Akira Yoshikawa

List of Publications by Year
in descending order

115	5,025	147801	91884
papers	citations	31 h-index	69 g-index

115	115	115	2234
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Recent R&D Trends in Inorganic Singleâ€Crystal Scintillator Materials for Radiation Detection. Advanced Optical Materials, 2015, 3, 463-481.	7.3	567
2	Composition Engineering in Cerium-Doped (Lu,Gd)₃(Ga,Al)₅O₁₂ Single-Crystal Scintillators. Crystal Growth and Design, 2011, 11, 4484-4490.	3.0	461
3	Needs, Trends, and Advances in Inorganic Scintillators. IEEE Transactions on Nuclear Science, 2018, 65, 1977-1997.	2.0	305
4	2inch diameter single crystal growth and scintillation properties of Ce:Gd3Al2Ga3O12. Journal of Crystal Growth, 2012, 352, 88-90.	1.5	272
5	Development of LuAG-based scintillator crystals â€“ A review. Progress in Crystal Growth and Characterization of Materials, 2013, 59, 47-72.	4.0	249
6	Defect Engineering in Ce-Doped Aluminum Garnet Single Crystal Scintillators. Crystal Growth and Design, 2014, 14, 4827-4833.	3.0	197
7	Scintillator-oriented combinatorial search in Ce-doped (Y,Gd)₃(Ga,Al)₅O₁₂ multicomponent garnet compounds. Journal Physics D: Applied Physics, 2011, 44, 505104.	2.8	195
8	Challenge and study for developing of novel single crystalline optical materials using micro-pulling-down method. Optical Materials, 2007, 30, 6-10.	3.6	187
9	Cz grown 2-in. size Ce:Gd3(Al,Ga)5O12 single crystal; relationship between Al, Ga site occupancy and scintillation properties. Optical Materials, 2014, 36, 1942-1945.	3.6	151
10	Antisite defect-free Lu3(GaxAl1â^'x)5O12:Pr scintillator. Applied Physics Letters, 2006, 88, 141916.	3.3	143
11	Pr³⁺-doped complex oxide single crystal scintillators. Journal Physics D: Applied Physics, 2009, 42, 055117.	2.8	128
12	Performance of cerium-doped Gd3Al2Ga3O12 (GAGG:Ce) scintillator in gamma-ray spectrometry. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 712, 34-40.	1.6	117
13	Microstructures in oxide eutectic fibers grown by a modified micro-pulling-down method. Journal of Crystal Growth, 1999, 205, 305-316.	1.5	115
14	Alkali earth co-doping effects on luminescence and scintillation properties of Ce doped Gd3Al2Ga3O12 scintillator. Optical Materials, 2015, 41, 63-66.	3.6	114
15	Microstructure of Al2O3/ZrO2 eutectic fibers grown by the micro-pulling down method. Journal of Crystal Growth, 2001, 222, 791-796.	1.5	93
16	Effect of Mg 2+ ions co-doping on timing performance and radiation tolerance of Cerium doped Gd 3 Al 2 Ga 3 O 12 crystals. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 816, 176-183.	1.6	90
17	A prototype of aerial radiation monitoring system using an unmanned helicopter mounting a GAGG scintillator Compton camera. Journal of Nuclear Science and Technology, 2016, 53, 1067-1075.	1.3	80
18	Growth of Optical Crystals by the Micro-Pulling-Down Method. MRS Bulletin, 2009, 34, 266-270.	3.5	76

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19	Studies of low temperature thermoluminescence of GAGG:Ce and LuAG:Pr scintillator crystals using the Tmaxâ€“Tstop method. Journal of Luminescence, 2014, 154, 452-457.	3.1	72
20	Studies of light yield as a function of temperature and low temperature thermoluminescence of Gd3Al2Ga3O12:Ce scintillator crystals. Optical Materials, 2014, 36, 1665-1669.	3.6	65
21	Submicron-diameter phase-separated scintillator fibers for high-resolution X-ray imaging. Applied Physics Letters, 2013, 102, .	3.3	63
22	Phase identification of Al2O3/RE3Al5O12 and Al2O3/REAlO3 (RE=Smâ€“Lu,Y) eutectics. Journal of Crystal Growth, 2000, 218, 67-73.	1.5	62
23	Large Size Czochralski Growth and Scintillation Properties of. IEEE Transactions on Nuclear Science, 2016, 63, 443-447.	2.0	49
24	Positron emission mammography using Pr:LuAG scintillator â€“ Fusion of optical material study and systems engineering. Optical Materials, 2010, 32, 1294-1297.	3.6	42
25	Field test around Fukushima Daiichi nuclear power plant site using improved Ce:Gd₃(Al,Ga)₅O₁₂ scintillator Compton camera mounted on an unmanned helicopter. Journal of Nuclear Science and Technology, 2016, 53, 1907-1918.	1.3	38
26	Luminescence and scintillation mechanism in Ce3+and Pr3+doped (Lu,Y,Gd)3(Ga,Al)5O12single crystal scintillators. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 172-175.	0.8	37
27	Growth and scintillation properties of 3 in. diameter Ce doped Gd3Ga3Al2O12 scintillation single crystal. Journal of Crystal Growth, 2016, 452, 81-84.	1.5	37
28	Luminescence and scintillation properties of Mg-codoped LuAG:Pr single crystals annealed in air. Journal of Luminescence, 2017, 181, 277-285.	3.1	37
29	Orientation relationships of unidirectionally aligned GdAlO3/Al2O3 eutectic fibers. Journal of the European Ceramic Society, 2014, 34, 3849-3857.	5.7	36
30	Luminescence Characteristics of the Ce³⁺-Doped Pyrosilicates: The Case of La-Admixed Gd₂Si₂O₇ Single Crystals. Journal of Physical Chemistry C, 2014, 118, 26521-26529.	3.1	33
31	Crystal growth and scintillation properties of multi-component oxide single crystals: Ce:GGAG and Ce:La-GPS. Journal of Luminescence, 2016, 169, 387-393.	3.1	33
32	Timing capabilities of garnet crystals for detection of high energy charged particles. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 852, 1-9.	1.6	32
33	Growth, Structural Considerations, and Characterization of Ce-Doped (La,Gd)₂Si₂O₇ Scintillating Crystals. Crystal Growth and Design, 2015, 15, 1642-1651.	3.0	31
34	Optical and scintillation properties of Ce 3+ -doped YGd 2 Al 5â˜'x Ga x O 12 (x =2,3,4) single crystal scintillators. Journal of Luminescence, 2016, 169, 43-50.	3.1	31
35	Performance of Ce-doped (La, Gd)2Si2O7 scintillator with an avalanche photodiode. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 744, 30-34.	1.6	29
36	Afterglow Suppression by Codoping with Bi in CsI:Tl Crystal Scintillator. Applied Physics Express, 2012, 5, 052601.	2.4	28

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37	Scintillation properties of Ce:(La,Gd)2Si2O7 at high temperatures. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 772, 72-75.	1.6	28
38	Development of Composite Scintillators Based on Single Crystalline Films and Crystals of Ce³⁺-Doped (Lu,Gd)₃(Al,Ga)₅O₁₂ Mixed Garnet Compounds. Crystal Growth and Design, 2018, 18, 1834-1842.	3.0	26
39	Ga for Al substitution effects on the garnet phase stability and luminescence properties of Gd3GaxAl5-xO12:Ce single crystals. Journal of Luminescence, 2019, 216, 116724.	3.1	26
40	Luminescence and scintillation characteristics of Gd3Al2Ga3O12:Ce3+ scintillators. Optical Materials, 2013, 36, 568-571.	3.6	24
41	Growth of Eu:SrI2 bulk crystals and their scintillation properties. Journal of Crystal Growth, 2014, 401, 343-346.	1.5	24
42	Growth and scintillation properties of Eu doped LiSrI3/LiI eutectics. Optical Materials, 2017, 68, 70-74.	3.6	23
43	Development of novel growth methods for halide single crystals. Optical Materials, 2017, 65, 46-51.	3.6	22
44	LiF/CaF₂/LiBaF₃ ternary fluoride eutectic scintillator. Japanese Journal of Applied Physics, 2015, 54, 04DH04.	1.5	21
45	Luminescence and scintillation characteristics of (GdxY3-x)Al2Ga3O12:Ce (xÂ=Â1,2,3) single crystals. Optical Materials, 2018, 76, 162-168.	3.6	21
46	Crystal growth of LiF/LiYF4 eutectic crystals and their luminescent properties. Journal of the European Ceramic Society, 2014, 34, 2117-2121.	5.7	19
47	2 inch size Czochralski growth and scintillation properties of Li + co-doped Ce:Gd 3 Ga 3 Al 2 O 12. Optical Materials, 2017, 65, 52-55.	3.6	18
48	Scintillation properties of Gd3(Al5-xGax)O12:Ce (x = 2.3, 2.6, 3.0) single crystals. Optical Materials, 2018, 81, 23-29.	3.6	17
49	Development of a novel red-emitting cesium hafnium iodide scintillator. Radiation Measurements, 2019, 124, 54-58.	1.4	17
50	Single crystal growth of Ce:Gd3(Ga,Al)5O12 with various Mg concentration and their scintillation properties. Journal of Crystal Growth, 2017, 468, 407-410.	1.5	15
51	Crystal Growth and Scintillation Properties of Fluoride Scintillators. IEEE Transactions on Nuclear Science, 2012, 59, 2173-2176.	2.0	14
52	Growth and optical properties of LiF/LaF3 eutectic crystals. Journal of the European Ceramic Society, 2014, 34, 2111-2115.	5.7	14
53	Luminescence and scintillation properties of Ce dope SrHfO3 based eutectics. Optical Materials, 2015, 41, 41-44.	3.6	14
54	Fiber-read radiation monitoring system using an optical fiber and red-emitting scintillator for ultra-high-dose conditions. Applied Physics Express, 2020, 13, 047002.	2.4	14

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55	The scintillation performance of one-inch diameter CsI/CsCl/NaCl eutectics grown by the Czochralski method. Journal of Crystal Growth, 2021, 572, 126266.	1.5	14
56	Growth of 2 Inch Eu-doped SrI2 single crystals for scintillator applications. Journal of Crystal Growth, 2016, 452, 73-80.	1.5	13
57	Cesium hafnium chloride scintillator coupled with an avalanche photodiode photodetector. Journal of Instrumentation, 2017, 12, C02042-C02042.	1.2	13
58	Spectroscopic investigation of praseodymium and cerium co-doped 20Al(PO3)3-80LiF glass for potential scintillator applications. Journal of Non-Crystalline Solids, 2019, 521, 119495.	3.1	13
59	Development of a high resolution LaGPS imaging detector with pulse shape discrimination capability of different types of radiations. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 922, 8-18.	1.6	13
60	Optimization of Dopants and Scintillation Fibersâ€™ Diameter of GdAlO₃/$alpha$ -Al₂O₃ Eutectic for High-Resolution X-Ray Imaging. IEEE Transactions on Nuclear Science, 2018, 65, 2036-2040.	2.0	13
61	Modified vertical Bridgman method: Time and cost effective tool for preparation of Cs2HfCl6 single crystals. Journal of Crystal Growth, 2020, 533, 125479.	1.5	12
62	1000ÂK optical ratiometric thermometer based on Er3+ luminescence in yttrium gallium garnet. Journal of Alloys and Compounds, 2021, 886, 161188.	5.5	12
63	Composite Detectors Based on Single-Crystalline Films and Single Crystals of Garnet Compounds. Materials, 2022, 15, 1249.	2.9	12
64	Scintillation Characteristics of MgÂ²âº-Codoped Y_{0.8}Gd_{2.2}(Alâ,..._{â€“}â,“Gaâ,“)O₁₂:Ce Single Crystals. IEEE Transactions on Nuclear Science, 2020, 67, 910-914.	1.4	11
65	Development of large size crystal growth technology of oxide eutectic scintillator and a proto-type Talbotâ€“Lau imaging system. Japanese Journal of Applied Physics, 2021, 60, SBBK04.	1.5	11
66	Growth of ⁶Li-enriched LiCl/BaCl₂ eutectic as a novel neutron scintillator. Japanese Journal of Applied Physics, 2022, 61, SC1038.	1.5	11
67	Growth of 1.5-In Eu : Single Crystal and Scintillation Properties. IEEE Transactions on Nuclear Science, 2016, 63, 467-470.	2.0	10
68	Growth and luminescence properties of Eu-doped HfO2/Î±-Al2O3 eutectic scintillator. Journal of Rare Earths, 2016, 34, 796-801.	4.8	10
69	Crystal growth and luminescence properties of Yb2Si2O7 infra-red emission scintillator. Optical Materials, 2016, 58, 14-17.	3.6	9
70	An ultrahigh spatial resolution radiation-imaging detector using 0.1ÂmmÂÃ—Â0.1 mm pixelated GAGG plate combined with 1 mm channel size Si-PM array. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 919, 125-133.	1.6	9
71	Luminescence and Scintillation Properties of Mg²⁺-Codoped Lu_{0.6}Gd_{2.4}Al₂Ga₃O₁₂:Ce Single Crystal. IEEE Transactions on Nuclear Science, 2020, 67, 904-909.	2.0	9
72	Scintillation properties of Zr co-doped Ce:(Gd, La)2Si2O7 grown by the Czochralski process. Radiation Measurements, 2016, 90, 162-165.	1.4	8

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73	Growth and Luminescent Properties of Cs₂HfCl₆ Scintillators Doped With Alkaline Earth Metals. IEEE Transactions on Nuclear Science, 2018, 65, 2169-2173.	2.0	8
74	Growth and scintillation properties of Tl-doped CsI/CsCl/NaCl ternary eutectic scintillators. Japanese Journal of Applied Physics, 2021, 60, SBBK01.	1.5	8
75	Growth and scintillation properties of Ce doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e270" altimg="si3.svg"><mml:msup><mml:mrow /><mml:mrow><mml:mn>6</mml:mn></mml:mrow></mml:msup></mml:math>LiBr/LaBr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e278" altimg="si13.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:ms	1.6	8
76	Comprehensive Study on Ce-Doped (Gd, La)₂Si₂O₇ Scintillator. IEEE Transactions on Nuclear Science, 2018, 65, 2136-2139.	2.0	7
77	Growth and Scintillation Properties of a New Red-Emitting Scintillator Rbâ‚‚Hflâ‚† for the Fiber-Reading Radiation Monitor. IEEE Transactions on Nuclear Science, 2020, 67, 1055-1062.	2.0	7
78	Growth and Scintillation Properties of Directionally Solidified Ce:LaBr3/AEBr2 (AE = Mg, Ca, Sr, Ba) Eutectic System. Crystals, 2020, 10, 584.	2.2	7
79	Czochralski growth of 2 in. Ce-doped (La,Gd)2Si2O7 for scintillator application. Journal of Crystal Growth, 2016, 452, 57-64.	1.5	6
80	Influence of Mg-codoping, non-stoichiometry and Ga-admixture on LuAG:Ce scintillation properties. Optical Materials, 2018, 86, 213-232.	3.6	6
81	New Efficient Scintillating and Photoconversion Materials Based on the Selfâ€Flux Grown Tb 3 Al 5 O 12 :Ce Single Crystal. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000327.	2.4	6
82	Performance Evaluation of Liquinert-Processed CeBrâ‚ƒ Crystals Coupled With a Multipixel Photon Counter. IEEE Transactions on Nuclear Science, 2020, 67, 988-993.	2.0	6
83	Investigations on the electric-dipole allowed 4f25d â†’ 4f3 broadband emission of Nd3+-doped 20Al(PO3)3-80LiF glass for potential VUV scintillator application. Journal of Alloys and Compounds, 2021, 856, 158096.	5.5	6
84	Growth and scintillation properties of Ce doped Gd2Si2O7/SiO2eutectics. Journal of Physics: Conference Series, 2015, 619, 012036.	0.4	5
85	Timing characteristics of the scintillation response of Gd3Al2Ga3O12:Ce and Gd3Al2.6Ga2.4O12:Ce single crystal scintillators. Radiation Measurements, 2016, 87, 24-28.	1.4	5
86	Basic performance of Mg co-doped new scintillator used for TOF-DOI-PET systems. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 842, 14-19.	1.6	5
87	Afterglow and Quantum Tunneling in Ce-Doped Lutetium Aluminum Garnet. IEEE Transactions on Nuclear Science, 2018, 65, 2085-2089.	2.0	5
88	Non-proportionality of GAGG:Ce scintillators down to 50 eV electron equivalent by application of alpha particle excitation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 898, 24-29.	1.6	5
89	Single-crystal growth, structure and luminescence properties of Cs2HfCl3Br3. Optical Materials, 2020, 106, 109942.	3.6	5
90	Bulk Single Crystal Growth of W Co-Doped Ce:Gdâ‚ƒGaâ‚ƒAlâ‚‚Oâ‚,â‚‚ by Czochralski Method. IEEE Transactions on Nuclear Science, 2020, 67, 1045-1048.	2.0	5

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91	Large size growth of terbium doped BaCl2/NaCl/KCl eutectic for radiation imaging. Japanese Journal of Applied Physics, 0, , .	1.5	5
92	Optical, luminescence and scintillation properties of Mg2+-codoped (Lu,Y)3Al2Ga3O12:Pr garnet crystals: The effect of Y admixture. Radiation Physics and Chemistry, 2022, 201, 110400.	2.8	5
93	Development of Eu:SrI2 Scintillator Array for Gamma-Ray Imaging Applications. IEEE Transactions on Nuclear Science, 2017, 64, 1647-1651.	2.0	4
94	Light Yield and Timing Characteristics of Luâ‚€.â‚ˆGdâ‚‚.â‚ƒ(Al_{5â€“x}Gax)Oâ‚‰:Ce,Mg Single Crystals. IEEE Transactions on Nuclear Science, 2020, 67, 2295-2299.	2.0	4
95	Effect of W and Mo co-doping on the photo- and thermally stimulated luminescence and defects creation processes in Gd3(Ga,Al)5O12:Ce crystals. Optical Materials, 2021, 114, 110923.	3.6	4
96	Scintillation characteristics and temperature quenching of radio- and photoluminescence of Mg2+-codoped (Lu,Gd)3Al2.4Ga2.6O12:Ce garnet crystals. Optical Materials, 2021, 121, 111595.	3.6	4
97	Cs2HfCl6 doped with Zr: Influence of tetravalent substitution on scintillation properties. Journal of Crystal Growth, 2021, 573, 126307.	1.5	4
98	Crystal Growth and Scintillation Properties of Carbazole for Neutron Detection. IEEE Transactions on Nuclear Science, 2020, 67, 1027-1031.	2.0	4
99	Microstructure and thermoelectric properties of La-doped SrTiO3/TiO2 eutectic crystals grown by Micro-Pulling-Down method. Journal of Crystal Growth, 2022, 583, 126551.	1.5	4
100	Cerium-doped gadolinium fine aluminum gallate in scintillation spectrometry. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 979, 164464.	1.6	3
101	Growth and scintillation properties of Tl-doped CsI/KI/KCl ternary eutectics. Journal of Crystal Growth, 2021, 573, 126287.	1.5	3
102	Temperature Characteristics of Resonance Frequency for Double-Layered Thickness-Shear Resonator. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 870-877.	3.0	3
103	Growth of Tb-doped BaCl2/NaCl/KCl ternary eutectic and its luminescence properties. Journal of Crystal Growth, 2022, 580, 126467.	1.5	3
104	Pulse-shape discrimination potential of new scintillator material: La-GPS:Ce. Journal of Instrumentation, 2019, 14, P06037-P06037.	1.2	2
105	Composite Scintillators Based on the Films and Crystals of (Lu,Gd,La)2Si2O7 Pyrosilicates. IEEE Transactions on Nuclear Science, 2020, 67, 994-998.	2.0	2
106	Luminescence and scintillation properties of Mo co-doped Y0.8Gd2.2(Al5-xGax)O12: Ce multicomponent garnet crystals. Optical Materials, 2021, 122, 111783.	3.6	2
107	Temperature Dependence on Scintillation Properties of La-GPS(Ce). , 2017, , .		1
108	Comparative Study of GdLu₂Al₂Ga₃O₁₂:Ce and GdY₂Al₂Ga₃O₁₂:Ce Scintillation Crystals for $gamma$ -Ray Detection. IEEE Transactions on Nuclear Science, 2018, 65, 2081-2084.	2.0	1

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109	Growth of Zn3Ta2O8 crystal scintillator by a novel melt growth technique named shielded arc melting method. Optical Materials: X, 2022, 14, 100149.	0.8	1
110	Temperature dependence of radio- and photoluminescence and scintillation properties of Y0.6Gd2.4Al2Ga3O12:Ce,Mg single crystal. Optical Materials, 2022, 131, 112662.	3.6	1
111	Investigation of the Relation of Decay Time Differences and $alpha-eta$ Ratios for Newly Developed Scintillators. IEEE Transactions on Nuclear Science, 2019, 66, 2324-2328.	2.0	0
112	Development of Gamma-Ray Detector Arrays Consisting of Diced Eu-Doped SrI2 Scintillator Arrays and TSV-MPPC Arrays. IEEE Transactions on Nuclear Science, 2020, 67, 999-1002.	2.0	0
113	Development of the Multi-Cubic Î³-ray spectrometer and its performance under intense 137Cs and 60Co radiation fields. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 1010, 165544.	1.6	0
114	Crystal growth and luminescence properties of phenanthrene for neutron detection. Journal of Crystal Growth, 2022, 581, 126494.	1.5	0
115	Growth of thallium-doped CsI/CsCl/KCl eutectics and their scintillation properties. Optical Materials: X, 2022, , 100159.	0.8	0