Michihiro Ohta

List of Publications by Citations

88 papers	2,223 citations	25 h-index	46 g-index
97 ext. papers	2,654 ext. citations	6.2 avg, IF	5.22 L-index

#	Paper	IF	Citations
88	High thermoelectric performance in low-cost SnSSe crystals. *Science*, **2019**, 365, 1418-1424	33.3	233
87	High-performance thermoelectric mineral Cu12□NixSb4S13 tetrahedrite. *Journal of Applied Physics*, **2013**, 113, 043712	2.5	222
86	Power generation from nanostructured PbTe-based thermoelectrics: comprehensive development from materials to modules. *Energy and Environmental Science*, **2016**, 9, 517-529	35.4	215
85	Excessively Doped PbTe with Ge-Induced Nanostructures Enables High-Efficiency Thermoelectric Modules. *Joule*, **2018**, 2, 1339-1355	27.8	109
84	Enhancement of Thermoelectric Figure of Merit by the Insertion of MgTe Nanostructures in p-type PbTe Doped with Na2Te. *Advanced Energy Materials*, **2012**, 2, 1117-1123	21.8	104
83	High-performance thermoelectric minerals: Colusites Cu26V2M6S32 (M = Ge, Sn). *Applied Physics Letters*, **2014**, 105, 132107	3.4	92
82	High-Performance Thermoelectric Bulk Colusite by Process Controlled Structural Disordering. *Journal of the American Chemical Society*, **2018**, 140, 2186-2195	16.4	70
81	Thermoelectric power generation: from new materials to devices. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2019**, 377, 20180450	3	70
80	Thermoelectric properties of prepared by CS2 sulfurization. *Acta Materialia*, **2012**, 60, 7232-7240	8.4	60
79	Enhanced average thermoelectric figure of merit of n-type PbTe1□IxMgTe. *Journal of Materials Chemistry C*, **2015**, 3, 10401-10408	7.1	57
78	Hierarchical Architecturing for Layered Thermoelectric Sulfides and Chalcogenides. *Materials*, **2015**, 8, 1124-1149	3.5	56
77	Na Doping in PbTe: Solubility, Band Convergence, Phase Boundary Mapping, and Thermoelectric Properties. *Journal of the American Chemical Society*, **2020**, 142, 15464-15475	16.4	46
76	Vanadium-free colusites Cu26A2Sn6S32 (A = Nb, Ta) for environmentally friendly thermoelectrics. *Journal of Materials Chemistry A*, **2016**, 4, 15207-15214	13	46
75	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	13	44
74	Structural stability enables high thermoelectric performance in room temperature Ag2Se. *Journal of Materials Chemistry A*, **2020**, 8, 13024-13037	13	39
73	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	5.7	39
72	Microstructural Control and Thermoelectric Properties of Misfit Layered Sulfides (LaS)1+mTS2 (T = Cr, Nb): The Natural Superlattice Systems. *Chemistry of Materials*, **2014**, 26, 2684-2692	9.6	34

71	Thermal Decomposition of NH4SCN for Preparation of Ln2S3 (Ln=La and Gd) by Sulfurization. *Materials Transactions*, **2009**, 50, 1885-1889	1.3	34
70	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	7.1	33
69	Preparation and Thermoelectric Properties of Chevrel-Phase CuxMo6S8 (2.0≤x≤4.0). *Materials Transactions*, **2009**, 50, 2129-2133	1.3	33
68	Effects of Ge and Sn substitution on the metal-semiconductor transition and thermoelectric properties of CuSbS tetrahedrite. *Physical Chemistry Chemical Physics*, **2017**, 19, 8874-8879	3.6	32
67	Atomic-scale phonon scatterers in thermoelectric colusites with a tetrahedral framework structure. *Journal of Materials Chemistry A*, **2019**, 7, 228-235	13	32
66	Thermoelectric Properties of Bi2Te3-Based Thin Films with Fine Grains Fabricated by Pulsed Laser Deposition. *Japanese Journal of Applied Physics*, **2009**, 48, 085506	1.4	29
65	Power Generation Evaluated on a Bismuth Telluride Unicouple Module. *Journal of Electronic Materials*, **2015**, 44, 1785-1790	1.9	28
64	Tuning the charge carrier density in the thermoelectric colusite. *Journal of Applied Physics*, **2016**, 119, 175105	2.5	26
63	Three-Dimensional Finite-Element Simulation for a Thermoelectric Generator Module. *Journal of Electronic Materials*, **2015**, 44, 3637-3645	1.9	24
62	Measurement and simulation of thermoelectric efficiency for single leg. *Review of Scientific Instruments*, **2015**, 86, 045103	1.7	24
61	Power generation from the Cu26Nb2Ge6S32-based single thermoelectric element with Au diffusion barrier. *Journal of Materials Chemistry C*, **2019**, 7, 5184-5192	7.1	22
60	Nanostructural and Microstructural Ordering and Thermoelectric Property Tuning in Misfit Layered Sulfide [(LaS)x]1.14NbS2. *Chemistry of Materials*, **2015**, 27, 7719-7728	9.6	21
59	An Integrated Approach to Thermoelectrics: Combining Phonon Dynamics, Nanoengineering, Novel Materials Development, Module Fabrication, and Metrology. *Advanced Energy Materials*, **2019**, 9, 1801304	21.8	20
58	Thermoelectric Properties and Electronic Structures of CuTiS Thiospinel and Its Derivatives: Structural Design for Spinel-Related Thermoelectric Materials. *Inorganic Chemistry*, **2019**, 58, 1425-1432	5.1	18
57	High power factor in thiospinels Cu2 TrTi3S8 (Tr= Mn, Fe, Co, Ni) arising from TiS6 octahedron network. *Applied Physics Letters*, **2016**, 109, 182110	3.4	17
56	Preparation and Thermoelectric Properties of LaGd1+x S3 and SmGd1+x S3. *Journal of Electronic Materials*, **2011**, 40, 537-542	1.9	16
55	Thermoelectric Properties of Chevrel-Phase Sulfides M x Mo6S8 (M: Cr, Mn, Fe, Ni). *Journal of Electronic Materials*, **2010**, 39, 2117-2121	1.9	16
54	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	5.7	15

53	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	5.7	15
52	Disorder-driven glasslike thermal conductivity in colusite Cu26V2Sn6S32 investigated by M□ssbauer spectroscopy and inelastic neutron scattering. *Physical Review Materials*, **2020**, 4,	3.2	15
51	Thermoelectric Properties of NdGd1+x S3 Prepared by CS2 Sulfurization. *Journal of Electronic Materials*, **2009**, 38, 1287-1292	1.9	14
50	Effect of non-stoichiometry on thermoelectric properties of -Tb2S3□. *Journal of Alloys and Compounds*, **2006**, 418, 209-212	5.7	14
49	Carrier concentration tuning in thermoelectric thiospinel Cu2CoTi3S8 by oxidative extraction of copper. *Journal of Solid State Chemistry*, **2018**, 259, 5-10	3.3	12
48	Sustainable thermoelectric materials fabricated by using Cu2Sn1-xZnxS3 nanoparticles as building blocks. *Applied Physics Letters*, **2017**, 111, 263105	3.4	12
47	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	5.7	12
46	Temperature-Dependent Structural Variation and Cu Substitution in Thermoelectric Silver Selenide. *ACS Applied Energy Materials*, **2020**, 3, 2160-2167	6.1	11
45	Addition of Co, Ni, Fe and their role in the thermoelectric properties of colusite Cu26Nb2Ge6S32. *Journal of Alloys and Compounds*, **2018**, 735, 1838-1845	5.7	11
44	Enhancement of the Thermoelectric Figure of Merit in Blended Cu2Sn1□ZnxS3 Nanobulk Materials. *ACS Applied Nano Materials*, **2018**, 1, 4819-4827	5.6	10
43	Effect of sulfur substitution on the thermoelectric properties of (SnSe)1.16NbSe2: charge transfer in a misfit layered structure. *RSC Advances*, **2016**, 6, 105653-105660	3.7	9
42	Localized relaxation in stabilized zirconia. *Physica B: Condensed Matter*, **2002**, 316-317, 427-429	2.8	9
41	Increased Seebeck Coefficient and Decreased Lattice Thermal Conductivity in Grain-Size-Controlled p-Type PbTe□MgTe System. *ACS Applied Energy Materials*, **2018**, 1, 6586-6592	6.1	8
40	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	9.6	7
39	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	5.7	6
38	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	1.3	6
37	Influence of dopant ion on localized relaxation of an oxygen vacancy in stabilized zirconia. *Physical Review B*, **2002**, 65,	3.3	6
36	Gram-Scale Synthesis of Tetrahedrite Nanoparticles and Their Thermoelectric Properties. *Langmuir*, **2019**, 35, 16335-16340	4	5

35	Internal Friction Due to Localized Relaxation around Y-ions in Single Crystal Yttria-Stabilized Zirconia. *Japanese Journal of Applied Physics*, **2001**, 40, 5377-5381	1.4	5
34	Nanobulk Thermoelectric Materials Fabricated from Chemically Synthesized CuZn Al SnS Nanocrystals. *ACS Omega*, **2019**, 4, 16402-16408	3.9	4
33	Thermoelectric Properties of Selenospinel Cu6Fe4Sn12Se32. *Journal of Electronic Materials*, **2012**, 41, 1130-1133	1.9	4
32	Colloid Chemical Approach for Fabricating Cu□FeS Nanobulk Thermoelectric Materials by Blending Cu2S and FeS Nanoparticles as Building Blocks. *Industrial & Engineering Chemistry Research*, **2019**, 58, 3688-3697	3.9	4
31	Enhancing the Thermoelectric Properties of Misfit Layered Sulfides (MS) (NbS) (M = Gd and Dy) through Structural Evolution and Compositional Tuning. *ACS Omega*, **2020**, 5, 13006-13013	3.9	3
30	Enhancement of the thermoelectric power factor by tuning the carrier concentration in Cu-rich and Ge-poor colusites Cu26+xNb2Ge6□S32. *Journal of Materials Chemistry C*, **2020**, 8, 6442-6449	7.1	3
29	Mechanically durable thermoelectric power generation module made of Ni-based alloy as a reference for reliable testing. *Applied Energy*, **2020**, 260, 114443	10.7	3
28	Preparation of Single-Phase Pb-Filled Chevrel-Phase Sulfide and Its Thermoelectric Properties. *Materials Transactions*, **2011**, 52, 1535-1538	1.3	3
27	Low-Temperature Formation of Cubic Th3P4-type Gadolinium and Holmium Sesquisulfides. *Journal of MMIJ*, **2010**, 126, 450-455	0.3	3
26	A prototype thermoelectric module based on p-type colusite together with n-type nanostructured PbTe for power generation. *Applied Physics Letters*, **2022**, 120, 013501	3.4	3
25	Effect of Gallium Substitution in Cu3Al1□GaxSnS5 Nanobulk Materials on Thermoelectric Properties. *ACS Applied Energy Materials*, **2020**, 3, 5784-5791	6.1	2
24	Morphology and the Thermoelectric Properties of □GdxDy1 □xS1.5 □y Solid Solution Ceramics. *Physics of the Solid State*, **2020**, 62, 611-620	0.8	2
23	Synthetic Copper-based Sulfide Minerals as Advanced Thermoelectric Materials and the Modularization for Power Generation. *Materia Japan*, **2015**, 54, 335-338	0.1	2
22	Thermoelectric Materials: Enhancement of Thermoelectric Figure of Merit by the Insertion of MgTe Nanostructures in p-type PbTe Doped with Na2Te (Adv. Energy Mater. 9/2012). *Advanced Energy Materials*, **2012**, 2, 1038-1038	21.8	2
21	Development of High Efficiency Thermoelectric Sulfides. *Materia Japan*, **2010**, 49, 477-481	0.1	2
20	Thermoelectric properties of lanthanum sesquisulfide with Ti additive. *Applied Physics Letters*, **2005**, 87, 042106	3.4	2
19	Synergistic Effect of Chemical Substitution and Insertion on the Thermoelectric Performance of CuVGeS Colusite. *Inorganic Chemistry*, **2021**, 60, 11364-11373	5.1	2
18	Realizing Excellent n- and p-Type Niobium-Based Half-Heusler Compounds Based on Thermoelectric Properties and High-Temperature Stability. *Advanced Electronic Materials*, **2020**, 6, 2000083	6.4	2

17	Fabrication and Evaluation of Low-Cost CrSi2 Thermoelectric Legs. *Crystals*, **2021**, 11, 1140	2.3	2
16	High performance thermoelectrics for power generation using earth-abundant and low toxicity elements. *Synthesiology*, **2017**, 10, 63-74	0.2	1
15	Thermoelectric Properties of Ternary Rare-Earth Copper Antimonides LaCuxSb2 (0.9≤x≤1.3). *Materials Transactions*, **2009**, 50, 1881-1884	1.3	1
14	Synthesis of La2S3 Thin Films by Sulfurization of LaCl3 and CS(NH2)2. *Materials Transactions*, **2006**, 47, 1436-1439	1.3	1
13	Thermoelectric properties of paracostibite fabricated using chemically synthesized CoSbS nanoparticles as building blocks. *AIP Advances*, **2020**, 10, 075021	1.5	1
12	Interlaboratory Testing for High-Temperature Power Generation Characteristics of a Ni-Based Alloy Thermoelectric Module. *Energy Technology*, **2020**, 8, 2000557	3.5	1
11	Synthetic minerals tetrahedrites and colusites for thermoelectric power generation **2021**, 197-216		1
10	A comparative study of thermoelectric Cu2TrTi3S8 (Tr = Co and Sc) thiospinels: Enhanced Seebeck coefficient via electronic structure modification. *Journal of Alloys and Compounds*, **2021**, 871, 159548	5.7	1
9	CuS-based thermoelectric compounds with a sphalerite-derived disordered crystal structure. *Journal of Solid State Chemistry*, **2022**, 309, 122960	3.3	0
8	High performance thermoelectrics for power generation using earth-abundant and low toxicity elements. *Synthesiology*, **2017**, 10, 62-74	0.1	
7	Thermoelectrics: An Integrated Approach to Thermoelectrics: Combining Phonon Dynamics, Nanoengineering, Novel Materials Development, Module Fabrication, and Metrology (Adv. Energy Mater. 23/2019). *Advanced Energy Materials*, **2019**, 9, 1970088	21.8	
6	Hierarchical Structures for High-Performance Chalcogenides: From Tellurides to Sulfides. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2015**, 79, 538-547	0.4	
5	Microstructure and Thermoelectric Properties of Al-Doped ZnO Sintered Body. *Materials Science Forum*, **2010**, 638-642, 2172-2177	0.4	
4	Pulsed Laser Deposition of Titanium Sulfide Films from TiS2 Target under CS2 Pressure and their Thermoelectric Properties. *Journal of MMIJ*, **2008**, 124, 648-652	0.3	
3	γ-Gd-=SUB=-x-=/SUB=-Dy-=SUB=-1-x-=/SUB=-S-=SUB=-1.5-y-=/SUB=-. *Physics of the Solid State*, **2020**, 62, 537	0	
2	DETECTION OF DUPULICATE INFORMATION IN A LARGE SOIL DRILLING LOG DATABASE. *Geoinformatics*, **2007**, 18, 55-59	0.1	
1	Materials development and module fabrication in highly efficient lead tellurides **2021**, 247-267		