

Hiroshi Yamada

List of Publications by Year in descending order

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99
papers

3,611
citations

136885

32
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101
all docs

101
docs citations

101
times ranked

2514
citing authors

#	ARTICLE	IF	CITATIONS
1	Electro-Mechano-Optical Conversions in Pr ³⁺ -Doped BaTiO ₃ -CaTiO ₃ Ceramics. <i>Advanced Materials</i> , 2005, 17, 1254-1258.	11.1	343
2	Observation of Charge Stripes in Cupric Oxide. <i>Physical Review Letters</i> , 2000, 85, 5170-5173.	2.9	210
3	Strong elasticoluminescence from monoclinic-structure SrAl ₂ O ₄ . <i>Applied Physics Letters</i> , 2004, 84, 3040-3042.	1.5	174
4	Giant negative thermal expansion in magnetic nanocrystals. <i>Nature Nanotechnology</i> , 2008, 3, 724-726.	15.6	140
5	Large electrostriction near the solubility limit in BaTiO ₃ -CaTiO ₃ ceramics. <i>Applied Physics Letters</i> , 2005, 86, 022905.	1.5	138
6	An intense elastico-mechanoluminescence material CaZnOS:Mn ²⁺ for sensing and imaging multiple mechanical stresses. <i>Optics Express</i> , 2013, 21, 12976.	1.7	134
7	Effects of deposition conditions on the ferroelectric properties of (Al _{1-x} Sc _x)N thin films. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	127
8	Luminescence induced by elastic deformation of ZnS:Mn nanoparticles. <i>Journal of Luminescence</i> , 2010, 130, 442-450.	1.5	111
9	Strong reddish-orange light emission from stress-activated Sr _{n+1} Sn _n O _{3n+1} :Sm ³⁺ (n=1, 2, 3) with perovskite-related structures. <i>Applied Physics Letters</i> , 2012, 101, 091113.	1.5	102
10	Ultrasonic wave induced mechanoluminescence and its application for photocatalysis as ubiquitous light source. <i>Catalysis Today</i> , 2013, 201, 203-208.	2.2	102
11	Unconventional magnetic transitions in the mineral clinoatacamite Cu ₂ Cl(OH) ₃ . <i>Physical Review B</i> , 2005, 71, .	1.1	97
12	Ultraviolet mechanoluminescence from SrAl ₂ O ₄ :Ce and SrAl ₂ O ₄ :Ce,Ho. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	79
13	Mechanoluminescent light source for a fluorescent probe molecule. <i>Chemical Communications</i> , 2011, 47, 8034.	2.2	75
14	Antiferromagnetic transitions in polymorphous minerals of the natural cuprates atacamite and botallackite Cu ₂ Cl(OH) ₃ . <i>Physical Review B</i> , 2005, 71, .	1.1	70
15	Dynamic visualization of stress distribution on metal by mechanoluminescence images. <i>Journal of Visualization</i> , 2008, 11, 329-335.	1.1	68
16	Blue Light Emission from Stress-Activated Ca ₃ Al ₂ O ₇ :Eu. <i>Journal of the Electrochemical Society</i> , 2008, 155, J128.	1.3	68
17	Development of mechanoluminescent micro-particles Ca ₂ MgSi ₂ O ₇ :Eu,Dy and their application in sensors. <i>Thin Solid Films</i> , 2009, 518, 610-613.	0.8	53
18	Development of new elasticoluminescent material SrMg ₂ (PO ₄) ₂ :Eu. <i>Journal of Luminescence</i> , 2012, 132, 526-530.	1.5	51

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19	Stress-Induced Mechanoluminescence in SrCaMgSi ₂ O ₇ :Eu. Electrochemical and Solid-State Letters, 2007, 10, J129.	2.2	49
20	Observation of Elasticoluminescence from CaAl ₂ Si ₂ O ₈ :Eu ²⁺ and Its Water Resistance Behavior. Journal of the Electrochemical Society, 2008, 155, J63.	1.3	47
21	Long-persistent luminescence in the near-infrared from Nd ³⁺ -doped Sr ₂ SnO ₄ for in vivo optical imaging. Japanese Journal of Applied Physics, 2014, 53, 092403.	0.8	47
22	Strong Elastico-Mechanoluminescence in Diphase (Ba,Ca)TiO ₃ :Pr ³⁺ with Self-Assembled Sandwich Architectures. Journal of the Electrochemical Society, 2010, 157, G269.	1.3	46
23	Purple photochromism in Sr ₂ SnO ₄ :Eu ³⁺ with layered perovskite-related structure. Applied Physics Letters, 2013, 102, .	1.5	43
24	BLUE LIGHT EMISSION FROM STRESS-ACTIVATED SR ₂ MgSi ₂ O ₇ :Eu. International Journal of Modern Physics B, 2009, 23, 1028-1033.	1.0	42
25	Lattice distortion and magnetolattice coupling in CuO. Physical Review B, 2004, 69, .	1.1	41
26	Green Mechanoluminescence of Ca ₂ MgSi ₂ O ₇ :Eu and Ca ₂ MgSi ₂ O ₇ :Eu,Dy. Journal of the Electrochemical Society, 2008, 155, J55.	1.3	41
27	Detection of stress distribution using Ca ₂ MgSi ₂ O ₇ :Eu,Dy microparticles. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 2872-2875.	1.3	41
28	Enhancement of Mechanoluminescence in CaAl ₂ Si ₂ O ₈ :Eu ²⁺ by Partial Sr ²⁺ Substitution for Ca ²⁺ . Journal of the Electrochemical Society, 2010, 157, J50.	1.3	39
29	Enhancement of Adhesion and Triboluminescent Properties of SrAl ₂ O ₄ :Eu ²⁺ Films Fabricated by RF Magnetron Sputtering and Postannealing Techniques. Journal of the Electrochemical Society, 2007, 154, J348.	1.3	36
30	One-Step Synthesis of Luminescent Nanoparticles of Complex Oxide, Strontium Aluminate. Journal of the American Ceramic Society, 2007, 90, 2273-2275.	1.9	36
31	Mechanoluminescence of Europium-Doped SrAMgSi ₂ O ₇ (A=Ca, Sr, Ba). Japanese Journal of Applied Physics, 2009, 48, 04C109.	0.8	35
32	Property of Highly Oriented SrAl ₂ O ₄ :Eu Film on Quartz Glass Substrates and Its Potential Application in Stress Sensor. Journal of the Electrochemical Society, 2009, 156, J249.	1.3	35
33	Direct visualization of ultrasonic power distribution using mechanoluminescent film. Ultrasonics Sonochemistry, 2011, 18, 436-439.	3.8	33
34	First-principles calculations of spontaneous polarization in ScAlN. Journal of Applied Physics, 2021, 130, .	1.1	32
35	Evidence of Charge Stripes, Charge-Spin-Orbital Coupling and Phase Transition in a Simple Copper Oxide CuO. Journal of the Physical Society of Japan, 2001, 70, 1054-1063.	0.7	31
36	Enhancement of afterglow in SrAl ₂ O ₄ :Eu ²⁺ long-lasting phosphor with swift heavy ion irradiation. RSC Advances, 2012, 2, 328-332.	1.7	31

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37	First-Principles Study of Piezoelectric Properties and Bonding Analysis in (Mg, X, Al)N Solid Solutions (X = Nb, Ti, Zr, Hf). ACS Omega, 2019, 4, 15081-15086.	1.6	31
38	Electro-Mechano-Optical Luminescence from CaYAl ₃ O ₇ :Ce. Electrochemical and Solid-State Letters, 2011, 14, J76.	2.2	30
39	Thickness scaling of (Al _{0.8} Sc _{0.2})N films with remanent polarization beyond 100 Å ² around 10 nm in thickness. Applied Physics Express, 2021, 14, 105501.	1.1	30
40	Photocell System Driven by Mechanoluminescence. Japanese Journal of Applied Physics, 2007, 46, 2385-2388.	0.8	29
41	Near-infrared luminescence from double-perovskite Sr ₃ Sn ₂ O ₇ :Nd ³⁺ : A new class of probe for in vivo imaging in the second optical window of biological tissue. Journal of the Ceramic Society of Japan, 2017, 125, 591-595.	0.5	28
42	Enhancement of Photoluminescence in CaTiO ₃ :Pr ³⁺ by Ba and Sr Substitution for Ca. Japanese Journal of Applied Physics, 2005, 44, L912-L914.	0.8	27
43	Novel Structural Behavior of Strontium Aluminate Doped with Europium. Journal of the Electrochemical Society, 2004, 151, H97.	1.3	26
44	Water-Resistant Surface-Coating on Europium-Doped Strontium Aluminate Nanoparticles. Journal of the Electrochemical Society, 2007, 154, J77.	1.3	23
45	Phase transformation behavior and pseudoelastic deformation in SrAl ₂ O ₄ . Journal of Alloys and Compounds, 2013, 577, S507-S516.	2.8	22
46	Anisotropic lattice behavior in elasticoluminescent material SrAl ₂ O ₄ :Eu ²⁺ . Applied Physics Letters, 2008, 92, .	1.5	21
47	Polarity Inversion of Aluminum Nitride Thin Films by using Si and MgSi Dopants. Scientific Reports, 2020, 10, 4369.	1.6	21
48	Effect of hole doping in Li _x Cu _{1-x} O. Physical Review B, 2003, 67, .	1.1	20
49	Enhancement of impact-induced mechanoluminescence by swift heavy ion irradiation. Applied Physics Letters, 2012, 100, .	1.5	20
50	A Novel Technique for Viewing Stress Distribution with Mechanoluminescence Materials. Key Engineering Materials, 0, 368-372, 1401-1404.	0.4	19
51	Hybrid material consisting of mechanoluminescent material and TiO ₂ photocatalyst. Thin Solid Films, 2009, 518, 473-476.	0.8	19
52	Multi color density photochromism in reduced tridymite BaMgSiO ₄ by wavelength of irradiation light. Journal of the Ceramic Society of Japan, 2011, 119, 105-109.	0.5	19
53	Fast suppression of antiferromagnetism in Cu _{1-x} Li _x O. Physical Review B, 2004, 69, .	1.1	17
54	Electrostrictive Properties of Pr-Doped BaTiO ₃ –CaTiO ₃ Ceramics. Japanese Journal of Applied Physics, 2006, 45, 813-816.	0.8	17

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55	Studies on AC Electroluminescence Device Made of BaTiO ₃ CaTiO ₃ :Pr ³⁺ Diphase Ceramics. Applied Physics Express, 2010, 3, 022601.	1.1	17
56	Photochromism enhancement in reduced tridymite BaMgSiO ₄ by Fe-doping. Journal of the Ceramic Society of Japan, 2011, 119, 338-341.	0.5	17
57	Mg and Ti codoping effect on the piezoelectric response of aluminum nitride thin films. Scripta Materialia, 2019, 159, 9-12.	2.6	17
58	Increase in the piezoelectric response of scandium-doped gallium nitride thin films sputtered using a metal interlayer for piezo MEMS. Applied Physics Letters, 2019, 114, .	1.5	17
59	Lattice Deformation in Thermally Degraded Barium Magnesium Aluminate Phosphor. Journal of the Electrochemical Society, 2004, 151, E349.	1.3	15
60	Demonstration of ferroelectricity in ScGaN thin film using sputtering method. Applied Physics Letters, 2021, 119, .	1.5	15
61	Observation of orientational disorder in the hexagonal stuffed tridymite Sr _{0.864} Eu _{0.136} Al ₂ O ₄ by the maximum-entropy method. Journal of Applied Crystallography, 2004, 37, 698-702.	1.9	14
62	<i>Ab initio</i> calculations of the mechanical properties of SrAl ₂ O ₄ stuffed tridymite. Journal of Applied Physics, 2007, 102, .	1.1	14
63	Synthesis and Electric Property of CeAlO ₃ Ceramics. Japanese Journal of Applied Physics, 2005, 44, 961-963.	0.8	13
64	Triboluminescence Properties of Highly Oriented SrAl ₂ O ₄ :Eu Films on Inconel 600 Substrate. Electrochemical and Solid-State Letters, 2008, 11, J27.	2.2	13
65	Strong Mechanoluminescence from Oxynitridosilicate Phosphors. IOP Conference Series: Materials Science and Engineering, 2011, 18, 212001.	0.3	13
66	Preparation of YbAlN piezoelectric thin film by sputtering and influence of Yb concentration on properties and crystal structure. Ceramics International, 2021, 47, 16029-16036.	2.3	13
67	Determination of the Crystal Structure of Spherical Particles of SrAl ₂ O ₄ :Eu Prepared by the Spray Method. Journal of the Electrochemical Society, 2003, 150, E251.	1.3	12
68	Effects of different divalent cations in mTi-based codopants (m = Mg or Zn) on the piezoelectric properties of AlN thin films. Ceramics International, 2020, 46, 4015-4019.	2.3	12
69	Dynamic Visualization of Stress Distribution by Mechanoluminescence Image. Key Engineering Materials, 0, 388, 265-268.	0.4	11
70	Electronic structure of Eu ²⁺ -doped SrAl ₂ O ₄ using modified Becke-Johnson exchange potential. Solid State Communications, 2014, 186, 46-49.	0.9	11
71	Enhancement of crystal anisotropy and ferroelectricity by decreasing thickness in (Al,Sc)N films. Journal of the Ceramic Society of Japan, 2022, 130, 436-441.	0.5	11
72	Triboluminescence of SrAl ₂ O ₄ :Eu Film with Strong Adhesion Fabricated by a Combination of RF Magnetron Sputtering and Post-Annealing Treatment. Key Engineering Materials, 2008, 368-372, 1362-1365.	0.4	10

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73	Effect of Mg addition on the physical properties of aluminum nitride. <i>Materials Letters</i> , 2018, 219, 247-250.	1.3	10
74	Determination of Eu Sites in Highly Europium-Doped Strontium Aluminate Phosphor Using Synchrotron X-Ray Powder Diffraction Analysis. <i>Journal of the Electrochemical Society</i> , 2008, 155, F139.	1.3	8
75	Preparation and characterization of fiber-textured SrAl ₂ O ₄ :Eu films grown using a homo-buffer layer. <i>Journal of Crystal Growth</i> , 2008, 310, 2885-2889.	0.7	7
76	Beam profile indicator for swift heavy ions using phosphor afterglow. <i>AIP Advances</i> , 2012, 2, .	0.6	7
77	New Mechanoluminescent Materials with Various Colors. <i>Key Engineering Materials</i> , 0, 388, 305-308.	0.4	6
78	Enhancement of Mechanoluminescence from ZnS:Mn,Te by Wet Process. <i>Key Engineering Materials</i> , 0, 388, 301-304.	0.4	6
79	Impact of Deposition Temperature on Crystal Structure and Ferroelectric Properties of (Al _{1-x} Sc _x)N Films Prepared by Sputtering Method. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2100302.	0.8	6
80	Quality Improvement of SrAl ₂ O ₄ :Eu ²⁺ Film on Quartz Glass Through a Two-Step Sputtering Process. <i>Journal of the Electrochemical Society</i> , 2007, 154, J341.	1.3	5
81	Multifunctional Performance of Europium-Doped Feldspar Ceramics. <i>Advanced Materials Research</i> , 0, 47-50, 209-211.	0.3	5
82	Molecular orbital calculations of Eu-doped SrAl ₂ O ₄ clusters. <i>Solid State Communications</i> , 2015, 206, 42-45.	0.9	5
83	Lower ferroelectric coercive field of ScGaN with equivalent remanent polarization as ScAlN. <i>Applied Physics Express</i> , 2022, 15, 081003.	1.1	5
84	Effect of Extinction on Neutron Diffraction Intensity of Silicon Single Crystals. <i>Japanese Journal of Applied Physics</i> , 1994, 33, 5107-5108.	0.8	4
85	Electrostrictive and photoluminescent properties in Pr-doped (Ba,Sr)(Ti,Al) ₃ ceramics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2006, 53, 1969-1973.	1.7	4
86	Blue-Greenish Light Emission from Stress-Activated SrCaMgSi ₂ O ₇ :Eu. <i>Key Engineering Materials</i> , 2008, 368-372, 359-362.	0.4	4
87	Characterization of Single Crystals of High-Tc Superconductor La _{2-x} Sr _x CuO ₄ . <i>Japanese Journal of Applied Physics</i> , 1993, 32, 4959-4965.	0.8	3
88	A Novel Blue-Violet Emitting Mechanoluminescent Material with Calcium Aluminosilicate. <i>Key Engineering Materials</i> , 0, 388, 277-280.	0.4	3
89	Enhancement in piezoelectric responses of AlN thin films by co-addition of Mg and Ta. <i>Materials Chemistry and Physics</i> , 2022, 276, 125394.	2.0	3
90	The structural phase transition in BaTiO ₃ in a static electric field. <i>Phase Transitions</i> , 1995, 54, 123-129.	0.6	2

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91	Fabrication of Triboluminescent Film on Inconel 600 Substrate by RF Magnetron Sputtering Method. Key Engineering Materials, 2008, 388, 153-156.	0.4	2
92	Development of A Novel Elasticoluminescent Material with Calcium Aluminosilicate. Key Engineering Materials, 0, 368-372, 352-354.	0.4	1
93	Effects of SrAl ₂ O ₄ ; Homo-Buffer Layer on SrAl ₂ O ₄ ;Eu Phosphors Film Grown on Glass by RF Sputtering. Key Engineering Materials, 0, 368-372, 1358-1361.	0.4	1
94	Triboluminescence of Highly Oriented SrAl ₂ O ₄ ;Eu Film and its Potential Role as a Stress Indicator. Key Engineering Materials, 0, 421-422, 319-322.	0.4	1
95	Enhancement of impact-induced mechanoluminescence for structure health monitoring using swift heavy ion irradiation. , 2012, , .		1
96	Strong light emission from stress-activated perovskite-related oxides. Materials Research Society Symposia Proceedings, 2013, 1492, 117-122.	0.1	1
97	Upgrade Mechanoluminescence by Sr ²⁺ Substitution in CaAl ₂ Si ₂ O ₈ : Eu ²⁺ . Key Engineering Materials, 2009, 421-422, 315-318.	0.4	0
98	Evaluation of Thermal Stress Distribution With Elasticoluminescent Materials. , 2012, , .		0
99	Photochromic properties in Eu ³⁺ doped Sr ₂ SnO ₄ . Materials Research Society Symposia Proceedings, 2013, 1492, 111-115.	0.1	0