

# 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	Piezoelectric performance of the binary $K1/2Bi1/2TiO3 \hat{=} LiTaO3$ relaxor-ferroelectric ceramics. <i>Materials Chemistry and Physics</i> , 2022, 279, 125764.	4.0	5
2	Lead-free high-temperature dielectrics with wide temperature stability range induced from $BiFeO3$ - $BaTiO3$ -based system. <i>Journal of the European Ceramic Society</i> , 2022, 42, 4040-4044.	5.7	6
3	Low temperature sintering and dielectric properties of $LaAlO_3 \hat{=} BaSnO_3$ -based microwave dielectrics. <i>Advances in Applied Ceramics</i> , 2022, 121, 101-108.	1.1	2
4	High and temperature-insensitive piezoelectric performance in the lead-free Sm-doped $BiFeO3 \hat{=} BaTiO3$ ceramics with high Curie temperature. <i>Ceramics International</i> , 2022, 48, 26608-26617.	4.8	11
5	Identification and comparison of peculiarities in physical properties of multiferroic morphotropic phase boundary sintered $BiFeO3$ - $xPbTiO3$ nano-ceramics. <i>Journal of Physics and Chemistry of Solids</i> , 2021, 150, 109868.	4.0	3
6	Role of Bi chemical pressure on electrical properties of $BiFeO3 \hat{=} BaTiO3$ -based ceramics. <i>Solid State Sciences</i> , 2021, 114, 106562.	3.2	29
7	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
8	Structural evolution and electromechanical properties of $SrTiO3$ -modified $Bi0.5Na0.5TiO3 \hat{=} BaTiO3$ ceramics prepared by sol-gel and hydrothermal methods. <i>Materials Chemistry and Physics</i> , 2021, 266, 124529.	4.0	16
9	Large electromechanical strain response in $BiFeO3 \hat{=} BaTiO3$ -based ceramics at elevated temperature. <i>Journal of Physics and Chemistry of Solids</i> , 2021, 156, 110133.	4.0	12
10	Enhanced thermoelectric properties of Hf-free half-Heusler compounds prepared via highly fast process. <i>Journal of Alloys and Compounds</i> , 2021, 886, 161293.	5.5	6
11	Combined effect of donor doping and RGO (reduced graphene oxide) coating in La/Nb-doped $SrTiO3$ thermoelectrics. <i>Solid State Sciences</i> , 2021, 122, 106774.	3.2	2
12	Less temperature-dependent high dielectric and energy-storage properties of eco-friendly $BiFeO3 \hat{=} BaTiO3$ -based ceramics. <i>Journal of Alloys and Compounds</i> , 2020, 818, 152878.	5.5	42
13	Enhanced Electromechanical Properties of $0.65Bi_{1.05}FeO_3 \hat{=} 0.35BaTiO_3$ Ceramics through Optimizing Sintering Conditions. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 1900970.	1.8	10
14	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
15	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
16	Piezoelectric and ferroelectric properties of lead-free Ga-modified $0.65BiFeO_3 \hat{=} 0.35BaTiO_3$ ceramics by water quenching process. <i>Ferroelectrics</i> , 2019, 541, 54-60.	0.6	11
17	Grain Boundary Interfaces Controlled by Reduced Graphene Oxide in Nonstoichiometric $SrTiO_3$ - $\delta$ Thermoelectrics. <i>Scientific Reports</i> , 2019, 9, 8624.	3.3	50
18	Enhancing piezoelectric coefficient with high Curie temperature in $BiAlO_3$ -modified $BiFeO_3 \hat{=} BaTiO_3$ lead-free ceramics. <i>Solid State Sciences</i> , 2019, 98, 106040.	3.2	22

#	ARTICLE	IF	CITATIONS
19	Electrical response of mixed phase $(1-x)\text{BiFeO}_3\text{-}x\text{PbTiO}_3$ solid solution: Role of tetragonal phase and tetragonality. <i>Journal of Alloys and Compounds</i> , 2019, 786, 98-108.	5.5	12
20	X-site aliovalent substitution decoupled charge and phonon transports in XYZ half-Heusler thermoelectrics. <i>Acta Materialia</i> , 2019, 166, 650-657.	7.9	10
21	Thermally-stable high dielectric properties of $(1-x)(0.65\text{Bi}1.05\text{FeO}_3\text{-}0.35\text{BaTiO}_3)\text{-}x\text{BiGaO}_3$ piezoceramics. <i>Journal of the European Ceramic Society</i> , 2019, 39, 2304-2309.	5.7	29
22	Chemically synthesized $\text{Cu}_2\text{Te}$ incorporated Bi-Sb-Te p-type thermoelectric materials for low temperature energy harvesting. <i>Scripta Materialia</i> , 2019, 165, 78-83.	5.2	19
23	Effects of cooling rate on the electrical properties of Pb-free BF-BT ceramics. <i>Ferroelectrics</i> , 2019, 553, 76-82.	0.6	7
24	Effects of B-Site Donor Modification on the Crystal Structure and the Electrical Properties of Lead-Free $0.65\text{BiFeO}_3\text{-}0.35\text{BaTiO}_3$ Ceramics. <i>Journal of the Korean Physical Society</i> , 2019, 75, 811-816.	0.7	10
25	Oxygen vacancy revived phonon-glass electron-crystal in $\text{SrTiO}_3$ . <i>Journal of the European Ceramic Society</i> , 2019, 39, 358-365.	5.7	59
26	Synthesis and thermoelectric properties of Ti-substituted $(\text{Hf}_{0.5}\text{Zr}_{0.5})_{1-x}\text{Ti}_x\text{NiSn}_{0.998}\text{Sb}_{0.002}$ Half-Heusler compounds. <i>Journal of Alloys and Compounds</i> , 2019, 773, 1141-1145.	5.5	13
27	Coral-like iron particles synthesized by morphology controllable reduction process. <i>Ceramics International</i> , 2018, 44, 5359-5364.	4.8	3
28	Charge Transport and Thermoelectric Properties of $(\text{Nd}_{1-z}\text{Yb}_z)_y\text{Fe}_{4-x}\text{Co}_x\text{Sb}_{12}$ Skutterudites. <i>Journal of Electronic Materials</i> , 2018, 47, 3143-3151.	2.2	5
29	Electromechanical properties of ternary $\text{BiFeO}_3\text{-}0.35\text{BaTiO}_3\text{-}\text{BiGaO}_3$ piezoelectric ceramics. <i>Journal of Electroceramics</i> , 2018, 41, 93-98.	2.0	18
30	High thermoelectric performance of melt-spun $\text{Cu}_x\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$ by synergetic effect of carrier tuning and phonon engineering. <i>Acta Materialia</i> , 2018, 158, 289-296.	7.9	37
31	Enhanced Piezoelectric Properties of $(1-x)[0.675\text{BiFeO}_3\text{-}0.325\text{BaTiO}_3]\text{-}x\text{LiTaO}_3$ Ternary System by Air-Quenching. <i>Korean Journal of Materials Research</i> , 2018, 28, 489-494.	0.2	7
32	Thermoelectric Properties of $\text{Bi}_2\text{Te}_3\text{-}y\text{Se}_y$ Prepared by Mechanical Alloying and Hot Pressing. <i>Journal of Electronic Materials</i> , 2017, 46, 2623-2628.	2.2	8
33	A gigantically increased ratio of electrical to thermal conductivity and synergistically enhanced thermoelectric properties in interface-controlled $\text{TiO}_2\text{-}\text{RGO}$ nanocomposites. <i>Nanoscale</i> , 2017, 9, 7830-7838.	5.6	34
34	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
35	The Synthesis and Thermoelectric Properties of p-Type $\text{Li}_{1-x}\text{NbO}_2$ -Based Compounds. <i>Journal of Electronic Materials</i> , 2017, 46, 1740-1746.	2.2	9
36	Localized double phonon scattering and DOS induced thermoelectric enhancement of degenerate nonstoichiometric $\text{Li}_{1-x}\text{NbO}_2$ compounds. <i>RSC Advances</i> , 2017, 7, 53255-53264.	3.6	10

#	ARTICLE	IF	CITATIONS
37	Synthesis and Thermoelectric Properties of $Ce_{1-x}Pr_xFe_{4-x}Co_xSb_{12}$ Skutterudites. Journal of Electronic Materials, 2017, 46, 2634-2639.	2.2	8
38	Effects of Cu incorporation as an acceptor on the thermoelectric transport properties of $Bi_2Te_{2.7}Se_{0.3}$ compounds. Journal of Alloys and Compounds, 2017, 696, 213-219.	5.5	18
39	Microstructure Analysis and Thermoelectric Properties of Melt-Spun Bi-Sb-Te Compounds. Crystals, 2017, 7, 180.	2.2	8
40	Nonstoichiometric Effects in the Leakage Current and Electrical Properties of Bismuth Ferrite Ceramics. Journal of the Korean Ceramic Society, 2017, 54, 323-330.	2.3	18
41	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
42	Composition-dependent charge transport and temperature-dependent density of state effective mass interpreted by temperature-normalized Pisarenko plot in $Bi_{2-x}Sb_xTe_3$ compounds. APL Materials, 2016, 4, 104812.	5.1	14
43	Charge transport and thermoelectric properties of double-filled $Nd_{1-x}Yb_xFe_{4-x}Co_xSb_{12}$ skutterudites. Journal of the Korean Physical Society, 2016, 68, 875-882.	0.7	5
44	Enhanced thermoelectric properties and their controllability in p-type $(BiSb)_2Te_3$ compounds through simultaneous adjustment of charge and thermal transports by Cu incorporation. Journal of Alloys and Compounds, 2016, 687, 320-325.	5.5	35
45	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
46	Metallic-like to nonmetallic transitions in a variety of heavily oxygen deficient ferroelectrics. Applied Physics Letters, 2015, 107, .	3.3	8
47	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
48	Thermal Stability of $La_{0.9}Fe_3CoSb_{12}$ Skutterudite. Journal of Electronic Materials, 2015, 44, 1858-1863.	2.2	10
49	Power-Generation Characteristics After Vibration and Thermal Stresses of Thermoelectric Unicouples with $CoSb_3/Ti/Mo(Cu)$ Interfaces. Journal of Electronic Materials, 2015, 44, 2124-2131.	2.2	26
50	Anisotropy of the thermoelectric figure of merit (ZT) in textured $Ca_3Co_4O_9$ ceramics prepared by using a spark plasma sintering process. Journal of the Korean Physical Society, 2015, 66, 794-799.	0.7	21
51	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
52	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
53	Thermoelectric Properties of n-Type Half-Heusler Compounds Synthesized by the Induction Melting Method. Transactions on Electrical and Electronic Materials, 2015, 16, 342-345.	1.9	4
54	Synthesis and thermoelectric properties of $Ce_zFe_{4-x}Co_xSb_{12}$ skutterudites. Journal of the Korean Physical Society, 2014, 64, 84-88.	0.7	9

#	ARTICLE	IF	CITATIONS
55	Thermoelectric properties of La-filled CoSb <sub>3</sub> skutterudites. Journal of the Korean Physical Society, 2014, 64, 1004-1008.	0.7	15
56	The Synthesis of R <sub>z</sub> Fe <sub>4</sub> <sup>z</sup> x Co <sub>x</sub> Sb <sub>12</sub> (R: Yb, La, Ce) skutterudites and their thermoelectric properties. Journal of the Korean Physical Society, 2014, 64, 863-867.	0.7	7
57	Determination of electronic and ionic conductivity in mixed ionic conductors: HiTEC and in-situ impedance spectroscopy analysis of isovalent and aliovalent doped BaTiO <sub>3</sub> . Solid State Ionics, 2013, 249-250, 86-92.	2.7	8
58	An Optimization of Composition Ratio among Triple-Filled Atoms in In <sub>0.3-x</sub> YBa <sub>x</sub> Ce <sub>y</sub> Co <sub>4</sub> Sb <sub>12</sub> System. Journal of Nanomaterials, 2013, 2013, 1-7.	2.7	2
59	Electrical Properties of BaTiO <sub>3</sub> -Based Multilayer Ceramic Capacitors Sintered with Plasma-Treated Glass Powder. Japanese Journal of Applied Physics, 2013, 52, 10MB23.	1.5	5
60	Mn-doped 0.15BiInO <sub>3</sub> -0.85PbTiO <sub>3</sub> piezoelectric films deposited by pulsed laser deposition. Applied Physics Letters, 2012, 100, 212905.	3.3	11
61	Ferroelectric-thermoelectricity and Mott transition of ferroelectric oxides with high electronic conductivity. Journal of the European Ceramic Society, 2012, 32, 3971-3988.	5.7	95
62	Kinetics of Oxygen Diffusion into Multilayer Ceramic Capacitors During the Re-oxidation Process and its Implications on Dielectric Properties. Journal of the American Ceramic Society, 2011, 94, 3934-3940.	3.8	34
63	Local structure of Ba(Ti,Zr)O <sub>3</sub> perovskite-like solid solutions and its relation to the band-gap behavior. Physical Review B, 2011, 83, .	3.2	62
64	Property-processing relations in developing thermoelectric ceramics: Na <sub>1-x</sub> Co <sub>2</sub> O <sub>4</sub> . Journal of Materials Science, 2011, 46, 2064-2070.	3.7	7
65	Thermoelectric power factor enhancement of textured ferroelectric Sr <sub>x</sub> Ba <sub>1-x</sub> Nb <sub>2</sub> O <sub>6</sub> ceramics. Journal of Materials Research, 2011, 26, 26-30.	2.6	48
66	A critical evaluation of reactive templated grain growth (RTGG) mechanisms in highly [001] textured Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> ferroelectric-thermoelectrics. Journal of Materials Research, 2011, 26, 3044-3050.	2.6	14
67	Influence of Nonstoichiometry on Extrinsic Electrical Conduction and Microwave Dielectric Loss of BaCo <sub>1/3</sub> Nb <sub>2/3</sub> O <sub>3</sub> Ceramics. Journal of the American Ceramic Society, 2010, 93, 4087-4095.	3.8	44
68	Sr <sub>x</sub> Ba <sub>1-x</sub> Nb <sub>2</sub> O <sub>6</sub> Ferroelectric-thermoelectrics: Crystal anisotropy, conduction mechanism, and power factor. Applied Physics Letters, 2010, 96, .	3.3	80
69	Band-gap nonlinearity in perovskite structured solid solutions. Journal of Applied Physics, 2010, 107, .	2.5	45
70	Intrinsic ferroelectric properties of the nonstoichiometric perovskite oxide Ba <sub>1-x</sub> Ti <sub>1-x</sub> Y <sub>2x</sub> O <sub>3</sub> . Journal of Applied Physics, 2009, 105, .	2.5	29
71	Factors Limiting Equilibrium in Fabricating a Simple Ferroelectric Oxide: BaTiO <sub>3</sub> . Journal of the American Ceramic Society, 2009, 92, 222-228.	3.8	12
72	Resistance Degradation in Y(Cr,Mn)O <sub>3</sub> -Y <sub>2</sub> O <sub>3</sub> Composite NTC Ceramics in Hostile Environments. Journal of the American Ceramic Society, 2009, 92, 2634-2641.	3.8	33

#	ARTICLE	IF	CITATIONS
73	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
74	Comprehensive Linkage of Defect and Phase Equilibria through Ferroelectric Transition Behavior in BaTiO <sub>3</sub> -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
75	Comprehensive Linkage of Defect and Phase Equilibria Through Ferroelectric Transition Behavior in BaTiO <sub>3</sub> -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
76	A modified Vegard's law for multisite occupancy of Ca in BaTiO <sub>3</sub> -CaTiO <sub>3</sub> solid solutions. <i>Applied Physics Letters</i> , 2008, 92, 111904.	3.3	42
77	Phenomenological analysis for intrinsic properties of nonstoichiometric BaTiO <sub>3</sub> . , 2008, , .		0
78	Crystal and defect chemistry influences on band gap trends in alkaline earth perovskites. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	47
79	Influence of nonstoichiometry on ferroelectric phase transition in BaTiO <sub>3</sub> . <i>Journal of Applied Physics</i> , 2007, 101, 054119.	2.5	77
80	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
81	Effect of local oxygen activity on Ni-BaTiO <sub>3</sub> interfacial reactions. <i>Acta Materialia</i> , 2006, 54, 3513-3523.	7.9	63
82	Electrical Conductivity Revisited in Excess BaO into BaTiO <sub>3</sub> . <i>Journal of the Korean Ceramic Society</i> , 2005, 42, 308-313.	2.3	3
83	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
84	Correlations among defect type, photoconductivity and photoreactivity of doped TiO <sub>2</sub> . <i>Korean Journal of Chemical Engineering</i> , 2001, 18, 873-878.	2.7	4
85	Challenges in Improving Performance of Oxide Thermoelectrics Using Defect Engineering. , 0, , .		1