Jie Lian

List of Publications by Year in descending order

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		76326	40979
128	8,845	40	93
papers	citations	h-index	g-index
129	129	129	12801
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Cs3Bi2I9-hydroxyapatite composite waste forms for cesium and iodine immobilization. Journal of Advanced Ceramics, 2022, 11, 712-728.	17.4	13
2	Chemical durability and degradation mechanisms of CsPbI ₃ as a potential host phase for cesium and iodine sequestration. RSC Advances, 2022, 12, 12242-12252.	3.6	4
3	Long-term interactive corrosion between International Simple Glass and stainless steel. Npj Materials Degradation, 2022, 6, .	5.8	O
4	Oxidation kinetics of SPS-densified U3Si2 fuelsâ€"Microstructure impact. Journal of Applied Physics, 2022, 131, .	2.5	1
5	Large-Area Uniaxial-Oriented Growth of Free-Standing Thin Films at the Liquid–Air Interface with Millimeter-Sized Grains. ACS Nano, 2022, 16, 11802-11814.	14.6	1
6	Enhanced crevice corrosion of stainless steel 316 by degradation of Cr-containing hollandite crevice former. Corrosion Science, 2022, 205, 110462.	6.6	2
7	Immobilization of cesium and iodine into Cs3Bi2I9 perovskite-silica composites and core-shell waste forms with high waste loadings and chemical durability. Journal of Hazardous Materials, 2021, 401, 123279.	12.4	24
8	Multicomponent pyrochlore solid solutions with uranium incorporation – A new perspective of materials design for nuclear applications. Journal of the European Ceramic Society, 2021, 41, 2870-2882.	5.7	38
9	Microstructure Dictating Performance: Assembly of Graphene-Based Macroscopic Structures. Accounts of Materials Research, 2021, 2, 7-20.	11.7	7
10	Perovskite-Derived Cs ₂ SnCl ₆ â€"Silica Composites as Advanced Waste Forms for Chloride Salt Wastes. Environmental Science & Envir	10.0	3
11	A systematic study of lanthanide titanates (A2Ti2O7) chemical durability: corrosion mechanisms and control parameters. Corrosion Science, 2021, 185, 109394.	6.6	13
12	Recent Advances in Corrosion Science Applicable To Disposal of High-Level Nuclear Waste. Chemical Reviews, 2021, 121, 12327-12383.	47.7	52
13	Chemical durability and surface alteration of lanthanide zirconates (A2Zr2O7: A = La-Yb). Journal of the European Ceramic Society, 2021, 41, 6018-6028.	5.7	14
14	Kinetically Controlled Growth of Subâ€Millimeter 2D Cs ₂ SnI ₆ Nanosheets at the Liquid–Liquid Interface. Small, 2021, 17, e2006279.	10.0	14
15	Spark plasma sintering-densified vanadinite apatite-based chlorine waste forms with high thermal stability and chlorine confinement. Journal of Nuclear Materials, 2020, 528, 151857.	2.7	10
16	A high performance UV–visible dual-band photodetector based on an inorganic Cs ₂ Snl ₆ perovskite/ZnO heterojunction structure. Journal of Materials Chemistry C, 2020, 8, 1819-1825.	5 . 5	29
17	Reply to: How much does corrosion of nuclear waste matrices matter. Nature Materials, 2020, 19, 962-963.	27.5	7
18	Corrosion interactions between stainless steel and lead vanado-iodoapatite nuclear waste form part I. Npj Materials Degradation, 2020, 4, .	5.8	8

#	Article	IF	Citations
19	Corrosion interactions between stainless steel and lead vanado-iodoapatite nuclear waste form part II. Npj Materials Degradation, 2020, 4, .	5.8	7
20	Nanoscale TiO2 coating improves water stability of Cs2SnCl6. MRS Communications, 2020, 10, 687-694.	1.8	1
21	Degradation mechanism of lead-vanado-iodoapatite in NaCl solution. Corrosion Science, 2020, 172, 108720.	6.6	3
22	Ultrasensitive UV Photodetector Based on Interfacial Charge-Controlled Inorganic Perovskite–Polymer Hybrid Structure. ACS Applied Materials & Los (12, 43106-43114).	8.0	23
23	Self-accelerated corrosion of nuclear waste forms at material interfaces. Nature Materials, 2020, 19, 310-316.	27.5	61
24	Copper-Coated Reduced Graphene Oxide Fiber Mesh-Polymer Composite Films for Electromagnetic Interference Shielding. ACS Applied Nano Materials, 2020, 3, 5565-5574.	5.0	22
25	Effect of solution chemistry on the iodine release from iodoapatite in aqueous environments. Journal of Nuclear Materials, 2019, 525, 161-170.	2.7	14
26	Inorganic vacancy-ordered perovskite Cs2SnCl6:Bi/GaN heterojunction photodiode for narrowband, visible-blind UV detection. Applied Physics Letters, 2019, 115, 121106.	3.3	27
27	The grain-size effect on thermal conductivity of uranium dioxide. Journal of Applied Physics, 2019, 126,	2.5	20
28	In situ Investigation of Water Interaction with Lead-Free All Inorganic Perovskite (Cs ₂ Snl <i>_x</i> Cl _{6–<i>x</i>}). Journal of Physical Chemistry C, 2019, 123, 9575-9581.	3.1	23
29	Chemical Durability and Dissolution Kinetics of Iodoapatite in Aqueous Solutions. ACS Earth and Space Chemistry, 2019, 3, 452-462.	2.7	16
30	Deciphering the degradation mechanism of the lead-free all inorganic perovskite Cs2SnI6. Npj Materials Degradation, 2019, 3, .	5.8	25
31	Nitrogen-doped highly dense but porous carbon microspheres with ultrahigh volumetric capacitance and rate capability for supercapacitors. Journal of Materials Chemistry A, 2019, 7, 476-485.	10.3	33
32	Microfluidics-enabled orientation and microstructure control of macroscopic graphene fibres. Nature Nanotechnology, 2019, 14, 168-175.	31.5	207
33	Oxygen point defect accumulation in single-phase <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">U</mml:mi><mml:msub><mml:mi mathvariant="normal">U</mml:mi><mml:mi><mml:msub><mml:mi><mml:mi>+</mml:mi>x<td>2.4 nl:mi><td>10 ml:mrow> «</td></td></mml:mi></mml:msub></mml:mi></mml:msub></mml:mrow></mml:math>	2.4 nl:mi> <td>10 ml:mrow> «</td>	10 ml:mrow> «
34	Physical Review Materials, 2019, 3, . Thermally-Conductive andÂMechanically-Robust Graphene Nanoplatelet Reinforced UO2 Composite Nuclear Fuels. Scientific Reports, 2018, 8, 2987.	3.3	19
35	Mechanism of iodine release from iodoapatite in aqueous solution. RSC Advances, 2018, 8, 3951-3957.	3.6	22
36	Tunable optical properties and stability of lead free all inorganic perovskites (Cs ₂ Snl _x Cl _{6â°x}). Journal of Materials Chemistry A, 2018, 6, 2577-2584.	10.3	55

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37	A comparative review of the aqueous corrosion of glasses, crystalline ceramics, and metals. Npj Materials Degradation, 2018, 2, .	5.8	150
38	Dense nanocrystalline <scp>UO</scp> _{2+<i>x</i>} fuel pellets synthesized by high pressure spark plasma sintering. Journal of the American Ceramic Society, 2018, 101, 1105-1115.	3.8	21
39	The thermal stability and consolidation of perovskite variant Cs ₂ SnCl ₆ using spark plasma sintering. Journal of the American Ceramic Society, 2018, 101, 2060-2065.	3.8	15
40	Consolidation of commercial-size UO2 fuel pellets using spark plasma sintering and microstructure/microchemical analysis. MRS Communications, 2018, 8, 979-987.	1.8	8
41	Microstructure control of macroscopic graphene paper by electrospray deposition and its effect on thermal and electrical conductivities. Applied Physics Letters, 2017, 110, .	3.3	12
42	Toward ultrafast lithium ion capacitors: A novel atomic layer deposition seeded preparation of Li4Ti5O12/graphene anode. Nano Energy, 2017, 36, 46-57.	16.0	138
43	Grain growth and pore coarsening in dense nanoâ€crystalline UO _{2+<i>x</i>} fuel pellets. Journal of the American Ceramic Society, 2017, 100, 2651-2658.	3.8	26
44	WastePD, an innovative center on materials degradation. Npj Materials Degradation, 2017, 1, .	5.8	6
45	A first-principles study of the avalanche pressure of alpha zirconium. RSC Advances, 2016, 6, 72551-72558.	3.6	1
46	Stabilizing an amorphous V ₂ O ₅ /carbon nanotube paper electrode with conformal TiO ₂ coating by atomic layer deposition for lithium ion batteries. Journal of Materials Chemistry A, 2016, 4, 537-544.	10.3	57
47	Discovering lead-free perovskite solar materials with a split-anion approach. Nanoscale, 2016, 8, 6284-6289.	5.6	116
48	Radiation Stability of Sparkâ€Plasmaâ€Sintered Lead Vanadate Iodoapatite. Journal of the American Ceramic Society, 2015, 98, 3361-3366.	3.8	15
49	Dense Iodoapatite Ceramics Consolidated by Lowâ€Temperature Spark Plasma Sintering. Journal of the American Ceramic Society, 2015, 98, 3733-3739.	3.8	17
50	Cl-Doped ZnO Nanowire Arrays on 3D Graphene Foam with Highly Efficient Field Emission and Photocatalytic Properties. Small, 2015, 11, 4785-4792.	10.0	71
51	Amorphous Ultrathin SnO ₂ Films by Atomic Layer Deposition on Graphene Network as Highly Stable Anodes for Lithium-Ion Batteries. ACS Applied Materials & Samp; Interfaces, 2015, 7, 27735-27742.	8.0	59
52	Mechanical properties and stabilities of g-ZnS monolayers. RSC Advances, 2015, 5, 11240-11247.	3.6	49
53	Graphene-based sorbents for iodine-129 capture and sequestration. Carbon, 2015, 90, 1-8.	10.3	91
54	Organic–Inorganic Heterointerfaces for Ultrasensitive Detection of Ultraviolet Light. Nano Letters, 2015, 15, 3787-3792.	9.1	117

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55	Ultrahigh volumetric capacitance and cyclic stability of fluorine and nitrogen co-doped carbon microspheres. Nature Communications, 2015, 6, 8503.	12.8	529
56	Two-Dimensional van der Waals Epitaxy Kinetics in a Three-Dimensional Perovskite Halide. Crystal Growth and Design, 2015, 15, 4741-4749.	3.0	128
57	Highly thermally conductive and mechanically strong graphene fibers. Science, 2015, 349, 1083-1087.	12.6	564
58	Ultraviolet Photodetector Fabricated from 3D WO3 Nanowires/Reduced Graphene Oxide Composite Material. Materials Research Society Symposia Proceedings, 2014, 1659, 193-198.	0.1	3
59	Ultrathin gold island films for time-dependent temperature sensing. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	4
60	Largeâ€Area Freestanding Graphene Paper for Superior Thermal Management. Advanced Materials, 2014, 26, 4521-4526.	21.0	386
61	Facile low temperature solid state synthesis of iodoapatite by high-energy ball milling. RSC Advances, 2014, 4, 38718-38725.	3.6	19
62	High-rate lithiation-induced reactivation of mesoporous hollow spheres for long-lived lithium-ion batteries. Nature Communications, 2014, 5, 4526.	12.8	586
63	Bulk Iodoapatite Ceramic Densified by Spark Plasma Sintering with Exceptional Thermal Stability. Journal of the American Ceramic Society, 2014, 97, 2409-2412.	3.8	43
64	Synthesis of ZnO quantum dot/graphene nanocomposites by atomic layer deposition with high lithium storage capacity. Journal of Materials Chemistry A, 2014, 2, 7319-7326.	10.3	117
65	High quality ZnO–TiO 2 core–shell nanowires for efficient ultraviolet sensing. Applied Surface Science, 2014, 314, 872-876.	6.1	63
66	Electrospray deposition of a Co ₃ O ₄ nanoparticles–graphene composite for a binder-free lithium ion battery electrode. RSC Advances, 2014, 4, 1521-1525.	3.6	29
67	Pressure effect on stabilities of self-Interstitials in HCP-Zirconium. Scientific Reports, 2014, 4, 5735.	3.3	18
68	Pseudocapacitance of Amorphous TiO ₂ Thin Films Anchored to Graphene and Carbon Nanotubes Using Atomic Layer Deposition. Journal of Physical Chemistry C, 2013, 117, 22497-22508.	3.1	102
69	Tailoring the radiation tolerance of vanadate–phosphate fluorapatites by chemical composition control. RSC Advances, 2013, 3, 15178.	3.6	26
70	Ultraviolet Photodetector Fabricated From Multiwalled Carbon Nanotubes/Zinc-Oxide Nanowires/p-GaN Composite Structure. IEEE Electron Device Letters, 2013, 34, 1169-1171.	3.9	18
71	Heterojunction photodiode fabricated from multiwalled carbon nanotube/ZnO nanowire/p-silicon composite structure. Applied Physics Letters, 2013, 102, .	3.3	26
72	Heterojunction photodiode fabricated from hydrogen treated ZnO nanowires grown on <i>p</i> -silicon substrate. Applied Physics Letters, 2012, 101, 211103.	3.3	36

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73	Unusual rigidity and ideal strength of CrB4 and MnB4. Applied Physics Letters, 2012, 100, .	3.3	54
74	Peculiar structure and tensile strength of WB4: nonstoichiometric origin. AIP Advances, 2012, 2, .	1.3	46
75	Phase transition and abnormal compressibility of lanthanide silicate with the apatite structure. Physical Review B, 2012, 85, .	3.2	13
76	Temperature-Dependent Morphology Evolution and Surface Plasmon Absorption of Ultrathin Gold Island Films. Journal of Physical Chemistry C, 2012, 116, 9000-9008.	3.1	82
77	Flexible Pillared Grapheneâ€Paper Electrodes for Highâ€Performance Electrochemical Supercapacitors. Small, 2012, 8, 452-459.	10.0	297
78	Porous nickel oxide nano-sheets for high performance pseudocapacitance materials. Journal of Materials Chemistry, 2011, 21, 16581.	6.7	175
79	Energetic stability, structural transition, and thermodynamic properties of ZnSnO3. Applied Physics Letters, 2011, 98, .	3.3	34
80	Tailoring oxidation degrees of graphene oxide by simple chemical reactions. Applied Physics Letters, 2011, 99, .	3.3	42
81	First-Principles Investigation of Structural, Elastic and Electronic Properties of Lanthanide Titanate Oxides Ln ₂ TiO ₅ . Materials Research Society Symposia Proceedings, 2011, 1298, 85.	0.1	4
82	Ion Beam Irradiation-induced Amorphization in Nano-sized KxLnyTa2O7-v Tantalate Pyrochlore. Materials Research Society Symposia Proceedings, 2011, 1298, 147.	0.1	2
83	Plasma Treated Multi-Walled Carbon Nanotubes (MWCNTs) for Epoxy Nanocomposites. Polymers, 2011, 3, 2142-2155.	4.5	24
84	Large-scale graphitic thin films synthesized on Ni and transferred to insulators: Structural and electronic properties. Journal of Applied Physics, 2010, 107, .	2.5	83
85	Intrinsic Structural Disorder and Radiation Response of Nanocrystalline Gd ₂ (Ti _{0.65} Zr _{0.35}) ₂ O ₇ Pyrochlore. Journal of Physical Chemistry C, 2010, 114, 11810-11815.	3.1	38
86	Propagation of ripples on pyrochlore induced by ion beam bombardment. Physical Review B, 2009, 80, .	3.2	30
87	Ion beam-induced amorphous-to-tetragonal phase transformation and grain growth of nanocrystalline zirconia. Nanotechnology, 2009, 20, 245303.	2.6	49
88	Irradiation effects of synthetic coffinite (USiO4) studied by in-situ TEM. Materials Research Society Symposia Proceedings, 2009, 1193, 63.	0.1	3
89	In situ TEM of radiation effects in complex ceramics. Microscopy Research and Technique, 2009, 72, 165-181.	2.2	42
90	Liquid-like phase formation in Gd2Zr2O7 by extremely ionizing irradiation. Journal of Applied Physics, 2009, 105, .	2.5	30

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91	Single-ion tracks in <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mrow><mml:mrow><mml:mtext>Gd</mml:mtext></mml:mrow><mml:mn>2 Physical Review B, 2009, 79, .</mml:mn></mml:mrow></mml:mrow></mml:math>	: ∤n2 ml:mn>	> 1:26 1ml:ms
92	Conjugation of quantum dots and Fe3O4 on carbon nanotubes for medical diagnosis and treatment. Applied Physics Letters, 2009, 95, 223702.	3.3	17
93	Enhanced radiation resistance of nanocrystalline pyrochlore Gd2(Ti0.65Zr0.35)2O7. Applied Physics Letters, 2009, 94, .	3.3	98
94	Bulk Nanostructured Cu with High Strength and Good Ductility. Advanced Engineering Materials, 2008, 10, 41-45.	3.5	13
95	Graphene segregated on Ni surfaces and transferred to insulators. Applied Physics Letters, 2008, 93, .	3.3	1,116
96	Morphological instability of Cu nanolines induced by Ga+-ion bombardment: In situ scanning electron microscopy and theoretical model. Journal of Applied Physics, 2008, 103, 074306.	2.5	6
97	Horizontally aligned Cu5Si polycrystalline nanorods on Si. Applied Physics Letters, 2008, 92, 253113.	3.3	6
98	High pressure phase transitions and compressibilities of Er2Zr2O7 and Ho2Zr2O7. Applied Physics Letters, 2008, 92, .	3.3	28
99	Effects of plasma surface modification on interfacial behaviors and mechanical properties of carbon nanotube-Al2O3 nanocomposites. Applied Physics Letters, 2007, 91, .	3.3	22
100	Effects of surface modification, carbon nanofiber concentration, and dispersion time on the mechanical properties of carbon-nanofiber–polycarbonate composites. Journal of Applied Polymer Science, 2007, 103, 3792-3797.	2.6	22
101	Study of dielectric and piezoelectric properties of Pb(Ni,Nb)O3–Pb(Zr,Ti)O3 ceramics using mechanically activated powder. Journal of Materials Science, 2007, 42, 6246-6251.	3.7	3
102	Improving the Mechanical Properties of Polycarbonate Nanocomposites with Plasmaâ€Modified Carbon Nanofibers. Journal of Macromolecular Science - Physics, 2006, 45, 671-679.	1.0	25
103	Patterning Metallic Nanostructures by Ion-Beam-Induced Dewetting and Rayleigh Instability. Nano Letters, 2006, 6, 1047-1052.	9.1	133
104	Low-temperature high-pressure preparation of transparent nanocrystalline MgAl2O4 ceramics. Applied Physics Letters, 2006, 88, 213120.	3.3	82
105	Probing cation antisite disorder inGd2Ti2O7pyrochlore by site-specific near-edge x-ray-absorption fine structure and x-ray photoelectron spectroscopy. Physical Review B, 2004, 70, .	3.2	32
106	Ion-beam irradiation of Gd2Sn2O7 and Gd2Hf2O7 pyrochlore: Bond-type effect. Journal of Materials Research, 2004, 19, 1575-1580.	2.6	79
107	Magnetic Alignment of Carbon Nanofibers in Polymer Composites. Materials Research Society Symposia Proceedings, 2004, 858, 248.	0.1	O
108	Preparation of YBCO Films on CeO ₂ â€Buffered (001) YSZ Substrates by a Nonâ€Fluorine MOD Method. Journal of the American Ceramic Society, 2004, 87, 1669-1676.	3.8	31

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109	Nuclear waste disposalâ€"pyrochlore (A2B2O7): Nuclear waste form for the immobilization of plutonium and "minor―actinides. Journal of Applied Physics, 2004, 95, 5949-5971.	2.5	951
110	Ion Beam-Induced Amorphization of the Pyrochlore Structure-Type: A Review. Materials Research Society Symposia Proceedings, 2003, 792, 190.	0.1	11
111	Microstructures of epitaxial YBa/sub 2 /Cu/sub 3 /O/sub 7 -Î/ 1 thick films grown by photoassisted metal-organic chemical vapor deposition. IEEE Transactions on Applied Superconductivity, 2003, 13, 3839-3844.	1.7	4
112	Radiation Effects in Murataite Ceramics. Materials Research Society Symposia Proceedings, 2003, 807, 48.	0.1	11
113	Thermochemical Investigations of Zirconolite, Pyrochlore and Brannerite: Candidate Materials for the Immobilization of Plutonium. Materials Research Society Symposia Proceedings, 2003, 807, 337.	0.1	2
114	Microstructural evolution and nanocrystal formation in Pb+-implanted ZrSiO4 single crystals. Journal of Applied Physics, 2003, 94, 5695-5703.	2.5	18
115	Ion-irradiation-induced amorphization ofLa2Zr2O7pyrochlore. Physical Review B, 2002, 66, .	3.2	246
116	Plasma deposition and characterization of acrylic acid thin film on ZnO nanoparticles. Journal of Materials Research, 2002, 17, 2555-2560.	2.6	57
117	Structural Alterations in Titanate Pyrochlores Induced by Ion Irradiation: Xray Photoelectron Spectrum Interpretation. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	2
118	Ion-Induced Amorphization of Murataite. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	4
119	Heavy Ion Irradiation of Zirconate Pyrochlores. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	5
120	Coating of Ultrathin Polymer Films on Carbon Nanotubes by a Plasma Treatment. Materials Research Society Symposia Proceedings, 2002, 740, 1.	0.1	1
121	Nanoscale Structural Manipulation of Ion Irradiated Pyrochlore. Microscopy and Microanalysis, 2002, 8, 1136-1137.	0.4	0
122	In Situ TEM Study of Order-Disorder Transition in Murataite Ceramics. Microscopy and Microanalysis, 2002, 8, 1424-1425.	0.4	1
123	Tem Study of Nano-Crystals in Strontium Ion-Implanted Cubic Zirconia. Microscopy and Microanalysis, 2001, 7, 406-407.	0.4	0
124	Direct Observation of Single Displacement Cascade in Pyrochlore by Tv-Rate In-Situ TEM and Ex-Situ HRTEM. Microscopy and Microanalysis, 2001, 7, 408-409.	0.4	0
125	Deposition of Polymer Thin Films on ZnO Nanoparticles by a Plasma Treatment. Materials Research Society Symposia Proceedings, 2001, 703, 1.	0.1	1
126	Nanoscale Manipulation of Pyrochlore: New Nanocomposite Ionic Conductors. Physical Review Letters, 2001, 87, 145901.	7.8	146

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127	Heavy Ion Irradiation of Brannerite-type Ceramics. Materials Research Society Symposia Proceedings, 2000, 650, 3171.	0.1	3
128	Joining of Molten Salt Reaction Titanium-metallized Si3N4 to Si3N4. Journal of Materials Science Letters, 1998, 17, 2113-2115.	0.5	2