

Tomoko Akai

List of Publications by Year in descending order

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50
papers

905
citations

430874

18
h-index

501196

28
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50
all docs

50
docs citations

50
times ranked

834
citing authors

#	ARTICLE	IF	CITATIONS
1	Colorless transparent fluorescence material: Sintered porous glass containing rare-earth and transition-metal ions. Applied Physics Letters, 2005, 86, 231908.	3.3	90
2	Effect of B ₂ O ₃ content on crack initiation under Vickers indentation test. Journal of the Ceramic Society of Japan, 2010, 118, 792-798.	1.1	56
3	Green and red high-silica luminous glass suitable for near- ultraviolet excitation. Optics Express, 2009, 17, 6688.	3.4	46
4	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
5	Dynamics of Proton Transfer in the Sol-Gel-Derived P ₂ O ₅ -SiO ₂ Glasses. Journal of Physical Chemistry B, 2001, 105, 4653-4656.	2.6	44
6	Remarkable High Proton Conducting P ₂ O ₅ -SiO ₂ 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
7	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
8	Leaching behavior of CRT funnel glass. Journal of Hazardous Materials, 2010, 184, 58-64.	12.4	36
9	Spectroscopic Properties of Nd ³⁺ -Doped High Silica Glass Prepared by Sintering Porous Glass. Journal of Rare Earths, 2006, 24, 765-770.	4.8	32
10	Massive red shift of Ce ³⁺ in Y ₃ Al ₅ O ₁₂ incorporating super-high content of Ce. RSC Advances, 2020, 10, 12535-12546.	3.6	32
11	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
12	Extraction of heavy metal ions from waste colored glass through phase separation. Waste Management, 2006, 26, 1017-1023.	7.4	30
13	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
14	Blue emission from Eu ²⁺ -doped high silica glass by near-infrared femtosecond laser irradiation. Journal of Applied Physics, 2008, 103, 023108.	2.5	25
15	Colorless Transparent Fluorescence Material at the VUV Excitation: The Leached Sintered Glass with Impregnation of Tb ³⁺ Ions. Chemistry Letters, 2005, 34, 1176-1177.	1.3	21
16	Tb ³⁺ -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
17	Preparation and spectroscopic properties of Er ³⁺ -doped high silica glass fabricated by sintering nanoporous glass. Materials Letters, 2006, 60, 1987-1989.	2.6	19
18	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

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19	Synthesis and improved emission characteristics of BCNO@silica composites. Journal of Materials Chemistry C, 2014, 2, 622-625.	5.5	19
20	A silver-containing halogen-free inorganic photochromic glass. Chemical Communications, 2001, , 2090-2091.	4.1	17
21	Recovery of LaPO ₄ :Ce,Tb from waste phosphors using high-gradient magnetic separation. Waste Management, 2018, 79, 164-168.	7.4	16
22	Formation of CuCl ultrafine particles in silica glass by ion implantation. Journal of Non-Crystalline Solids, 1994, 178, 155-159.	3.1	15
23	Chemical behavior of platinum-group metals in oxide glasses. Journal of Non-Crystalline Solids, 1997, 222, 304-309.	3.1	15
24	Synthesis of new transparent borate-based BaF ₂ nanocrystallized glass by formation of nucleation sites induced by rare earth ions. Journal of the European Ceramic Society, 2019, 39, 1735-1739.	5.7	15
25	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
26	Scintillation and VUV-excited photoluminescence of europium-doped BaF ₂ ·Al ₂ O ₃ ·B ₂ O ₃ glasses. Journal of Materials Science: Materials in Electronics, 2018, 29, 11824-11829.	2.2	14
27	Structural investigation on implanted copper ions in silica glass by XAFS spectroscopy. Journal of Non-Crystalline Solids, 1998, 238, 143-151.	3.1	12
28	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
29	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
30	Preparation and Fluorescent Property of Eu-Doped High Silica Glasses. Journal of Rare Earths, 2006, 24, 191-195.	4.8	9
31	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
32	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
33	Effect of Mg ²⁺ and fluorine on the network and highly efficient photoluminescence of Eu ³⁺ ion in MgF ₂ ·BaO·B ₂ O ₃ glasses. Journal of the American Ceramic Society, 2019, 102, 2531-2541.	3.8	9
34	Efficient NIR-to-Visible Upconversion of Surface-Modified PbS Quantum Dots for Photovoltaic Devices. ACS Applied Nano Materials, 2021, 4, 9680-9688.	5.0	9
35	Preparation and photoluminescence properties of Vycor glasses impregnated with Tb ³⁺ and Ce ³⁺ (or) Tj ETQq1 1 0,784314 rgBT / Overl	4.0	8
36	¹¹ B· ¹¹ B Two-dimensional Correlation Nuclear Magnetic Resonance on Sodium Borosilicate Glass. Chemistry Letters, 2010, 39, 32-33.	1.3	8

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37	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
38	Blue Green Emission From a Cu ⁺ -Doped Transparent Material Prepared by Sintering Porous Glass. <i>IEEE Photonics Technology Letters</i> , 2008, 20, 1390-1392.	2.5	6
39	Highly efficient red-emitting BaMgBO ₃ F:Eu ³⁺ ,R+(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
40	Structural designing of Zn ₂ SiO ₄ :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
41	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
42	Leaching behavior of cathode ray tube (CRT) glasses. <i>Journal of the Ceramic Society of Japan</i> , 2014, 122, 1020-1027.	1.1	2
43	Red and green upconversion luminescence in Eu ³⁺ and Tb ³⁺ doped high-silica glass via multiphoton absorption of 800 nm femtosecond laser irradiation. <i>Materials Research Express</i> , 2018, 5, 085202.	1.6	2
44	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
45	Introductory Investigation on Leaching Test of Cathode-Ray Tube Glass. <i>Journal of MMIJ</i> , 2011, 127, 577-583.	0.3	1
46	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
47	Pattern transfer of nanostructures onto glass using nanoimprint films. <i>Materials Letters</i> , 2013, 91, 84-87.	2.6	0
48	Stabilization of Metastable Nano-Size \hat{I}^2 -Zn ₂ SiO ₄ :Mn Emitting Yellow Luminescence in Silica Glass. <i>Materials Science Forum</i> , 2017, 886, 102-107.	0.3	0
49	Reducing Tb, Eu in Phosphors used for Energy Efficient Lighting. <i>Journal of the Institute of Electrical Engineers of Japan</i> , 2012, 132, 746-749.	0.0	0
50	The State of Dy Incorporated in SrAl ₂ O ₄ Crystals by Low-temperature Annealing and Its Photoluminescence and Afterglow Properties. <i>Chemistry Letters</i> , 2022, 51, 197-200.	1.3	0