

Soonil Lee

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8594854/publications.pdf>

Version: 2024-02-01

85
papers

1,856
citations

236925

25
h-index

302126

39
g-index

85
all docs

85
docs citations

85
times ranked

2036
citing authors

#	ARTICLE	IF	CITATIONS
1	Modified Phase Diagram for the Barium Oxide-Titanium Dioxide System for the Ferroelectric Barium Titanate. <i>Journal of the American Ceramic Society</i> , 2007, 90, 2589-2594.	3.8	108
2	Ferroelectric-thermoelectricity and Mott transition of ferroelectric oxides with high electronic conductivity. <i>Journal of the European Ceramic Society</i> , 2012, 32, 3971-3988.	5.7	95
3	$Sr_xBa_{1-x}Nb_2O_6$ Ferroelectric-thermoelectrics: Crystal anisotropy, conduction mechanism, and power factor. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	80
4	Influence of nonstoichiometry on ferroelectric phase transition in BaTiO ₃ . <i>Journal of Applied Physics</i> , 2007, 101, 054119.	2.5	77
5	Thermopower in highly reduced n-type ferroelectric and related perovskite oxides and the role of heterogeneous nonstoichiometry. <i>Physical Review B</i> , 2009, 79, .	3.2	68
6	Effect of local oxygen activity on Ni-BaTiO ₃ interfacial reactions. <i>Acta Materialia</i> , 2006, 54, 3513-3523.	7.9	63
7	Local structure of Ba(Ti,Zr)O ₃ perovskite-like solid solutions and its relation to the band-gap behavior. <i>Physical Review B</i> , 2011, 83, .	3.2	62
8	Oxygen vacancy revived phonon-glass electron-crystal in SrTiO ₃ . <i>Journal of the European Ceramic Society</i> , 2019, 39, 358-365.	5.7	59
9	Grain Boundary Interfaces Controlled by Reduced Graphene Oxide in Nonstoichiometric SrTiO ₃ - δ Thermoelectrics. <i>Scientific Reports</i> , 2019, 9, 8624.	3.3	50
10	Enhanced thermoelectric performance of reduced graphene oxide incorporated bismuth-antimony-telluride by lattice thermal conductivity reduction. <i>Journal of Alloys and Compounds</i> , 2017, 718, 342-348.	5.5	49
11	Thermoelectric power factor enhancement of textured ferroelectric Sr _{1-x} Ba _x Nb ₂ O ₆ ceramics. <i>Journal of Materials Research</i> , 2011, 26, 26-30.	2.6	48
12	Crystal and defect chemistry influences on band gap trends in alkaline earth perovskites. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	47
13	Band-gap nonlinearity in perovskite structured solid solutions. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	45
14	Influence of Nonstoichiometry on Extrinsic Electrical Conduction and Microwave Dielectric Loss of BaCo _{1/3} Nb _{2/3} O ₃ Ceramics. <i>Journal of the American Ceramic Society</i> , 2010, 93, 4087-4095.	3.8	44
15	A modified Vegard's law for multisite occupancy of Ca in BaTiO ₃ -CaTiO ₃ solid solutions. <i>Applied Physics Letters</i> , 2008, 92, 111904.	3.3	42
16	Less temperature-dependent high dielectric and energy-storage properties of eco-friendly BiFeO ₃ -BaTiO ₃ -based ceramics. <i>Journal of Alloys and Compounds</i> , 2020, 818, 152878.	5.5	42
17	High thermoelectric performance of melt-spun CuxBi _{0.5} Sb _{1.5} Te ₃ by synergetic effect of carrier tuning and phonon engineering. <i>Acta Materialia</i> , 2018, 158, 289-296.	7.9	37
18	Enhanced thermoelectric properties and their controllability in p-type (BiSb) ₂ Te ₃ compounds through simultaneous adjustment of charge and thermal transports by Cu incorporation. <i>Journal of Alloys and Compounds</i> , 2016, 687, 320-325.	5.5	35

#	ARTICLE	IF	CITATIONS
19	Kinetics of Oxygen Diffusion into Multilayer Ceramic Capacitors During the Reoxidation Process and its Implications on Dielectric Properties. <i>Journal of the American Ceramic Society</i> , 2011, 94, 3934-3940.	3.8	34
20	A gigantically increased ratio of electrical to thermal conductivity and synergistically enhanced thermoelectric properties in interface-controlled TiO ₂ -RGO nanocomposites. <i>Nanoscale</i> , 2017, 9, 7830-7838.	5.6	34
21	Resistance Degradation in Y(Cr,Mn)O ₃ -Y ₂ O ₃ Composite NTC Ceramics in Hostile Environments. <i>Journal of the American Ceramic Society</i> , 2009, 92, 2634-2641.	3.8	33
22	Intrinsic ferroelectric properties of the nonstoichiometric perovskite oxide Ba _{1-x} Ti _{1-y} O _{3-x/2y} . <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	29
23	Thermally-stable high dielectric properties of (1-x)(0.65Bi _{1.05} FeO ₃ -0.35BaTiO ₃)-xBiGaO ₃ piezoceramics. <i>Journal of the European Ceramic Society</i> , 2019, 39, 2304-2309.	5.7	29
24	Role of Bi chemical pressure on electrical properties of BiFeO ₃ -BaTiO ₃ -based ceramics. <i>Solid State Sciences</i> , 2021, 114, 106562.	3.2	29
25	Comprehensive Linkage of Defect and Phase Equilibria Through Ferroelectric Transition Behavior in BaTiO ₃ -Based Dielectrics: Part 2. Defect Modeling Under Low Oxygen Partial Pressure Conditions. <i>Journal of the American Ceramic Society</i> , 2008, 91, 1753-1761.	3.8	28
26	Power-Generation Characteristics After Vibration and Thermal Stresses of Thermoelectric Unicouples with CoSb ₃ /Ti/Mo(Cu) Interfaces. <i>Journal of Electronic Materials</i> , 2015, 44, 2124-2131.	2.2	26
27	Comprehensive Linkage of Defect and Phase Equilibria through Ferroelectric Transition Behavior in BaTiO ₃ -Based Dielectrics: Part 1. Defect Energies Under Ambient Air Conditions. <i>Journal of the American Ceramic Society</i> , 2008, 91, 1748-1752.	3.8	25
28	Enhancing piezoelectric coefficient with high Curie temperature in BiAlO ₃ -modified BiFeO ₃ -BaTiO ₃ lead-free ceramics. <i>Solid State Sciences</i> , 2019, 98, 106040.	3.2	22
29	Anisotropy of the thermoelectric figure of merit (ZT) in textured Ca ₃ Co ₄ O ₉ ceramics prepared by using a spark plasma sintering process. <i>Journal of the Korean Physical Society</i> , 2015, 66, 794-799.	0.7	21
30	Chemically synthesized Cu ₂ Te incorporated Bi-Sb-Te p-type thermoelectric materials for low temperature energy harvesting. <i>Scripta Materialia</i> , 2019, 165, 78-83.	5.2	19
31	Effect of heat-treatment mechanism on structural and electromechanical properties of eco-friendly (Bi, Ba)(Fe, Ti)O ₃ piezoceramics. <i>Journal of Materials Science</i> , 2021, 56, 13198-13214.	3.7	19
32	Effects of Cu incorporation as an acceptor on the thermoelectric transport properties of Cu Bi ₂ Te _{2.7} Se _{0.3} compounds. <i>Journal of Alloys and Compounds</i> , 2017, 696, 213-219.	5.5	18
33	Electromechanical properties of ternary BiFeO ₃ -0.35BaTiO ₃ -BiGaO ₃ piezoelectric ceramics. <i>Journal of Electroceramics</i> , 2018, 41, 93-98.	2.0	18
34	Nonstoichiometric Effects in the Leakage Current and Electrical Properties of Bismuth Ferrite Ceramics. <i>Journal of the Korean Ceramic Society</i> , 2017, 54, 323-330.	2.3	18
35	Effect of sintering temperature on the electrical properties of pristine BF-35BT piezoelectric ceramics. <i>Journal of the Korean Ceramic Society</i> , 2020, 57, 290-295.	2.3	16
36	Structural evolution and electromechanical properties of SrTiO ₃ -modified Bi _{0.5} Na _{0.5} TiO ₃ -BaTiO ₃ ceramics prepared by sol-gel and hydrothermal methods. <i>Materials Chemistry and Physics</i> , 2021, 266, 124529.	4.0	16

#	ARTICLE	IF	CITATIONS
37	Thermoelectric properties of La-filled CoSb ₃ skutterudites. Journal of the Korean Physical Society, 2014, 64, 1004-1008.	0.7	15
38	A critical evaluation of reactive templated grain growth (RTGG) mechanisms in highly [001] textured Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ ferroelectric-thermoelectrics. Journal of Materials Research, 2011, 26, 3044-3050.	2.6	14
39	Colligative thermoelectric transport properties in n-type filled CoSb ₃ determined by guest electrons in a host lattice. Journal of Applied Physics, 2016, 119, 115104.	2.5	14
40	Composition-dependent charge transport and temperature-dependent density of state effective mass interpreted by temperature-normalized Pisarenko plot in Bi _{2-x} Sb _x Te ₃ compounds. APL Materials, 2016, 4, 104812.	5.1	14
41	Effect of donor doping on the ferroelectric and the piezoelectric properties of lead-free 0.97(Bi _{0.5} Na _{0.5} Ti _{1-x} Nb _x)O ₃ -0.03BaZrO ₃ ceramics. Journal of the Korean Physical Society, 2015, 67, 1240-1245.	0.7	13
42	Synthesis and thermoelectric properties of Ti-substituted (Hf _{0.5} Zr _{0.5}) _{1-x} Ti _x NiSn _{0.998} Sb _{0.002} Half-Heusler compounds. Journal of Alloys and Compounds, 2019, 773, 1141-1145.	5.5	13
43	Factors Limiting Equilibrium in Fabricating a Simple Ferroelectric Oxide: BaTiO ₃ . Journal of the American Ceramic Society, 2009, 92, 222-228.	3.8	12
44	Electrical response of mixed phase (1-x)BiFeO ₃ -xPbTiO ₃ solid solution: Role of tetragonal phase and tetragonality. Journal of Alloys and Compounds, 2019, 786, 98-108.	5.5	12
45	Large electromechanical strain response in BiFeO ₃ ∕BaTiO ₃ -based ceramics at elevated temperature. Journal of Physics and Chemistry of Solids, 2021, 156, 110133.	4.0	12
46	Mn-doped 0.15BiInO ₃ -0.85PbTiO ₃ piezoelectric films deposited by pulsed laser deposition. Applied Physics Letters, 2012, 100, 212905.	3.3	11
47	Piezoelectric and ferroelectric properties of lead-free LiNbO ₃ -modified 0.97(Bi _{0.5} Na _{0.5} TiO ₃)-0.03BaZrO ₃ ceramics. Journal of the Korean Physical Society, 2015, 66, 661-666.	0.7	11
48	Piezoelectric and ferroelectric properties of lead-free Ga-modified 0.65BiFeO ₃ ∕0.35BaTiO ₃ ceramics by water quenching process. Ferroelectrics, 2019, 541, 54-60.	0.6	11
49	High and temperature-insensitive piezoelectric performance in the lead-free Sm-doped BiFeO ₃ ∕BaTiO ₃ ceramics with high Curie temperature. Ceramics International, 2022, 48, 26608-26617.	4.8	11
50	Thermal Stability of La _{0.9} Fe ₃ CoSb ₁₂ Skutterudite. Journal of Electronic Materials, 2015, 44, 1858-1863.	2.2	10
51	Localized double phonon scattering and DOS induced thermoelectric enhancement of degenerate nonstoichiometric Li _{1-x} NbO ₂ compounds. RSC Advances, 2017, 7, 53255-53264.	3.6	10
52	X-site aliovalent substitution decoupled charge and phonon transports in XYZ half-Heusler thermoelectrics. Acta Materialia, 2019, 166, 650-657.	7.9	10
53	Effects of B-Site Donor Modification on the Crystal Structure and the Electrical Properties of Lead-Free 0.65BiFeO ₃ -0.35BaTiO ₃ Ceramics. Journal of the Korean Physical Society, 2019, 75, 811-816.	0.7	10
54	Enhanced Electromechanical Properties of 0.65Bi _{1.05} FeO ₃ ∕0.35BaTiO ₃ Ceramics through Optimizing Sintering Conditions. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900970.	1.8	10

#	ARTICLE	IF	CITATIONS
55	Synthesis and thermoelectric properties of $Ce_{1-x}Fe_4Co_xSb_{12}$ skutterudites. Journal of the Korean Physical Society, 2014, 64, 84-88.	0.7	9
56	The Synthesis and Thermoelectric Properties of p-Type $Li_{1-x}NbO_2$ -Based Compounds. Journal of Electronic Materials, 2017, 46, 1740-1746.	2.2	9
57	Determination of electronic and ionic conductivity in mixed ionic conductors: HiTEC and in-situ impedance spectroscopy analysis of isovalent and aliovalent doped $BaTiO_3$. Solid State Ionics, 2013, 249-250, 86-92.	2.7	8
58	Metallic-like to nonmetallic transitions in a variety of heavily oxygen deficient ferroelectrics. Applied Physics Letters, 2015, 107, .	3.3	8
59	Thermoelectric Properties of $Bi_2Te_3-ySe_y$ Prepared by Mechanical Alloying and Hot Pressing. Journal of Electronic Materials, 2017, 46, 2623-2628.	2.2	8
60	Synthesis and Thermoelectric Properties of $Ce_{1-z}Pr_zFe_4Co_xSb_{12}$ Skutterudites. Journal of Electronic Materials, 2017, 46, 2634-2639.	2.2	8
61	Microstructure Analysis and Thermoelectric Properties of Melt-Spun Bi-Sb-Te Compounds. Crystals, 2017, 7, 180.	2.2	8
62	Property-processing relations in developing thermoelectric ceramics: $Na_{1-x}Co_2O_4$. Journal of Materials Science, 2011, 46, 2064-2070.	3.7	7
63	The SYNthesis of $R_zFe_4Co_xSb_{12}$ (R: Yb, La, Ce) skutterudites and their thermoelectric properties. Journal of the Korean Physical Society, 2014, 64, 863-867.	0.7	7
64	Effects of cooling rate on the electrical properties of Pb-free BF-BT ceramics. Ferroelectrics, 2019, 553, 76-82.	0.6	7
65	Enhanced Piezoelectric Properties of $(1-x)[0.675BiFeO_3\sim 0.325BaTiO_3]_xLiTaO_3$ Ternary System by Air-Quenching. Korean Journal of Materials Research, 2018, 28, 489-494.	0.2	7
66	Effects of doping on the positional uniformity of the thermoelectric properties of n-type $Bi_2Te_{2.7}Se_{0.3}$ polycrystalline bulks. Journal of the Korean Physical Society, 2016, 68, 17-21.	0.7	6
67	Enhanced thermoelectric properties of Hf-free half-Heusler compounds prepared via highly fast process. Journal of Alloys and Compounds, 2021, 886, 161293.	5.5	6
68	Lead-free high-temperature dielectrics with wide temperature stability range induced from $BiFeO_3$ - $BaTiO_3$ -based system. Journal of the European Ceramic Society, 2022, 42, 4040-4044.	5.7	6
69	Electrical Properties of $BaTiO_3$ -Based Multilayer Ceramic Capacitors Sintered with Plasma-Treated Glass Powder. Japanese Journal of Applied Physics, 2013, 52, 10MB23.	1.5	5
70	Thermoelectric and transport properties of mechanically-alloyed $Bi_2Te_{3-y}Se_y$ solid solutions. Journal of the Korean Physical Society, 2015, 67, 1809-1813.	0.7	5
71	Charge transport and thermoelectric properties of double-filled $Nd_{1-x}Yb_xFe_4Co_xSb_{12}$ skutterudites. Journal of the Korean Physical Society, 2016, 68, 875-882.	0.7	5
72	Charge Transport and Thermoelectric Properties of $(Nd_{1-z}Yb_z)_yFe_4Co_xSb_{12}$ Skutterudites. Journal of Electronic Materials, 2018, 47, 3143-3151.	2.2	5

#	ARTICLE	IF	CITATIONS
73	Piezoelectric performance of the binary $K_{1/2}Bi_{1/2}TiO_3$ - $LiTaO_3$ relaxor-ferroelectric ceramics. <i>Materials Chemistry and Physics</i> , 2022, 279, 125764.	4.0	5
74	Correlations among defect type, photoconductivity and photoreactivity of doped TiO_2 . <i>Korean Journal of Chemical Engineering</i> , 2001, 18, 873-878.	2.7	4
75	Thermoelectric Properties of n-Type Half-Heusler Compounds Synthesized by the Induction Melting Method. <i>Transactions on Electrical and Electronic Materials</i> , 2015, 16, 342-345.	1.9	4
76	Coral-like iron particles synthesized by morphology controllable reduction process. <i>Ceramics International</i> , 2018, 44, 5359-5364.	4.8	3
77	Correlations between shape/size/oxidation of iron particle and electromagnetic properties of Fe-silicone rubber composites. <i>Solid State Sciences</i> , 2020, 105, 106246.	3.2	3
78	Identification and comparison of peculiarities in physical properties of multiferroic morphotropic phase boundary sintered $BiFeO_3$ - $xPbTiO_3$ nano-ceramics. <i>Journal of Physics and Chemistry of Solids</i> , 2021, 150, 109868.	4.0	3
79	Electrical Conductivity Revisited in Excess BaO into $BaTiO_3$. <i>Journal of the Korean Ceramic Society</i> , 2005, 42, 308-313.	2.3	3
80	Milling precipitation method of powder synthesis for fabrication of dense submicron grained pzt and PZT derived ceramics. <i>Ferroelectrics</i> , 2001, 263, 321-326.	0.6	2
81	An Optimization of Composition Ratio among Triple-Filled Atoms in $In_{0.3-x}YBa_xCe_yCo_4Sb_{12}$ System. <i>Journal of Nanomaterials</i> , 2013, 2013, 1-7.	2.7	2
82	Combined effect of donor doping and RGO (reduced graphene oxide) coating in La/Nb-doped $SrTiO_3$ thermoelectrics. <i>Solid State Sciences</i> , 2021, 122, 106774.	3.2	2
83	Low temperature sintering and dielectric properties of $LaAlO_3$ - $BaSnO_3$ -based microwave dielectrics. <i>Advances in Applied Ceramics</i> , 2022, 121, 101-108.	1.1	2
84	Challenges in Improving Performance of Oxide Thermoelectrics Using Defect Engineering. , 0, , .		1
85	Phenomenological analysis for intrinsic properties of nonstoichiometric $BaTiO_3$. , 2008, , .		0