Shin-ichi Todoroki

List of Publications by Year
in descending order

97 papers	2,418 citations	257450 24 h-index	214800 47 g-index
100 all docs	100 docs citations	100 times ranked	1734 citing authors

#	Article	IF	Citations
1	Weatherability improvement of strain imaging sheet to use in real field for infrastructure inspection technology. , 2019, , .		0
2	IoT-powered remote sensing system and portable tools for real-time evaluation of strain imaging sheets affixed to old outdoor structures. , 2019, , .		0
3	Smart photonic coating for civil engineering field: for a future inspection technology on concrete bridge. Proceedings of SPIE, 2017, , .	0.8	7
4	Plastic optical fiber fuse and its impact on sensing applications. Proceedings of SPIE, 2017, , .	0.8	0
5	Quantitative evaluation of fiber fuse initiation with exposure to arc discharge provided by a fusion splicer. Scientific Reports, 2016, 6, 25366.	3.3	11
6	Quantitative Evaluation of Fiber Fuse Initiation Probability in Typical Single-mode Fibers. , 2015, , .		5
7	Propagation mechanism of polymer optical fiber fuse. Scientific Reports, 2015, 4, 4800.	3.3	22
8	Observation of polymer optical fiber fuse. Applied Physics Letters, 2014, 104, 043302.	3.3	41
9	First observation of fiber fuse phenomenon in polymer optical fibers. , 2014, , .		0
10	Fiber Fuse. NIMS Monographs, 2014, , .	0.3	22
11	Silica Glass Optical Fiber and Fiber Fuse. NIMS Monographs, 2014, , 1-16.	0.3	2
12	Periodic Void Formation. NIMS Monographs, 2014, , 25-35.	0.3	0
13	Delayed Response of Silica Melt to Pump Modulation. NIMS Monographs, 2014, , 37-48.	0.3	0
14	Fiber Fuse Propagation Modes. NIMS Monographs, 2014, , 17-24.	0.3	0
15	Fiber Fuse Propagation Modes in Typical Single-mode Fibers. , 2013, , .		9
16	Partially Self-pumped Fiber Fuse Propagation through a White Tight-buffered Single-mode Optical Fiber. , 2012, , .		3
17	Self-archiving as researchers' outreach activity. Journal of Information Processing and Management, 2012, 55, 79-86.	0.0	0
18	Threshold power reduction of fiber fuse propagation through a white tight-buffered single-mode optical fiber. IEICE Electronics Express, 2011, 8, 1978-1982.	0.8	9

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19	Industrial mass-production of mesoporous silica spherical particles by a spray-drying process: investigation of synthetic conditions. Journal of the Ceramic Society of Japan, 2009, 117, 198-202.	1.1	18
20	Implementation and outlook of a new repository system at the National Institute of Materials Science. Journal of Information Processing and Management, 2009, 51, 888-901.	0.0	1
21	Fabrication of Hierarchically Porous Spherical Particles by Assembling Mesoporous Silica Nanoparticles via Spray Drying. Journal of Nanoscience and Nanotechnology, 2008, 8, 3101-3105.	0.9	22
22	Spherical Mesoporous Silica Particles with Titanium Dioxide Nanoparticles by an Aerosol-assisted Coassembly. Chemistry Letters, 2008, 37, 72-73.	1.3	18
23	In Situ Observation of Modulated Light Emission of Fiber Fuse Synchronized with Void Train over Hetero-Core Splice Point. PLoS ONE, 2008, 3, e3276.	2.5	8
24	Two Topics on Optical Fiber with Holes : Holey Fiber and Fiber Fuse. Journal of Fiber Science and Technology, 2008, 64, P.318-P.321.	0.0	0
25	Advanced approaches to functional glasses. Journal of Non-Crystalline Solids, 2006, 352, 632-645.	3.1	12
26	Heat-Induced Breakage of an Optical Circuit at a TeO2 Glass Bridge Linking Silica Glass Fibers. Journal of the Ceramic Society of Japan, 2006, 114, 709-712.	1.3	0
27	<title>In-situ observation of fiber-fuse ignition</title>. , 2006, , .		3
28	<title>Ultrahigh-speed videography of fiber fuse propogation: a tool for studying void formation</title>. , 2006, , .		1
29	Blog-based research notebook: Personal informatics workbench for high-throughput experimentation. Applied Surface Science, 2006, 252, 2640-2645.	6.1	16
30	Combinatorial approach to new glasses. Applied Surface Science, 2006, 252, 2450-2455.	6.1	3
31	Refractive Index Reduction at the Surface of Co/Cu-Doped Silicate Glasses Induced by Femto-Second Laser Irradiation. Journal of the Ceramic Society of Japan, 2005, 113, 308-311.	1.3	0
32	In-SituObservation of Fiber-Fuse Propagation. Japanese Journal of Applied Physics, 2005, 44, 4022-4024.	1.5	32
33	Object-oriented virtual sample library: a container of multi-dimensional data for acquisition, visualization and sharing. Measurement Science and Technology, 2005, 16, 285-291.	2.6	0
34	Origin of periodic void formation during fiber fuse. Optics Express, 2005, 13, 6381.	3.4	72
35	Transient propagation mode of fiber fuse leaving no voids. Optics Express, 2005, 13, 9248.	3.4	22
36	Animation of fiber fuse damage, demonstrating periodic void formation. Optics Letters, 2005, 30, 2551.	3.3	21

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37	Effect of Si addition on In2O3 crystallization in soda-boro-aluminosilicate glass. Journal of Non-Crystalline Solids, 2005, 351, 1701-1704.	3.1	4
38	Observation of Blowing out in Low Loss Passive Optical Fuse Formed in Silica Glass Optical Fiber Circuit. Japanese Journal of Applied Physics, 2004, 43, L728-L730.	1.5	3
39	Optical Fuse by Carbon-Coated TeO2Glass Segment Inserted in Silica Glass Optical Fiber Circuit. Japanese Journal of Applied Physics, 2004, 43, L256-L257.	1.5	9
40	Combinatorial fluorescence lifetime measuring system for developing Er-doped transparent glass ceramics. Applied Surface Science, 2004, 223, 39-43.	6.1	8
41	Combinatorial glass research system. Applied Surface Science, 2004, 223, 233-237.	6.1	8
42	Optimization of host glass composition to make soda borosilicate glasses doped with reduced rare earth ions. Applied Surface Science, 2004, 223, 238-240.	6.1	2
43	Localized hyperpolarizability approach to the origin of nonlinear optical properties inTeO2-based materials. Physical Review B, 2004, 70, .	3.2	43
44	Non-linear optical properties of TeO2-based glasses: ab initio static finite-field and time-dependent calculations. Journal of Non-Crystalline Solids, 2004, 345-346, 730-733.	3.1	17
45	Fabrication and characteristics of nanostructures on glass by Al anodization and electrodeposition. Electrochimica Acta, 2003, 48, 3147-3153.	5.2	63
46	Fabrication of oxide nanostructures on glass by aluminum anodization and solâ€“gel process. Surface and Coatings Technology, 2003, 169-170, 190-194.	4.8	22
47	Investigation of glass formation and color properties in the P2O5â€“TeO2â€“ZnO system. Journal of Non-Crystalline Solids, 2003, 324, 58-66.	3.1	42
48	Oxyfluoride tellurite glasses doped by erbium: thermal analysis, structural organization and spectral properties. Journal of Non-Crystalline Solids, 2003, 325, 85-102.	3.1	147
49	Spectral properties of Er 3+ doped oxyfluoride tellurite glasses. Journal of Non-Crystalline Solids, 2003, 326-327, 359-363.	3.1	38
50	Low-loss optical coupling structure between two ends of silica glass optical fibers by inserting TeO2 melt. Journal of Non-Crystalline Solids, 2003, 328, 237-240.	3.1	3
51	Management of Combinatorially Acquired Multi-dimensional Data through Object-Oriented Virtual Sample Library. Materials Research Society Symposia Proceedings, 2003, 804, 205.	0.1	0
52	Glass Formation and Reddish Coloring Properties in Zinc Phosphotellurite Glass.. Materials Research Society Symposia Proceedings, 2002, 754, 1.	0.1	1
53	<I>In Situ</I> High-Temperature X-ray Observations of Crystallization of Zinctellurite Glass. Materials Transactions, 2002, 43, 355-358.	1.2	7
54	Special Issue Ceramics Integration. Formation of Optical Coupling Structure between Two Ends of Silica Glass Optical Fibers by Inserting Tellurite Glass Melt.. Journal of the Ceramic Society of Japan, 2002, 110, 476-478.	1.3	8

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55	Synthesis and Characterization of Titania Nanostructures on Glass by Al Anodization and Solâ˜Gel Process. Chemistry of Materials, 2002, 14, 266-272.	6.7	133
56	Formation and Microstructures of Anodic Alumina Films from Aluminum Sputtered on Glass Substrate. Journal of the Electrochemical Society, 2002, 149, B321.	2.9	144
57	The apparatus for automatic batch melting in the crucibles. Applied Surface Science, 2002, 189, 234-240.	6.1	9
58	Combinatorial evaluation system for thermal properties of glass materials using a vertical furnace with temperature gradient. Applied Surface Science, 2002, 189, 241-244.	6.1	15
59	Combinatorial methodologies for determination of glass-forming region. Applied Surface Science, 2002, 189, 327-332.	6.1	7
60	Fabrication and Characteristics of Ordered Ni Nanostructures on Glass by Anodization and Direct Current Electrodeposition. Chemistry of Materials, 2002, 14, 4595-4602.	6.7	128
61	Development of the Combinatorial Glass Formation Tester. Materials Research Society Symposia Proceedings, 2001, 700, 661.	0.1	1
62	Rapid and Quantitative Determination of Crystallization Tendency of Zinc Tellurite Glass Melt by Using Temperature-Gradient Furnace. Materials Research Society Symposia Proceedings, 2001, 700, 671.	0.1	1
63	In situ high-temperature X-ray observation of crystallization during the fabrication of non-silica(20ZnO 80TeO2) glass-preform of optical devices.. Journal of Advanced Science, 2001, 13, 367-370.	0.1	0
64	Viscosity of silica core optical fiber. Journal of Non-Crystalline Solids, 1999, 244, 232-237.	3.1	34
65	Evaluation of Optical Characteristics of Faraday Glass Multilayer Films.. Journal of the Ceramic Society of Japan, 1999, 107, 872-874.	1.3	0
66	Optical Properties of Na2Oâ€“MgOâ€“SiO2Optical Fiber. Optical Fiber Technology, 1998, 4, 328-337.	2.7	7
67	Rayleigh scattering of silica core optical fiber after heat treatment. Applied Optics, 1998, 37, 7708.	2.1	26
68	Rayleigh Scattering of Silica Glass and Silica Fibers with Heat Treatment. Japanese Journal of Applied Physics, 1998, 37, 56.	1.5	7
69	Rayleigh Scattering and Fictive Temperature in VAD Silica Glass with Heat Treatment. Journal of the Ceramic Society of Japan, 1997, 105, 377-380.	1.3	6
70	Optical properties of GeO_2 glass and optical fibers. Applied Optics, 1997, 36, 6809.	2.1	59
71	Refractive index and material dispersions of multi-component oxide glasses. Journal of Non-Crystalline Solids, 1997, 210, 155-162.	3.1	50
72	Rayleigh scattering in silica glass with heat treatment. Journal of Non-Crystalline Solids, 1997, 220, 178-186.	3.1	21

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73	Refractive Index Dispersion of Sodium Magnesium Silicate Glasses for Ultralowâ€Loss Fibers. Journal of the American Ceramic Society, 1997, 80, 313-316.	3.8	8
74	Optical properties in ternary germanate glasses. Journal of Non-Crystalline Solids, 1996, 196, 58-62.	3.1	5
75	Evaluation of Critical Cooling Rate for 30Na₂Oâ‹…10MgOâ‹…60SiO₂ Glass Based on Viscosity. Journal of the Ceramic Society of Japan, 1996, 104, 405-408.	1.3	4
76	Sodium Magnesium Silicate Oxyfluoride Glass with Low Rayleigh Scattering. Journal of the Ceramic Society of Japan, 1996, 104, 808-811.	1.3	5
77	Rayleigh Scattering in Silica Glasses. Journal of the American Ceramic Society, 1996, 79, 2821-2824.	3.8	20
78	Effect of F-Doping on Optical and Thermal Properties of Soda Magnesium Silicate Glasses for Ultralow-Loss Fibers. Japanese Journal of Applied Physics, 1996, 35, 5374-5378.	1.5	3
79	Alkali Magnesium/Zinc Silicate Glasses with Low Rayleigh Scattering. Journal of the American Ceramic Society, 1995, 78, 2566-2568.	3.8	23
80	Evaluation of Optical Glasses for Low-Loss Fibers: Optical Attenuation and Fiber Drawing Ability. Japanese Journal of Applied Physics, 1995, 34, 3128-3133.	1.5	9
81	Light Scattering Properties in Ternary Germanate Glasses. Japanese Journal of Applied Physics, 1995, 34, 145-150.	1.5	25
82	Refractive Index Dispersion in Ternary Germanate Glasses. Japanese Journal of Applied Physics, 1995, 34, 5615-5620.	1.5	8
83	Origin of inhomogeneous linewidth of Eu3+ fluorescence in phosphate and borophosphate glasses. Journal of Non-Crystalline Solids, 1994, 175, 263-269.	3.1	17
84	Room temperature persistent spectral hole burning of Sm2+ in fluorohafnate glasses. Journal of Luminescence, 1993, 55, 217-219.	3.1	41
85	A study of the local structure around Eu3+ ions in oxide glasses using MÃ¶ssbauer spectroscopy. Nuclear Instruments & Methods in Physics Research B, 1993, 76, 76-77.	1.4	7
86	Room-temperature persistent hole burning of Sm^2+ in oxide glasses. Optics Letters, 1993, 18, 1586.	3.3	170
87	High temperature persistent spectral hole burning of Sm2+ in fluorohafnate glasses. Journal of Non-Crystalline Solids, 1993, 152, 267-269.	3.1	32
88	Phonon sideband spectra and local structure around Eu3+ ions in sodium germanate glasses. Journal of Alloys and Compounds, 1993, 193, 207-209.	5.5	8
89	Relation between the Î©6intensity parameter of Er3+ions and the151Eu isomer shift in oxide glasses. Journal of Applied Physics, 1993, 73, 8451-8454.	2.5	212
90	Phonon Sideband Spectra and Local Structure around Eu³⁺ Ions in Aluminosilicate Glasses. Journal of the Ceramic Society of Japan, 1993, 101, 1065-1067.	1.3	18

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91	Origin of inhomogeneous linewidth of Eu3+fluorescence in several oxide glasses. Journal of Applied Physics, 1992, 72, 5853-5860.	2.5	61
92	CW room temperature upconversion lasing in Er3+-doped fluoride glass fiber. Journal of Non-Crystalline Solids, 1992, 143, 40-45.	3.1	50
93	Local structure around rare-earth ions in indium- and lead-based fluoride glasses with high upconversion efficiency. Journal of Non-Crystalline Solids, 1992, 143, 46-51.	3.1	54
94	Fluorescence Properties of Eu3+ Ions Doped in Several Oxide Glasses.. Zairyo/Journal of the Society of Materials Science, Japan, 1992, 41, 583-587.	0.2	3
95	Phonon sideband spectra and local structure around Eu3+ ions in sodium silicate glasses. Journal of Non-Crystalline Solids, 1991, 136, 213-218.	3.1	63
96	Phonon sideband of Eu3+ in sodium borate glasses. Journal of Non-Crystalline Solids, 1990, 122, 59-65.	3.1	108
97	Fiber Fuse Propagation Behavior. , 0, , .		10