Shi-Kuan Sun

List of Publications by Year
in descending order

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117 papers	4,143 citations	126907 33 h-index	128289 60 g-index
118 all docs	118 docs citations	118 times ranked	2817 citing authors

#	Article	IF	Citations
1	Preparation and electrical properties of graphene nanosheet/Al2O3 composites. Carbon, 2010, 48, 1743-1749.	10.3	315
2	High Energy Storage Density and Large Strain in Bi(Zn_{2/3}Nb_{1/3})O₃-Doped BiFeO₃â€“BaTiO₃ Ceramics. ACS Applied Energy Materials, 2018, 1, 4403-4412.	5.1	229
3	Mechanism of enhanced energy storage density in AgNbO3-based lead-free antiferroelectrics. Nano Energy, 2021, 79, 105423.	16.0	180
4	Dense high-entropy boride ceramics with ultra-high hardness. Scripta Materialia, 2019, 164, 135-139.	5.2	177
5	BiFeO₃-BaTiO₃: A new generation of lead-free electroceramics. Journal of Advanced Dielectrics, 2018, 08, 1830004.	2.4	166
6	Ultrahigh energy density in short-range tilted NBT-based lead-free multilayer ceramic capacitors by nanodomain percolation. Energy Storage Materials, 2021, 38, 113-120.	18.0	139
7	Structure-property relationships in manganese oxide - mesoporous silica nanoparticles used for T1-weighted MRI and simultaneous anti-cancer drug delivery. Biomaterials, 2012, 33, 2388-2398.	11.4	135
8	Novel BaTiO₃-Based, Ag/Pd-Compatible Lead-Free Relaxors with Superior Energy Storage Performance. ACS Applied Materials & Interfaces, 2020, 12, 43942-43949.	8.0	130
9	Microstructure and mechanical properties of high-entropy borides derived from boro/carbothermal reduction. Journal of the European Ceramic Society, 2019, 39, 3920-3924.	5.7	127
10	Fatigue resistant lead-free multilayer ceramic capacitors with ultrahigh energy density. Journal of Materials Chemistry A, 2020, 8, 11414-11423.	10.3	114
11	Perspectives on Working Voltage of Aqueous Supercapacitors. Small, 2022, 18, e2106360.	10.0	93
12	Chemical Reactions, Anisotropic Grain Growth and Sintering Mechanisms of Self-Reinforced ZrB2-SiC Doped with WC. Journal of the American Ceramic Society, 2011, 94, 1575-1583.	3.8	91
13	Dense and pure high-entropy metal diboride ceramics sintered from self-synthesized powders via boro/carbothermal reduction approach. Science China Materials, 2019, 62, 1898-1909.	6.3	89
14	Lead-free (Ba,Sr)TiO3 â€“ BiFeO3 based multilayer ceramic capacitors with high energy density. Journal of the European Ceramic Society, 2020, 40, 1779-1783.	5.7	79
15	Low permittivity cordierite-based microwave dielectric ceramics for 5G/6G telecommunications. Journal of the European Ceramic Society, 2022, 42, 2820-2826.	5.7	76
16	Dielectric temperature stability and energy storage performance of NBTâ€based ceramics by introducing highâ€entropy oxide. Journal of the American Ceramic Society, 2022, 105, 4796-4804.	3.8	73
17	Ultra-low temperature co-fired ceramics with adjustable microwave dielectric properties in the Na₂Oâ€“Bi₂O₃â€“MoO₃ ternary system: a comprehensive study. Journal of Materials Chemistry C, 2022, 10, 2008-2016.	5.5	65
18	Ferroelectric Response Induced in cis-Type Anion Ordered SrTaO₂N Oxynitride Perovskite. Chemistry of Materials, 2016, 28, 1312-1317.	6.7	61

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19	Temperature stable Sm(Nb_{1â”x}V_x)O₄ (0.0 â‰¤ x â‰¤ 0.9) microwave dielectric ceramics with ultra-low dielectric loss for dielectric resonator antenna applications. Journal of Materials Chemistry C, 2021, 9, 9962-9971.	5.5	60
20	Reactive spark plasma sintering of ZrC and HfC ceramics with fine microstructures. Scripta Materialia, 2013, 69, 139-142.	5.2	59
21	High-entropy A2B2O7-type oxide ceramics: A potential immobilising matrix for high-level radioactive waste. Journal of Hazardous Materials, 2021, 415, 125596.	12.4	59
22	Direct Integration of Cold Sintered, Temperature-Stable Bi2Mo2O9-K2MoO4 Ceramics on Printed Circuit Boards for Satellite Navigation Antennas. Journal of the European Ceramic Society, 2020, 40, 4029-4034.	5.7	52
23	Optimal preparation of high-entropy boride-silicon carbide ceramics. Journal of Advanced Ceramics, 2021, 10, 173-180.	17.4	52
24	Design of a Sub-6 GHz Dielectric Resonator Antenna with Novel Temperature-Stabilized (Sm_{1â€“x}Bi_x)NbO₄ (x = 0â€“0.15) Microwave Dielectric Ceramics. ACS Applied Materials & Interfaces, 2022, 14, 7030-7038.	8.0	52
25	Remarkably enhanced photocatalytic performance of Au/AgNbO3 heterostructures by coupling piezotronic with plasmonic effects. Nano Energy, 2022, 95, 107031.	16.0	51
26	Improved densification and hardness of high-entropy diboride ceramics from fine powders synthesized via borothermal reduction process. Ceramics International, 2020, 46, 14299-14303.	4.8	49
27	ZrO2 removing reactions of Groups IVâ€“VI transition metal carbides in ZrB2 based composites. Journal of the European Ceramic Society, 2011, 31, 421-427.	5.7	45
28	Additive Sintering, Postannealing, and Dielectric Properties of <scp><scp>SrTaO</scp></scp>₂<scp><scp>N</scp></scp>. Journal of the American Ceramic Society, 2014, 97, 1023-1027.	3.8	45
29	Cold sintered LiMgPO₄ based composites for low temperature coâ€fired ceramic (LTCC) applications. Journal of the American Ceramic Society, 2020, 103, 6237-6244.	3.8	45
30	Processing of dielectric oxynitride perovskites for powders, ceramics, compacts and thin films. Dalton Transactions, 2015, 44, 10570-10581.	3.3	42
31	Highâ€Temperature Flexible Nanocomposites with Ultraâ€High Energy Storage Density by Nanostructured MgO Fillers. Advanced Functional Materials, 2022, 32, .	14.9	41
32	Fabrication of textured (Hf0.2Zr0.2Ta0.2Cr0.2Ti0.2)B2 high-entropy ceramics. Journal of the European Ceramic Society, 2021, 41, 1015-1019.	5.7	40
33	5G microstrip patch antenna and microwave dielectric properties of cold sintered LiWVO6â€“K2MoO4 composite ceramics. Ceramics International, 2021, 47, 19241-19246.	4.8	37
34	High QÃ—f values of Zn-Ni co-modified LiMg0.9Zn0.1-Ni PO4 microwave dielectric ceramics for 5G/6G LTCC modules. Journal of the European Ceramic Society, 2022, 42, 5684-5690.	5.7	34
35	Properties and microstructure of basic magnesium sulfate cement: Influence of silica fume. Construction and Building Materials, 2021, 266, 121076.	7.2	33
36	Microwave dielectric properties of Mg1.8R0.2Al4Si5O18 (R = Mg, Ca, Sr, Ba, Mn, Co, Ni, Cu, Zn) cordierite ceramics and their application for 5G microstrip patch antenna. Journal of the European Ceramic Society, 2022, 42, 2254-2260.	5.7	33

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37	Highly Improved Microwave Absorbing and Mechanical Properties in Cold Sintered ZnO by Incorporating Graphene Oxide. Journal of the European Ceramic Society, 2022, 42, 993-1000.	5.7	31
38	Synthesis and characterisation of Ca1-xCexZrTi2-2xCr2xO7: Analogue zirconolite wasteform for the immobilisation of stockpiled UK plutonium. Journal of the European Ceramic Society, 2020, 40, 5909-5919.	5.7	29
39	Characterization of and Structural Insight into Struvite-K, MgKPO₄Â·6H₂O, an Analogue of Struvite. Inorganic Chemistry, 2021, 60, 195-205.	4.0	29
40	Reactive spark plasma sintering of binderless WC ceramics at 1500Â°C. International Journal of Refractory Metals and Hard Materials, 2014, 43, 42-45.	3.8	27
41	Reactive spark plasma synthesis of CaZrTi2O7 zirconolite ceramics for plutonium disposition. Journal of Nuclear Materials, 2018, 500, 11-14.	2.7	27
42	A systematic investigation of the phase assemblage and microstructure of the zirconolite CaZr1-xCexTi2O7 system. Journal of Nuclear Materials, 2020, 535, 152137.	2.7	26
43	Additive sintering and post-ammonolysis of dielectric BaTaO2N oxynitride perovskite. Journal of the European Ceramic Society, 2016, 36, 3341-3345.	5.7	25
44	Review of zirconolite crystal chemistry and aqueous durability. Advances in Applied Ceramics, 2021, 120, 69-83.	1.1	25
45	New lowâ€Îµ_r, temperature stable Mg₃B₂O₆â€Ba₃(VO₄)₂ microwave composite ceramic for 5G application. Journal of the American Ceramic Society, 2021, 104, 3818-3822.	3.8	25
46	Synergy of nanodiamondâ€“doxorubicin conjugates and PD-L1 blockade effectively turns tumor-associated macrophages against tumor cells. Journal of Nanobiotechnology, 2021, 19, 268.	9.1	25
47	Nano-infiltration and transient eutectic (NITE) phase joining SiC ceramics at 1500oC. Ceramics International, 2019, 45, 24927-24931.	4.8	24
48	Texture, microstructures, and mechanical properties of AlNâ€based ceramics with Si₃N₄â€“Y₂O₃ additives. Journal of the American Ceramic Society, 2017, 100, 3380-3384.	3.8	23
49	Direct synthesis of SrTaO2N from SrCO3/Ta3N5 involving CO evolution. Journal of the European Ceramic Society, 2014, 34, 4451-4455.	5.7	22
50	Fabrication of Nanosized Tungsten Carbide Ceramics by Reactive Spark Plasma Sintering. Journal of the American Ceramic Society, 2011, 94, 3230-3233.	3.8	20
51	Reaction Sintering of <scp><scp>HfC</scp></scp>/<scp><scp>W</scp></scp> Cermets with High Strength and Toughness. Journal of the American Ceramic Society, 2013, 96, 867-872.	3.8	19
52	Structural evolution in ZrC-SiC composite irradiated by 4â€¯MeV Au ions. Nuclear Instruments & Methods in Physics Research B, 2018, 434, 23-28.	1.4	18
53	Synthesis of single-phase metal oxycarbonitride ceramics. Scripta Materialia, 2020, 176, 17-22.	5.2	18
54	Bottom-up synthesis of 2D layered high-entropy transition metal hydroxides. Nanoscale Advances, 2022, 4, 2468-2478.	4.6	17

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55	Continuous and symmetric graded Si3N4 ceramics designed by spark plasma sintering at 15â€¯MPa. Ceramics International, 2019, 45, 16703-16706.	4.8	16
56	Improvement of densification and microstructure of HfB₂ ceramics by Ta/Ti substitution for Hf. Journal of the American Ceramic Society, 2020, 103, 103-111.	3.8	16
57	High-Quality-Factor AlON Transparent Ceramics for 5 GHz Wi-Fi Aesthetically Decorative Antennas. ACS Applied Materials & Interfaces, 2021, 13, 46866-46874.	8.0	16
58	Direct synthesis of nearly single-phase BaTaO2N and CaTaO2N powders. Journal of the European Ceramic Society, 2015, 35, 3289-3294.	5.7	15
59	Reactive spark plasma sintering of Cs-exchanged chabazite: characterisation and durability assessment for Fukushima Daiichi NPP clean-up. Journal of Nuclear Science and Technology, 2019, 56, 891-901.	1.3	15
60	Pressureless joining of silicon carbide using Ti3SiC2 MAX phase at 1500oC. Ceramics International, 2020, 46, 14269-14272.	4.8	15
61	Sn4+ induced Bi3+ multi-lattice selective occupation and its color-tunable emission of La2MgZrO6: Bi3+, Sn4+ double perovskite phosphors. Journal of Alloys and Compounds, 2022, 902, 163724.	5.5	15
62	Synthesis mechanism and sintering behavior of tungsten carbide powder produced by a novel solid state reaction of W2N. International Journal of Refractory Metals and Hard Materials, 2012, 35, 202-206.	3.8	13
63	Particle refinement of ZrB₂ by the combination of borothermal reduction and solid solution. Journal of the American Ceramic Society, 2017, 100, 524-528.	3.8	13
64	Effect of ZrB₂ content on phase assemblage and mechanical properties of Si₃N₄â€“ZrB₂ ceramics prepared at low temperature. Journal of the American Ceramic Society, 2018, 101, 4870-4875.	3.8	13
65	Selection principle of the synthetic route for fabrication of HfB₂ and HfB₂â€“SiC ceramics. Journal of the American Ceramic Society, 2019, 102, 6427-6432.	3.8	13
66	Crystal and Electronic Structures of A₂NaIO₆ Periodate Double Perovskites (A = Sr, Ca, Ba): Candidate Wasteforms for I-129 Immobilization. Inorganic Chemistry, 2020, 59, 18407-18419.	4.0	13
67	Powder synthesis, densification, microstructure and mechanical properties of Hf-based ternary boride ceramics. Journal of the European Ceramic Society, 2021, 41, 3922-3928.	5.7	13
68	A microexplosion method for the synthesis of graphene nanoribbons. Carbon, 2011, 49, 1439-1445.	10.3	12
69	High-temperature stability and densification of Ti-substituted ZrB2-based ceramics. Ceramics International, 2019, 45, 15749-15753.	4.8	12
70	Powder characteristics, sinterability, and mechanical properties of TiB₂ prepared by three reduction methods. Journal of the American Ceramic Society, 2019, 102, 4511-4519.	3.8	12
71	Synthesis, structure, and characterization of the thorium zirconolite CaZr_{1â€“x}Th_xTi₂O₇ system. Journal of the American Ceramic Society, 2021, 104, 2937-2951.	3.8	12
72	Lattice occupying sites and microwave dielectric properties of Mg2+â€“Si4+ co-doped MgxY3-xAl5-xSixO12 garnet typed ceramics. Journal of Materials Science: Materials in Electronics, 2022, 33, 2116-2124.	2.2	12

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73	Phase Evolution in the CaZrTi₂O₇â€“Dy₂Ti₂O₇ System: A Potential Host Phase for Minor Actinide Immobilization. Inorganic Chemistry, 2022, 61, 5744-5756.	4.0	12
74	Ultraâ€Fine Tungsten Carbide Powder Prepared by a Nitridationâ€“Carburization Method. Journal of the American Ceramic Society, 2010, 93, 3565-3568.	3.8	11
75	Pressureless joining of SiC ceramics at low temperature. Ceramics International, 2019, 45, 6556-6559.	4.8	11
76	Effects of the joining process on the microstructure and properties of liquid-phase-sintered SiC-SiC joints formed with Ti foil. Journal of the European Ceramic Society, 2021, 41, 225-232.	5.7	11
77	Crystal structure and microwave dielectric properties of Mg2+-Si4+ co-modified yttrium aluminum garnet ceramics. Journal of Materials Science: Materials in Electronics, 2022, 33, 4712-4720.	2.2	11
78	Graded Si3N4 ceramics with hard surface and tough core by two-step hot pressing. Ceramics International, 2017, 43, 7948-7950.	4.8	10
79	Lowâ€temperature joining of SiC ceramics using NITE phase with Al 2 O 3 â€Ho 2 O 3 additive. Journal of the American Ceramic Society, 2020, 103, 731-736.	3.8	10
80	Conjugation with nanodiamonds via hydrazone bond fundamentally alters intracellular distribution and activity of doxorubicin. International Journal of Pharmaceutics, 2021, 606, 120872.	5.2	10
81	Preparation and oxidation behaviour of SiC-based ceramics with TaB2 addition. Ceramics International, 2019, 45, 23836-23840.	4.8	9
82	A new approach to the immobilisation of technetium and transuranics: Co-disposal in a zirconolite ceramic matrix. Journal of Nuclear Materials, 2020, 528, 151885.	2.7	9
83	Efficient toluene adsorption/desorption on biochar derived from in situ acid-treated sugarcane bagasse. Environmental Science and Pollution Research, 2021, 28, 62616-62627.	5.3	9
84	Lattices selective occupation, optical spectra regulation, and photoluminescence properties of Eu2+ activated Ca9La(PO4)7 phosphor. Journal of Luminescence, 2021, 237, 118197.	3.1	9
85	Nanoplates forced alignment of multi-walled carbon nanotubes in alumina composite with high strength and toughness. Journal of the European Ceramic Society, 2021, 41, 5541-5547.	5.7	9
86	Synthesis of perovskite BaTaO2N and SrNbO2N using TaN/NbN as the nitrogen source. Ceramics International, 2018, 44, 23324-23328.	4.8	8
87	Safely probing the chemistry of Chernobyl nuclear fuel using micro-focus X-ray analysis. Journal of Materials Chemistry A, 2021, 9, 12612-12622.	10.3	8
88	Influence of accessory phases and surrogate type on accelerated leaching of zirconolite wasteforms. Npj Materials Degradation, 2021, 5, .	5.8	8
89	Influence of TiB2 and CrB2 on densification, microstructure, and mechanical properties of ZrB2 ceramics. Ceramics International, 2021, 47, 28008-28013.	4.8	8
90	Synthesis of Ca1-xCexZrTi2-2xAl2xO7 zirconolite ceramics for plutonium disposition. Journal of Nuclear Materials, 2021, 556, 153198.	2.7	8

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91	Significantly reduced conductivity in strontium titanate-based lead-free ceramics by excess bismuth. Materials Letters, 2022, 309, 131453.	2.6	8
92	Synthesis and characterisation of Ce-doped zirconolite Ca0.80Ce0.20ZrTi1.60M0.40O7 (Mâ€‰=â€‰Fe, Al) formed by reactive spark plasma sintering (RSPS). MRS Advances, 2022, 7, 75-80.	0.9	8
93	Lead-free borosilicate glass/fused quartz composites for LTCC applications. Journal of Materials Science: Materials in Electronics, 2022, 33, 15033-15038.	2.2	8
94	Direct synthesis of nearly single phase SrTaO2N from SrCO3/TaN. Ceramics International, 2018, 44, 4504-4507.	4.8	7
95	Improvement of sinterability and mechanical properties of ZrB2 ceramics by the modified borothermal reduction methods. Journal of the European Ceramic Society, 2020, 40, 3844-3850.	5.7	7
96	Dense and coreâ€rim structured B 4 Câ€TiB 2 ceramics with Moâ€Coâ€WC additive. Journal of the American Ceramic Society, 2021, 104, 2860-2867.	3.8	7
97	Engineering lithiophilic Ni-Al@LDH interlayers on a garnet-type electrolyte for solid-state lithium metal batteries. Chemical Communications, 2021, 57, 10214-10217.	4.1	7
98	Hardness and toughness improvement of SiCâ€based ceramics with the addition of (Hf_{0.2}Mo_{0.2}Ta_{0.2}Nb_{0.2}Ti_{0.2})B₂. Journal of the American Ceramic Society, 2022, 105, 1629-1634.	3.8	7
99	Rapid synthesis of zirconolite ceramic wasteform by microwave sintering for disposition of plutonium. Journal of Nuclear Materials, 2020, 539, 152332.	2.7	6
100	Low-temperature catalytic combustion of benzene over Zrâ€“Mn mixed oxides synthesized by redox-precipitation method. Journal of Materials Science, 2021, 56, 13540-13555.	3.7	6
101	Structure analysis of vitusite glassâ€“ceramic waste forms using extended X-ray absorption fine structures. Ceramics International, 2017, 43, 4687-4691.	4.8	5
102	Effect of CeO₂ and Al₂O₃ contents on Ceâ€ZrO₂/Al₂O₃ composites. Journal of the American Ceramic Society, 2018, 101, 2066-2073.	3.8	5
103	Temperature Stable, High-Quality Factor Li2TiO3-Li4NbO4F Microwave Dielectric Ceramics. Crystals, 2021, 11, 741.	2.2	5
104	Dense SiC ceramics prepared by using amorphous sintering additives. Ceramics International, 2022, 48, 16449-16454.	4.8	5
105	Effect of native carbon vacancies on evolution of defects in ZrC1- under He ion irradiation and annealing. Journal of Materials Science and Technology, 2022, 119, 87-97.	10.7	5
106	Preparation and luminescence properties of Eu2+-doped oxynitride feldspar SrAl2â^'Si2+O8â^'N. Journal of Alloys and Compounds, 2015, 618, 254-257.	5.5	4
107	On the existence of the compound â€œCe3NbO7+â€•prepared under air atmosphere. Journal of Rare Earths, 2021, 39, 596-599.	4.8	4
108	Core-Shell Structure and Dielectric Properties of Ba0.6Sr0.4TiO3@ Fe2O3 Ceramics Prepared by Co-Precipitation Method. Crystals, 2021, 11, 623.	2.2	4

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109	Chemical state mapping of simulant Chernobyl lava-like fuel containing material using micro-focused synchrotron X-ray spectroscopy. Journal of Synchrotron Radiation, 2021, 28, 1672-1683.	2.4	4
110	Synthesis and characterisation of HIP Ca0.80Ce0.20ZrTi1.60Cr0.40O7 zirconolite and observations of the ceramicâ€“canister interface. MRS Advances, 2021, 6, 112-118.	0.9	3
111	Low-Temperature Nitridation of Fe₃O₄ by Reaction with NaNH₂. Inorganic Chemistry, 2021, 60, 2553-2562.	4.0	3
112	Chemical characterisation of degraded nuclear fuel analogues simulating the Fukushima Daiichi nuclear accident. Npj Materials Degradation, 2022, 6, .	5.8	3
113	Microstructure evolution of MeB2 (Me=Zr, Ti) powders prepared by borothermal reduction during heat treatment at 1000Â°Câ€“1800Â°C. Ceramics International, 2019, 45, 23794-23797.	4.8	2
114	Low-temperature joining of silicon carbide via Al-air in situ reaction. Ceramics International, 2019, 45, 24932-24935.	4.8	1
115	Synthesis of zirconolite-2M ceramics for immobilisation of neptunium. Ceramics International, 2021, 47, 1047-1052.	4.8	1
116	Ceramic-based stabilization/solidification of radioactive waste. , 2022, , 449-468.		1
117	Temperature-dependent discharge performance of (Pb0.87Ba0.08Sr0.02La0.02) (Zr0.65Sn0.27Ti0.08) O3 antiferroelectric ceramics. Journal of Materials Science: Materials in Electronics, 2022, 33, 5468.	2.2	1