phonon density of states of Mo ₃ Sb ₇ and Mo ₈ Ge ₄₃ . Journal of Applied Physics, 2011, 110, 043715.	1.1	4
105	Crystal structure and thermoelectric properties of the type-I clathrate Ba ₈ Ge ₄₃ . Journal of Applied Physics, 2011, 110, 043715.	1.1	9
106	Crystal Structure and High-Temperature Thermoelectric Properties of the Mo ₃ x Ru _x Sb ₇ Compounds. Journal of Electronic Materials, 2010, 39, 2132-2135.	1.0	5
107	Thermoelectric Properties of the Clathrate I Ba ₈ Ge ₄₃ . Journal of Electronic Materials, 2010, 39, 2039-2042.	1.0	14
108	High thermoelectric power factor in Fe-substituted Mo ₃ Sb ₇ . Applied Physics Letters, 2010, 96, 262103.	1.5	13

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109	Transport and magnetic properties of $\text{Mo}_{2.5}\text{Ru}_{0.5}\text{Sb}_7$. <i>Journal of Applied Physics</i> , 2010, 107, .	1.1	6
110	High temperature thermoelectric properties of $\text{Mo}_3\text{Sb}_7\text{Te}$ (0.0 to 1.8). <i>Journal of Physics Condensed Matter</i> , 2010, 22, 025801.	0.7	12
111	BaGe_5 : A New Type of Intermetallic Clathrate. <i>Journal of the American Chemical Society</i> , 2010, 132, 10984-10985.	6.6	39
112	Crystal structure and transport properties of $\text{Ba}_8\text{Ge}_{43}$. <i>Dalton Transactions</i> , 2010, 39, 1078-1088.	1.6	77
113	Low-temperature galvanomagnetic, magnetic, and thermoelectric properties of $\langle \text{math} \text{xmlns:mml}="http://www.w3.org/1998/Math/MathML" \rangle$		