Michihiro Ohta

List of Publications by Year
in descending order

92	3,076	185998 28	161609 54
papers	citations	h-index	g-index

97	97	97	2429
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High thermoelectric performance in low-cost SnS _{0.91} Se _{0.09} crystals. Science, 2019, 365, 1418-1424.	6.0	395
2	Power generation from nanostructured PbTe-based thermoelectrics: comprehensive development from materials to modules. Energy and Environmental Science, 2016, 9, 517-529.	15.6	287
3	High-performance thermoelectric mineral Cu12â^'xNixSb4S13 tetrahedrite. Journal of Applied Physics, 2013, 113, .	1.1	262
4	Excessively Doped PbTe with Ge-Induced Nanostructures Enables High-Efficiency Thermoelectric Modules. Joule, 2018, 2, 1339-1355.	11.7	169
5	Enhancement of Thermoelectric Figure of Merit by the Insertion of MgTe Nanostructures in pâ€type PbTe Doped with Na₂Te. Advanced Energy Materials, 2012, 2, 1117-1123.	10.2	123
6	High-performance thermoelectric minerals: Colusites Cu26V2M6S32 (Mâ€‰=â€‰Ge, Sn). Applied Physics Letters, 2014, 105, .	1.5	117
7	Thermoelectric power generation: from new materials to devices. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180450.	1.6	116
8	Na Doping in PbTe: Solubility, Band Convergence, Phase Boundary Mapping, and Thermoelectric Properties. Journal of the American Chemical Society, 2020, 142, 15464-15475.	6.6	101
9	High-Performance Thermoelectric Bulk Colusite by Process Controlled Structural Disordering. Journal of the American Chemical Society, 2018, 140, 2186-2195.	6.6	98
10	Structural stability enables high thermoelectric performance in room temperature Ag₂Se. Journal of Materials Chemistry A, 2020, 8, 13024-13037.	5.2	76
11	Hierarchical Architecturing for Layered Thermoelectric Sulfides and Chalcogenides. Materials, 2015, 8, 1124-1149.	1.3	65
12	Thermoelectric properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ti</mml:mtext></mml:mrow><mml:mrow><mml:mn>1</mml:m prepared by CS2 sulfurization. Acta Materialia, 2012, 60, 7232-7240.	3.8	63
13	Enhanced average thermoelectric figure of merit of n-type PbTe_{1â^'x}I_xâ€“MgTe. Journal of Materials Chemistry C, 2015, 3, 10401-10408.	2.7	61
14	Low lattice thermal conductivity in Pb₅Bi₆Se₁₄, Pb₃Bi₂S₆, and PbBi₂S₄: promising thermoelectric materials in the cannizzarite, lillianite, and galenobismuthite homologous series. Journal of Materials Chemistry A, 2014, 2, 20048-20058.	5.2	59
15	Vanadium-free colusites Cu₂₆A₂Sn₆S₃₂(A = Nb, Ta) for environmentally friendly thermoelectrics. Journal of Materials Chemistry A, 2016, 4, 15207-15214.	5.2	58
16	Enhancement in the thermoelectric performance of colusites Cu₂₆A₂E₆S₃₂(A = Nb, Ta; E = Sn, Ge) using E-site non-stoichiometry. Journal of Materials Chemistry C, 2017, 5, 4174-4184.	2.7	49
17	Preparation of R2S3 (R: La, Pr, Nd, Sm) powders by sulfurization of oxide powders using CS2 gas. Journal of Alloys and Compounds, 2004, 374, 112-115.	2.8	44
18	Thermal Decomposition of NH₄SCN for Preparation of Ln₂S₃ (Ln=La and Gd) by Sulfurization. Materials Transactions, 2009, 50, 1885-1889.	0.4	41

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19	Atomic-scale phonon scatterers in thermoelectric colusites with a tetrahedral framework structure. Journal of Materials Chemistry A, 2019, 7, 228-235.	5.2	41
20	Preparation and Thermoelectric Properties of Chevrel-Phase Cu<I>_x</I>Mo₆S₈ (2.0≤<I>x</I>≤4.0). Materials Transactions, 2009, 50, 2129-2133.	0.4	39
21	Microstructural Control and Thermoelectric Properties of Misfit Layered Sulfides (LaS)_{1+m}TS₂ (T = Cr, Nb): The Natural Superlattice Systems. Chemistry of Materials, 2014, 26, 2684-2692.	3.2	39
22	Effects of Ge and Sn substitution on the metalâ€“semiconductor transition and thermoelectric properties of Cu₁₂Sb₄S₁₃tetrahedrite. Physical Chemistry Chemical Physics, 2017, 19, 8874-8879.	1.3	39
23	Three-Dimensional Finite-Element Simulation for a Thermoelectric Generator Module. Journal of Electronic Materials, 2015, 44, 3637-3645.	1.0	38
24	Power Generation Evaluated on a Bismuth Telluride Unicouple Module. Journal of Electronic Materials, 2015, 44, 1785-1790.	1.0	35
25	Tuning the charge carrier density in the thermoelectric colusite. Journal of Applied Physics, 2016, 119, .	1.1	35
26	Measurement and simulation of thermoelectric efficiency for single leg. Review of Scientific Instruments, 2015, 86, 045103.	0.6	33
27	Power generation from the Cu₂₆Nb₂Ge₆S₃₂-based single thermoelectric element with Au diffusion barrier. Journal of Materials Chemistry C, 2019, 7, 5184-5192.	2.7	33
28	Thermoelectric Properties of Bi₂Te₃-Based Thin Films with Fine Grains Fabricated by Pulsed Laser Deposition. Japanese Journal of Applied Physics, 2009, 48, 085506.	0.8	31
29	An Integrated Approach to Thermoelectrics: Combining Phonon Dynamics, Nanoengineering, Novel Materials Development, Module Fabrication, and Metrology. Advanced Energy Materials, 2019, 9, 1801304.	10.2	26
30	Nanostructural and Microstructural Ordering and Thermoelectric Property Tuning in Misfit Layered Sulfide [(LaS)_x]_{1.14}NbS₂. Chemistry of Materials, 2015, 27, 7719-7728.	3.2	25
31	Thermoelectric Properties and Electronic Structures of CuTi₂S₄ Thiospinel and Its Derivatives: Structural Design for Spinel-Related Thermoelectric Materials. Inorganic Chemistry, 2019, 58, 1425-1432.	1.9	24
32	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.	3.2	24
33	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	0.9	24
34	Temperature-Dependent Structural Variation and Cu Substitution in Thermoelectric Silver Selenide. ACS Applied Energy Materials, 2020, 3, 2160-2167.	2.5	22
35	Thermoelectric properties of Th3P4-type rare-earth sulfides Ln2S3 (Ln=Gd, Tb) prepared by reaction of their oxides with CS2 gas. Journal of Alloys and Compounds, 2008, 451, 627-631.	2.8	19
36	High power factor in thiospinels Cu2TrTi3S8 (Tr= Mn, Fe, Co, Ni) arising from TiS6 octahedron network. Applied Physics Letters, 2016, 109, .	1.5	19

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37	Thermoelectric Properties of Chevrel-Phase Sulfides M x Mo6S8 (M: Cr, Mn, Fe, Ni). Journal of Electronic Materials, 2010, 39, 2117-2121.	1.0	18
38	Phase transformation and microstructures of Ln2S3 (Ln = La, Sm) with different impurities content of oxygen and carbon. Journal of Alloys and Compounds, 2006, 408-412, 551-555.	2.8	17
39	Preparation and Thermoelectric Properties of LaGd1+x S3 and SmGd1+x S3. Journal of Electronic Materials, 2011, 40, 537-542.	1.0	17
40	Carrier concentration tuning in thermoelectric thiospinel Cu2CoTi3S8 by oxidative extraction of copper. Journal of Solid State Chemistry, 2018, 259, 5-10.	1.4	17
41	Effect of non-stoichiometry on thermoelectric properties of -Tb2S3â^'x. Journal of Alloys and Compounds, 2006, 418, 209-212.	2.8	16
42	Thermoelectric Properties of NdGd1+x S3 Prepared by CS2 Sulfurization. Journal of Electronic Materials, 2009, 38, 1287-1292.	1.0	16
43	Sustainable thermoelectric materials fabricated by using Cu2Sn1-xZnxS3 nanoparticles as building blocks. Applied Physics Letters, 2017, 111, .	1.5	16
44	Addition of Co, Ni, Fe and their role in the thermoelectric properties of colusite Cu26Nb2Ge6S32. Journal of Alloys and Compounds, 2018, 735, 1838-1845.	2.8	15
45	Phase transformation from tetragonal-phase to cubic-phase due to addition of titanium in lanthanum sesquisulfide. Journal of Alloys and Compounds, 2004, 374, 116-119.	2.8	14
46	Effect of sulfur substitution on the thermoelectric properties of (SnSe)_{1.16}NbSe₂: charge transfer in a misfit layered structure. RSC Advances, 2016, 6, 105653-105660.	1.7	13
47	Enhancement of the Thermoelectric Figure of Merit in Blended Cu₂Sn_{1â€“x}Zn_xS₃ Nanobulk Materials. ACS Applied Nano Materials, 2018, 1, 4819-4827.	2.4	13
48	Increased Seebeck Coefficient and Decreased Lattice Thermal Conductivity in Grain-Size-Controlled p-Type PbTeâ€“MgTe System. ACS Applied Energy Materials, 2018, 1, 6586-6592.	2.5	12
49	Colloid Chemical Approach for Fabricating Cuâ€“Feâ€“S Nanobulk Thermoelectric Materials by Blending Cu₂S and FeS Nanoparticles as Building Blocks. Industrial & Engineering Chemistry Research, 2019, 58, 3688-3697.	1.8	12
50	Localized relaxation in stabilized zirconia. Physica B: Condensed Matter, 2002, 316-317, 427-429.	1.3	10
51	Gram-Scale Synthesis of Tetrahedrite Nanoparticles and Their Thermoelectric Properties. Langmuir, 2019, 35, 16335-16340.	1.6	9
52	Influence of dopant ion on localized relaxation of an oxygen vacancy in stabilized zirconia. Physical Review B, 2002, 65, .	1.1	8
53	Synthesis of multinary rare-earth sulfides PrGdS3, NdGdS3, and SmEuGdS4, and investigation of their thermoelectric properties. Journal of Alloys and Compounds, 2009, 484, 268-272.	2.8	8
54	Enhancing the Thermoelectric Properties of Misfit Layered Sulfides (MS)1.2+q(NbS2)n (M = Gd and Dy) through Structural Evolution and Compositional Tuning. ACS Omega, 2020, 5, 13006-13013.	1.6	8

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55	Mechanically durable thermoelectric power generation module made of Ni-based alloy as a reference for reliable testing. Applied Energy, 2020, 260, 114443.	5.1	8
56	Synthesis of LnCuS₂ (Ln=Ce, Pr, Nd, Sm, Gd, and Tb) Powder by Polymerized Complex Method and CS₂ Gas Sulfurization. Materials Transactions, 2010, 51, 2289-2293.	0.4	7
57	Nanobulk Thermoelectric Materials Fabricated from Chemically Synthesized Cu₃Zn_{1â€“x}Al_xSnS_{5â€“y} Nanocrystals. ACS Omega, 2019, 4, 16402-16408.	1.6	7
58	Interlaboratory Testing for Highâ€Temperature Power Generation Characteristics of a Niâ€Based Alloy Thermoelectric Module. Energy Technology, 2020, 8, 2000557.	1.8	7
59	Synergistic Effect of Chemical Substitution and Insertion on the Thermoelectric Performance of Cu₂₆V₂Ge₆S₃₂ Colusite. Inorganic Chemistry, 2021, 60, 11364-11373.	1.9	7
60	A prototype thermoelectric module based on p-type colusite together with n-type nanostructured PbTe for power generation. Applied Physics Letters, 2022, 120, 013501.	1.5	6
61	Internal Friction Due to Localized Relaxation around Y-ions in Single Crystal Yttria-Stabilized Zirconia. Japanese Journal of Applied Physics, 2001, 40, 5377-5381.	0.8	5
62	Low-Temperature Formation of Cubic Th3P4-type Gadolinium and Holmium Sesquisulfides. Journal of MMIJ, 2010, 126, 450-455.	0.4	5
63	Thermoelectric Properties of Selenospinel Cu6Fe4Sn12Se32. Journal of Electronic Materials, 2012, 41, 1130-1133.	1.0	5
64	Enhancement of the thermoelectric power factor by tuning the carrier concentration in Cu-rich and Ge-poor colusites Cu26+xNb2Ge6â^'xS32. Journal of Materials Chemistry C, 2020, 8, 6442-6449.	2.7	5
65	Morphology and the Thermoelectric Properties of Î³-GdxDy1Ââ€“ÂxS1.5Ââ€“Ây Solid Solution Ceramics. Physics of the Solid State, 2020, 62, 611-620.	0.2	5
66	Realizing Excellent nâ€•and pâ€Type Niobiumâ€Based Halfâ€Heusler Compounds Based on Thermoelectric Properties and Highâ€Temperature Stability. Advanced Electronic Materials, 2020, 6, 2000083.	2.6	4
67	Fabrication and Evaluation of Low-Cost CrSi2 Thermoelectric Legs. Crystals, 2021, 11, 1140.	1.0	4
68	Thermoelectric properties of lanthanum sesquisulfide with Ti additive. Applied Physics Letters, 2005, 87, 042106.	1.5	3
69	Preparation of Single-Phase Pb-Filled Chevrel-Phase Sulfide and Its Thermoelectric Properties. Materials Transactions, 2011, 52, 1535-1538.	0.4	3
70	Synthetic minerals tetrahedrites and colusites for thermoelectric power generation. , 2021, , 197-216.		3
71	Synthesis of La₂S₃ Thin Films by Sulfurization of LaCl₃ and CS(NH₂)₂. Materials Transactions, 2006, 47, 1436-1439.	0.4	2
72	Thermoelectric Properties of Ternary Rare-Earth Copper Antimonides LaCu<I>_x</I>Sb₂ (0.9≤<I>x</I>≤1.3). Materials Transactions, 2009, 50, 1881-1884.	0.4	2

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73	Development of High Efficiency Thermoelectric Sulfides. Materia Japan, 2010, 49, 477-481.	0.1	2
74	Thermoelectric Materials: Enhancement of Thermoelectric Figure of Merit by the Insertion of MgTe Nanostructures in pâ€type PbTe Doped with Na₂Te (Adv. Energy Mater. 9/2012). Advanced Energy Materials, 2012, 2, 1038-1038.	10.2	2
75	Synthetic Copper-based Sulfide Minerals as Advanced Thermoelectric Materials and the Modularization for Power Generation. Materia Japan, 2015, 54, 335-338.	0.1	2
76	Effect of Gallium Substitution in Cu₃Al_{1â€“x}Ga_xSnS₅ Nanobulk Materials on Thermoelectric Properties. ACS Applied Energy Materials, 2020, 3, 5784-5791.	2.5	2
77	Thermoelectric properties of NdGdS3 prepared by reaction of oxides with CS2. , 2006, , .		1
78	High performance thermoelectrics for power generation using earth-abundant and low toxicity elements. Synthesiology, 2017, 10, 63-74.	0.2	1
79	Thermoelectric properties of paracostibite fabricated using chemically synthesized Coâ€“Sbâ€“S nanoparticles as building blocks. AIP Advances, 2020, 10, .	0.6	1
80	A comparative study of thermoelectric Cu2TrTi3S8 (Trâ€¯=â€¯Co and Sc) thiospinels: Enhanced Seebeck coefficient via electronic structure modification. Journal of Alloys and Compounds, 2021, 871, 159548.	2.8	1
81	Cuâ€“S-based thermoelectric compounds with a sphalerite-derived disordered crystal structure. Journal of Solid State Chemistry, 2022, 309, 122960.	1.4	1
82	Influence of phase on thermoelectric properties in lanthanum sesquisulfide doped with titanium. , 0, , .		0
83	Thermoelectric properties and phase stability of La/sub 10/S/sub 14/O. , 2005, , .		0
84	Synthesis of ternary rare-earth sulfides LnGdS<inf>3</inf> (Ln: Nd and Sm). , 2007, , .		0
85	Pulsed Laser Deposition of Titanium Sulfide Films from TiS2 Target under CS2 Pressure and their Thermoelectric Properties. Journal of MMIJ, 2008, 124, 648-652.	0.4	0
86	Microstructure and Thermoelectric Properties of Al-Doped ZnO Sintered Body. Materials Science Forum, 2010, 638-642, 2172-2177.	0.3	0
87	Hierarchical Structures for High-Performance Chalcogenides: From Tellurides to Sulfides. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2015, 79, 538-547.	0.2	0
88	High performance thermoelectrics for power generation using earth-abundant and low toxicity elements. Synthesiology, 2017, 10, 62-74.	0.2	0
89	Thermoelectrics: An Integrated Approach to Thermoelectrics: Combining Phonon Dynamics, Nanoengineering, Novel Materials Development, Module Fabrication, and Metrology (Adv. Energy) Tj ETQq1 1 0.784314 rgBT /Overlock	13.24	
90	Materials development and module fabrication in highly efficient lead tellurides. , 2021, , 247-267.		0

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91	DETECTION OF DUPULICATE INFORMATION IN A LARGE SOIL DRILLING LOG DATABASE. Geoinformatics, 2007, 18, 55-59.	0.2	0
92	9. All-scale phonon scattering. , 2020, , 181-210.		0