

# Tomoko Akai

## List of Publications by Year in descending order

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50  
papers

905  
citations

430874

18  
h-index

501196

28  
g-index

50  
all docs

50  
docs citations

50  
times ranked

834  
citing authors

#	ARTICLE	IF	CITATIONS
1	Near-infrared-to-visible upconversion from 980 nm excitation band by binary solid of PbS quantum dot with directly attached emitter. <i>Journal of Materials Chemistry C</i> , 2022, 10, 4563-4567.	5.5	8
2	The State of Dy Incorporated in SrAl <sub>2</sub> O <sub>4</sub> Crystals by Low-temperature Annealing and Its Photoluminescence and Afterglow Properties. <i>Chemistry Letters</i> , 2022, 51, 197-200.	1.3	0
3	Franck-Condon relaxation in photo-excited YAG:Ce studied using real-time time-dependent density functional theory. <i>Journal of Luminescence</i> , 2021, 229, 117647.	3.1	2
4	Efficient NIR-to-Visible Upconversion of Surface-Modified PbS Quantum Dots for Photovoltaic Devices. <i>ACS Applied Nano Materials</i> , 2021, 4, 9680-9688.	5.0	9
5	Structural designing of Zn <sub>2</sub> SiO <sub>4</sub> :Mn nanocrystals by co-doping of alkali metal ions in mesoporous silica channels for enhanced emission efficiency with short decay time. <i>RSC Advances</i> , 2021, 11, 36348-36353.	3.6	6
6	Massive red shift of Ce <sup>3+</sup> in Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> incorporating super-high content of Ce. <i>RSC Advances</i> , 2020, 10, 12535-12546.	3.6	32
7	Effect of Mg <sup>2+</sup> and fluorine on the network and highly efficient photoluminescence of Eu <sup>3+</sup> ion in MgF <sub>2</sub> ·BaO·B <sub>2</sub> O <sub>3</sub> glasses. <i>Journal of the American Ceramic Society</i> , 2019, 102, 2531-2541.	3.8	9
8	Synthesis of new transparent borate-based BaF <sub>2</sub> nanocrystallized glass by formation of nucleation sites induced by rare earth ions. <i>Journal of the European Ceramic Society</i> , 2019, 39, 1735-1739.	5.7	15
9	Red and green upconversion luminescence in Eu <sup>3+</sup> and Tb <sup>3+</sup> doped high-silica glass via multiphoton absorption of 800 nm femtosecond laser irradiation. <i>Materials Research Express</i> , 2018, 5, 085202.	1.6	2
10	Scintillation and VUV-excited photoluminescence of europium-doped BaF <sub>2</sub> ·Al <sub>2</sub> O <sub>3</sub> ·B <sub>2</sub> O <sub>3</sub> glasses. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 11824-11829.	2.2	14
11	Recovery of LaPO <sub>4</sub> :Ce, Tb from waste phosphors using high-gradient magnetic separation. <i>Waste Management</i> , 2018, 79, 164-168.	7.4	16
12	Stabilization of Metastable Nano-Size <sup>2+</sup> Zn <sub>2</sub> SiO <sub>4</sub> :Mn Emitting Yellow Luminescence in Silica Glass. <i>Materials Science Forum</i> , 2017, 886, 102-107.	0.3	0
13	Highly efficient red-emitting BaMgBO <sub>3</sub> F:Eu <sup>3+</sup> , R <sup>+</sup> (R: Li, Na, K, Rb) phosphor for near-UV excitation synthesized via glass precursor solid-state reaction. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 092601.	1.5	6
14	Enhancement of photoluminescence of glass phosphor by nanoimprint of moth-eye structure. <i>Journal of the Ceramic Society of Japan</i> , 2017, 125, 766-769.	1.1	1
15	Synthesis and improved emission characteristics of BCNO@silica composites. <i>Journal of Materials Chemistry C</i> , 2014, 2, 622-625.	5.5	19
16	Observations on size confinement effect in B-C-N nanoparticles embedded in mesoporous silica channels. <i>Applied Physics Letters</i> , 2014, 105, 014106.	3.3	3
17	Leaching behavior of cathode ray tube (CRT) glasses. <i>Journal of the Ceramic Society of Japan</i> , 2014, 122, 1020-1027.	1.1	2
18	Pattern transfer of nanostructures onto glass using nanoimprint films. <i>Materials Letters</i> , 2013, 91, 84-87.	2.6	0

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19	Reducing Tb, Eu in Phosphors used for Energy Efficient Lighting. Journal of the Institute of Electrical Engineers of Japan, 2012, 132, 746-749.	0.0	0
20	Tailoring of clusters of active ions in sintered nanoporous silica glass for white light luminescence. Journal of Materials Chemistry, 2011, 21, 6274.	6.7	39
21	Adjusting valence state of europium in sintered porous glass by adding of aluminum and yttrium. Journal of Non-Crystalline Solids, 2011, 357, 2400-2402.	3.1	9
22	Introductory Investigation on Leaching Test of Cathode-Ray Tube Glass. Journal of MMIJ, 2011, 127, 577-583.	0.3	1
23	Effect of B <sub>2</sub> O <sub>3</sub> content on crack initiation under Vickers indentation test. Journal of the Ceramic Society of Japan, 2010, 118, 792-798.	1.1	56
24	<sup>11</sup> B- <sup>11</sup> B Two-dimensional Correlation Nuclear Magnetic Resonance on Sodium Borosilicate Glass. Chemistry Letters, 2010, 39, 32-33.	1.3	8
25	Leaching behavior of CRT funnel glass. Journal of Hazardous Materials, 2010, 184, 58-64.	12.4	36
26	Formation of color centers in a soda-lime silicate glass by excimer laser irradiation. Journal of Physics Condensed Matter, 2010, 22, 045901.	1.8	9
27	Effects of iron on the formation and annihilation of X-ray irradiation induced non-bridging oxygen hole centers in soda-lime silicate glass. Journal of Non-Crystalline Solids, 2010, 356, 232-235.	3.1	14
28	Effect of additive ions on the optical density and stability of the color centers induced by X-ray irradiation in soda-lime silicate glass. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2411-2415.	1.4	19
29	Green and red high-silica luminous glass suitable for near- ultraviolet excitation. Optics Express, 2009, 17, 6688.	3.4	46
30	Preparation and photoluminescence properties of Vycor glasses impregnated with Tb <sup>3+</sup> and Ce <sup>3+</sup> (or) Tj ETQqO O 0,rgBT /Overlock 10 T	4.6	8
31	Blue Green Emission From a Cu <sup>+</sup> -Doped Transparent Material Prepared by Sintering Porous Glass. IEEE Photonics Technology Letters, 2008, 20, 1390-1392.	2.5	6
32	Effect of preparation procedure on redox states of iron in soda-lime silicate glass. Journal of Non-Crystalline Solids, 2008, 354, 4534-4538.	3.1	25
33	Blue emission from Eu <sup>2+</sup> -doped high silica glass by near-infrared femtosecond laser irradiation. Journal of Applied Physics, 2008, 103, 023108.	2.5	25
34	Tb <sup>3+</sup> -impregnated, non-porous silica glass possessing intense green luminescence under UV and VUV excitation. Journal of Non-Crystalline Solids, 2006, 352, 2969-2976.	3.1	21
35	Spectroscopic Properties of Nd <sup>3+</sup> -Doped High Silica Glass Prepared by Sintering Porous Glass. Journal of Rare Earths, 2006, 24, 765-770.	4.8	32
36	Preparation and Fluorescent Property of Eu-Doped High Silica Glasses. Journal of Rare Earths, 2006, 24, 191-195.	4.8	9

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37	Extraction of heavy metal ions from waste colored glass through phase separation. Waste Management, 2006, 26, 1017-1023.	7.4	30
38	Preparation and spectroscopic properties of Er <sup>3+</sup> -doped high silica glass fabricated by sintering nanoporous glass. Materials Letters, 2006, 60, 1987-1989.	2.6	19
39	Colorless Transparent Fluorescence Material at the VUV Excitation: The Leached Sintered Glass with Impregnation of Tb <sup>3+</sup> ions. Chemistry Letters, 2005, 34, 1176-1177.	1.3	21
40	Leaching Behavior of Sodium from Fine Particles of Soda-Lime-Silicate Glass in Acid Solution. Journal of the American Ceramic Society, 2005, 88, 2962-2965.	3.8	10
41	Colorless transparent fluorescence material: Sintered porous glass containing rare-earth and transition-metal ions. Applied Physics Letters, 2005, 86, 231908.	3.3	90
42	A silver-containing halogen-free inorganic photochromic glass. Chemical Communications, 2001, , 2090-2091.	4.1	17
43	Dynamics of Proton Transfer in the Solâˆ“Gel-Derived P2O5âˆ“SiO2 Glasses. Journal of Physical Chemistry B, 2001, 105, 4653-4656.	2.6	44
44	Remarkable High Proton Conducting P2O5-SiO2 Glass as a Fuel Cell Electrolyte Working at Sub-Zero to 120.DEG.C... Journal of the Ceramic Society of Japan, 2001, 109, 815-817.	1.3	40
45	Coordination structures of implanted Fe, Co, and Ni ions in silica glass by x-ray absorption fine structure spectroscopy. Journal of Materials Research, 2001, 16, 155-162.	2.6	9
46	Reversible control of silver nanoparticle generation and dissolution in soda-lime silicate glass through x-ray irradiation and heat treatment. Applied Physics Letters, 2001, 79, 3687-3689.	3.3	45
47	Clarification of Phase Separation Mechanism of Sodium Borosilicate Glasses in Early Stage by Nuclear Magnetic Resonance. Journal of Physical Chemistry B, 2000, 104, 2109-2116.	2.6	31
48	Structural investigation on implanted copper ions in silica glass by XAFS spectroscopy. Journal of Non-Crystalline Solids, 1998, 238, 143-151.	3.1	12
49	Chemical behavior of platinum-group metals in oxide glasses. Journal of Non-Crystalline Solids, 1997, 222, 304-309.	3.1	15
50	Formation of CuCl ultrafine particles in silica glass by ion implantation. Journal of Non-Crystalline Solids, 1994, 178, 155-159.	3.1	15