Hitoshi Tampo

List of Publications by Year
in descending order

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123	3,126	136950	168389
papers	citations	32	53
		h-index	g-index

123	123	123	3298
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	ZnO transparent conducting films deposited by pulsed laser deposition for solar cell applications. Thin Solid Films, 2003, 431-432, 369-372.	1.8	237
2	How small amounts of Ge modify the formation pathways and crystallization of kesterites. Energy and Environmental Science, 2018, 11, 582-593.	30.8	169
3	Band-gap modified Al-doped Zn1â^'xMgxO transparent conducting films deposited by pulsed laser deposition. Applied Physics Letters, 2004, 85, 1374-1376.	3.3	131
4	Polarization-induced two-dimensional electron gases in ZnMgO/ZnO heterostructures. Applied Physics Letters, 2008, 93, .	3.3	131
5	Improvement of voltage deficit of Ge-incorporated kesterite solar cell with 12.3% conversion efficiency. Applied Physics Express, 2016, 9, 102301.	2.4	129
6	Direct Observation of Nitrogen Location in Molecular Beam Epitaxy Grown Nitrogen-Doped ZnO. Physical Review Letters, 2006, 96, 045504.	7.8	119
7	Two-dimensional electron gas in Zn polar ZnMgOâ^•ZnO heterostructures grown by radical source molecular beam epitaxy. Applied Physics Letters, 2006, 89, 132113.	3.3	118
8	Quantitative determination of optical and recombination losses in thin-film photovoltaic devices based on external quantum efficiency analysis. Journal of Applied Physics, 2016, 120, .	2.5	105
9	Ge-incorporated Cu2ZnSnSe4 thin-film solar cells with efficiency greater than 10%. Solar Energy Materials and Solar Cells, 2016, 144, 488-492.	6.2	95
10	Degenerate layers in epitaxial ZnO films grown on sapphire substrates. Applied Physics Letters, 2004, 84, 4412-4414.	3.3	65
11	Determination of crystallographic polarity of ZnO layers. Applied Physics Letters, 2005, 87, 141904.	3.3	63
12	Improved External Efficiency InGaN-Based Light-Emitting Diodes with Transparent Conductive Ga-Doped ZnO as p-Electrodes. Japanese Journal of Applied Physics, 2004, 43, L180-L182.	1.5	59
13	Improvement of ZnO TCO film growth for photovoltaic devices by reactive plasma deposition (RPD). Thin Solid Films, 2005, 480-481, 199-203.	1.8	57
14	Effect of Rapid Thermal Annealing on Al Dopedn-ZnO Films Grown by RF-Magnetron Sputtering. Japanese Journal of Applied Physics, 2005, 44, 4776-4779.	1.5	56
15	Strong excitonic transition of Zn1â^'xMgxO alloy. Applied Physics Letters, 2007, 91, .	3.3	55
16	Growth and electrical properties of ZnO thin films deposited by novel ion plating method. Thin Solid Films, 2003, 445, 274-277.	1.8	51
17	Strong photoluminescence emission from polycrystalline GaN layers grown on W, Mo, Ta, and Nb metal substrates. Applied Physics Letters, 2001, 78, 2849-2851.	3.3	49
18	Photoluminescence characterization of Zn1â^'xMgxO epitaxial thin films grown on ZnO by radical source molecular beam epitaxy. Applied Physics Letters, 2007, 90, 124104.	3.3	49

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19	Growth and characterization of coevaporated Cu2SnSe3 thin films for photovoltaic applications. Thin Solid Films, 2013, 536, 111-114.	1.8	49
20	Excitation-Power Dependence of Free Exciton Photoluminescence of Semiconductors. Japanese Journal of Applied Physics, 2005, 44, 6113-6114.	1.5	48
21	Negative thermal quenching of photoluminescence in ZnO. Physica B: Condensed Matter, 2006, 376-377, 711-714.	2.7	46
22	Formation of Hexagonal Pyramids and Pits on V-/VI-Polar and III-/II-Polar GaN/ZnO Surfaces by Wet Etching. Journal of the Electrochemical Society, 2010, 157, D60.	2.9	46
23	Dielectric functions of Cu2ZnSnSe4 and Cu2SnSe3 semiconductors. Journal of Applied Physics, 2015, 117, 015702.	2.5	40
24	Tail state formation in solar cell materials: First principles analyses of zincblende, chalcopyrite, kesterite, and hybrid perovskite crystals. Physical Review Materials, 2018, 2, .	2.4	39
25	Effect of band offset on the open circuit voltage of heterojunction CuIn1â^'xGaxSe2 solar cells. Applied Physics Letters, 2004, 85, 5607-5609.	3.3	38
26	Improvement of minority carrier lifetime and conversion efficiency by Na incorporation in Cu2ZnSnSe4 solar cells. Journal of Applied Physics, 2017, 122, .	2.5	37
27	Magnetic and optical properties of GaMnN grown by ammonia-source molecular-beam epitaxy. Journal of Crystal Growth, 2003, 252, 499-504.	1.5	36
28	Improving the Open Circuit Voltage through Surface Oxygen Plasma Treatment and 11.7% Efficient Cu₂ZnSnSe₄ Solar Cell. ACS Applied Materials & Interfaces, 2019, 11, 13319-13325.	8.0	36
29	Characterization of Zn1â^'xMgxO transparent conducting thin films fabricated by multi-cathode RF-magnetron sputtering. Thin Solid Films, 2010, 518, 2949-2952.	1.8	34
30	Physical routes for the synthesis of kesterite. JPhys Energy, 2019, 1, 042003.	5.3	34
31	Very strong photoluminescence emission from GaN grown on amorphous silica substrate by gas source MBE. Journal of Crystal Growth, 1999, 201-202, 371-375.	1.5	33
32	The effects of thermal treatments on the electrical properties of phosphorus doped ZnO layers grown by MBE. Journal of Crystal Growth, 2005, 278, 268-272.	1.5	33
33	High electron mobility Zn polar ZnMgO/ZnO heterostructures grown by molecular beam epitaxy. Journal of Crystal Growth, 2007, 301-302, 358-361.	1.5	33
34	Growth of ZnO and device applications. Applied Surface Science, 2005, 244, 504-510.	6.1	32
35	Band profiles of ZnMgO/ZnO heterostructures confirmed by Kelvin probe force microscopy. Applied Physics Letters, 2009, 94, .	3.3	32
36	Characterization of electronic structure of Cu2ZnSn(S Se1â^')4 absorber layer and CdS/Cu2ZnSn(S) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 2015, 582, 166-170.	1.8	31

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37	Very small tail state formation in Cu2ZnGeSe4. Applied Physics Letters, 2018, 113, .	3.3	28
38	Doping properties of ZnO thin films for photovoltaic devices grown by URT-IP (ion plating) method. Thin Solid Films, 2004, 451-452, 219-223.	1.8	25
39	Effects of Mo back contact thickness on the properties of CIGS solar cells. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1063-1066.	1.8	25
40	Highly Controlled Codeposition Rate of Organolead Halide Perovskite by Laser Evaporation Method. ACS Applied Materials & Interfaces, 2016, 8, 26013-26018.	8.0	25
41	Determination and interpretation of the optical constants for solar cell materials. Applied Surface Science, 2017, 421, 276-282.	6.1	24
42	Band Alignment of the CdS/Cu₂Zn(Sn_{1â€“x}Ge_x)Se₄ Heterointerface and Electronic Properties at the Cu₂Zn(Sn_{1â€“x}Ge_x)Se₄ Surface: x = 0, 0.2, and 0.4. ACS Applied Materials & Interfaces, 2019, 11, 4637-4648.	8.0	23
43	Promising characteristics of GaN layers grown on amorphous silica substrates by gas-source MBE. Journal of Crystal Growth, 1998, 189-190, 218-222.	1.5	22
44	Improved properties of polycrystalline GaN grown on silica glass substrate. Journal of Crystal Growth, 2000, 209, 387-391.	1.5	22
45	Characterization of ZnO crystals by photoluminescence spectroscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 872-875.	0.8	22
46	Photoluminescence characterization of excitonic centers in ZnO epitaxial films. Applied Physics Letters, 2005, 86, 221907.	3.3	22
47	Composition control of Cu2ZnSnSe4-based solar cells grown by coevaporation. Thin Solid Films, 2014, 551, 27-31.	1.8	21
48	Narrow-bandgap Cu2Sn1â^'xGexSe3 thin film solar cells. Materials Letters, 2015, 158, 205-207.	2.6	21
49	Cu₂ZnSnSe₄thin-film solar cells fabricated using Cu₂SnSe₃and ZnSe bilayers. Applied Physics Express, 2015, 8, 042301.	2.4	21
50	Determination of deep-level defects in Cu2ZnSn(S,Se)4 thin-films using photocapacitance method. Applied Physics Letters, 2015, 106, .	3.3	20
51	Analysis of future generation solar cells and materials. Japanese Journal of Applied Physics, 2018, 57, 04FS03.	1.5	20
52	Effect of Combined Alkali (KFâ€‰+â€‰CsF) Postâ€Deposition Treatment on Cu(InGa)Se₂ Solar Cells. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800372.	2.4	17
53	Growth of high-quality polycrystalline GaN on glass substrate by gas source molecular beam epitaxy. Journal of Crystal Growth, 2001, 227-228, 442-446.	1.5	16
54	Soft X-ray XANES of N in ZnO:N â€“ Why is doping so difficult?. Nuclear Instruments & Methods in Physics Research B, 2006, 246, 75-78.	1.4	15

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55	Optical dielectric constant inhomogeneity along the growth axis in ZnO-based transparent electrodes deposited on glass substrates. Journal of Applied Physics, 2009, 105, .	2.5	14
56	InGaN-based light-emitting diodes fabricated with transparent Ga-doped ZnO as ohmicp-contact. Physica Status Solidi A, 2004, 201, 2704-2707.	1.7	13
57	Microstructural Evolution of ZnO by Wet-Etching Using Acidic Solutions. Journal of Nanoscience and Nanotechnology, 2006, 6, 3364-3368.	0.9	13
58	Strong Photoluminescence Emission from GaN on SrTiO3. Physica Status Solidi (B): Basic Research, 1999, 216, 113-116.	1.5	12
59	Temperature induced phase transformation in coevaporated Cu2SnSe3 thin films. Materials Letters, 2014, 116, 61-63.	2.6	12
60	Study and optimization of alternative MBEâ€deposited metallic precursors for highly efficient kesterite CZTSe:Ge solar cells. Progress in Photovoltaics: Research and Applications, 2019, 27, 779-788.	8.1	12
61	Field Emission from Polycrystalline GaN Grown on Mo Substrate. Japanese Journal of Applied Physics, 2002, 41, L907-L909.	1.5	11
62	Two different features of ZnO: Transparent ZnO:Ga electrodes for InGaN-LEDs and homoepitaxial ZnO films for UV-LEDs. , 2006, 6122, 79.		10
63	A comparative study on charge carrier recombination across the junction region of Cu2ZnSn(S,Se)4 and Cu(In,Ga)Se2 thin film solar cells. AIP Advances, 2016, 6, .	1.3	10
64	Effects of low temperature buffer layer treatments on the growth of high quality ZnO films. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 888-891.	0.8	9
65	Reduced recombination in a surface-sulfurized Cu(InGa)Se₂thin-film solar cell. Japanese Journal of Applied Physics, 2018, 57, 055701.	1.5	9
66	Electronic structure of Cu₂ZnSn(S_xSe_{1â^'x})₄ surface and CdS/Cu₂ZnSn(S_xSe_{1â^'x})₄ interface. Physica Status Solidi C: Current Topics in Solid State Physics, 2017, 14, .	0.8	9
67	Tunability of the bandgap of SnS by variation of the cell volume by alloying with A.E. elements. Scientific Reports, 2022, 12, 7434.	3.3	9
68	Observation of Quantum-Dot-Like Properties in the Phase-Separated GaN-Rich GaNP. Physica Status Solidi (B): Basic Research, 1999, 216, 461-464.	1.5	8
69	Ohmic Contact to Phosphorous-Doped ZnO Using Ptâ^•Niâ^•Au for p-n Homojunction Diode. Journal of the Electrochemical Society, 2006, 153, G1047.	2.9	8
70	Two-dimensional polaron mass in ZnO quantum Hall systems. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1599-1601.	0.8	8
71	Effect of pre-annealing on Cu2ZnSnSe4 thin-film solar cells prepared from stacked Zn/Cu/Sn metal precursors. Materials Letters, 2016, 176, 78-82.	2.6	7
72	Electronic structures of Cu₂ZnSnSe₄surface and CdS/Cu₂ZnSnSe₄heterointerface. Japanese Journal of Applied Physics, 2017, 56, 065701.	1.5	7

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73	Characterization of Surface and Heterointerface of Cu 2 ZnSn 1â€“ x Ge x Se 4 for Solar Cell Applications. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900708.	2.4	7
74	Analysis for non-radiative recombination and resistance loss in chalcopyrite and kesterite solar cells. Japanese Journal of Applied Physics, 2021, 60, SBBF05.	1.5	7
75	Ammonia Source MBE Growth of Polycrystalline GaN p-n Junction. Physica Status Solidi A, 2001, 188, 605-609.	1.7	6
76	Crystallographic growth orientation of Cu(InGa)Se2films in relation to substrate material nature. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 2639-2643.	1.8	6
77	Infrared reflectionâ€“absorption spectroscopy applied to a merocyanine dye J-aggregate deposited on transparent electrodes based on zinc oxide. Thin Solid Films, 2009, 518, 462-465.	1.8	6
78	Infrared Study of Sapphire Î±-Al₂O₃ by Small-Angle Oblique-Incidence Reflectometry. Journal of the Physical Society of Japan, 2012, 81, 024709.	1.6	6
79	Analysis of Optical and Recombination Losses in Solar Cells. Springer Series in Optical Sciences, 2018, , 29-82.	0.7	6
80	Determination of crystallographic polarity of ZnO bulk crystals and epilayers. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1018-1021.	0.8	5
81	Local Structure around Dopant Site in Ga-Doped ZnO from Extended X-ray Absorption Fine Structure Measurements. Journal of the Physical Society of Japan, 2011, 80, 074602.	1.6	5
82	Improved performance in Cu2ZnSnSe4 solar cells using a sandwich-structured ZnSe/Cu2SnSe3/ZnSe precursor. Current Applied Physics, 2017, 17, 366-369.	2.4	5
83	Examination of Suitable Bandgap Grading of Cu(InGa)Se 2 Bottom Absorber Layers for Tandem Cell Application. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000658.	1.8	5
84	Strong Photoluminescence Emission from Polycrystalline GaN Grown on Metal Substrate by NH3 Source MBE. Physica Status Solidi A, 2001, 188, 601-604.	1.7	4
85	Time-resolved photoluminescence of polycrystalline GaN layers on metal substrates. Semiconductors, 2002, 36, 878-882.	0.5	4
86	Field Emission from Polycrystalline GaN Grown on Mo Substrate. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 469-473.	0.8	4
87	High-Quality Transparent Conducting Oxide Films Deposited by a Novel Ion Plating Technique. Materials Research Society Symposia Proceedings, 2003, 763, 741.	0.1	4
88	Bandgap Engineering of ZnO Transparent Conducting Films. Materials Research Society Symposia Proceedings, 2003, 763, 721.	0.1	4
89	Study of time-resolved photoluminescence in Cu₂ZnSn(S,Se)₄thin films with different Cu/Sn ratio. Japanese Journal of Applied Physics, 2015, 54, 08KC15.	1.5	4
90	Correlation between Electrical Properties and Crystalc-Axis Orientation of Zinc Oxide Transparent Conducting Films. Japanese Journal of Applied Physics, 2012, 51, 10NC16.	1.5	4

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91	Wide-gap CIGS solar cells with Zn1-yMgyO transparent conducting film. Materials Research Society Symposia Proceedings, 2005, 865, 1461.	0.1	3
92	Oblique-Incidence Infrared Reflection in Thin ZnO Films Deposited on Sapphire by Gas-Source MBE. AIP Conference Proceedings, 2007, , .	0.4	3
93	Title is missing!. Shinku/Journal of the Vacuum Society of Japan, 2007, 50, 114-117.	0.2	3
94	Band Alignment of CdS/Cu2ZnSnSe4 Heterointerface and Solar Cell Performances. MRS Advances, 2017, 2, 3157-3162.	0.9	3
95	Inorganic Semiconductors and Passivation Layers. Springer Series in Optical Sciences, 2018, , 319-426.	0.7	3
96	Ultra-thin Cadmium Sulfide Electron-transporting Layer for Planar Perovskite Solar Cell. Chemistry Letters, 2018, 47, 1350-1353.	1.3	3
97	Effect of aromatic nitrogen heterocycle treatment on the performance of perovskite solar cells. Japanese Journal of Applied Physics, 2018, 57, 08RE08.	1.5	3
98	Dominant recombination path in low-bandgap kesterite CZTSe(S) solar cells from red light induced metastability. Journal of Applied Physics, 2021, 129, .	2.5	3
99	Impacts of KF Post-Deposition Treatment on the Band Alignment of Epitaxial Cu(In,Ga)Se₂ Heterojunctions. ACS Applied Materials & Interfaces, 2022, 14, 16780-16790.	8.0	3
100	Gas source MBE growth of GaN-related novel semiconductors. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 75, 199-203.	3.5	2
101	Direct Observation of Nitrogen Location in Molecular Beam Epitaxy Grown Nitrogen-Doped ZnO. AIP Conference Proceedings, 2007, , .	0.4	2
102	Correlation between Electrical Properties and Crystal c-Axis Orientation of Zinc Oxide Transparent Conducting Films. Japanese Journal of Applied Physics, 2012, 51, 10NC16.	1.5	2
103	Study of recombination process in Cu<inf>2</inf>ZnSnS<inf>4</inf> thin film using two-wavelength excited photoluminescence. , 2014, , .		2
104	Study of Cu2ZnSn(S,Se)4Thin Films for Solar Cell Application. Journal of Physics: Conference Series, 2015, 596, 012019.	0.4	2
105	Reduced potential fluctuation in a surface sulfurized Cu(InGa)Se2. Japanese Journal of Applied Physics, 2018, 57, 085702.	1.5	2
106	Sodium incorporation effect on morphological and photovoltaic properties for Cu2ZnSnSe4 solar cells. Japanese Journal of Applied Physics, 2020, 59, SCCD06.	1.5	2
107	Local Ordering in GaN-Rich Ternary GaNP Alloys. Materials Research Society Symposia Proceedings, 2000, 618, 321.	0.1	1
108	Analysis of polycrystalline GaN grown on a glass substrate. Journal of Physics Condensed Matter, 2002, 14, 12697-12702.	1.8	1

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109	Gas source molecular-beam epitaxy growth of GaN/GaP superlattices and GaN layers on GaP(111)A substrates. Journal of Crystal Growth, 2002, 243, 283-287.	1.5	1
110	Polycrystalline GaN: Analysis of the Defects. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 409-412.	0.8	1
111	Cd-Free Wide Gap CuIn1-xGaxSe2 Solar Cells using Zn1-yMgyO Deposited by Pulsed Laser Deposition. , 2006, , .		1
112	Formation of ionic bonds between a fatty-acid Langmuirâ€“Blodgett monolayer and a zinc oxide substrate. Journal of Colloid and Interface Science, 2010, 352, 299-302.	9.4	1
113	Defect study of Cu<inf>2</inf>ZnSn(S,Se)<inf>4</inf> thin film with different Cu/Sn ratio by admittance spectroscopy. , 2014, , .		1
114	Photovoltaics of CZTS. Springer Handbooks, 2022, , 1305-1326.	0.6	1
115	Thermal processing induced structural changes in ZnO films grown on (11&2macr;0) sapphire substrates using molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 868-871.	0.8	0
116	Photoluminescence recombination centers in ZnO. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1026-1029.	0.8	0
117	An Estimate of Maximal Conversion Efficiency in Regard to Doping Concentrations and Junction Position in Cu(In,Ga)Se2 Solar Cells. , 2006, , .		0
118	Formation of two-dimensional electron gas and enhancement of electron mobility by Zn polar ZnMgO/ZnO heterostructures. , 2007, 6474, 78.		0
119	Progress in CIGS solar cell technologies. , 2008, , .		0
120	Zn1â^'xMgxO/ZnO heterostructures studied by Kelvin probe force microscopy conjunction with probe characterizer. Applied Surface Science, 2009, 256, 1180-1183.	6.1	0
121	Photocarrier recombination dynamics in Cu2ZnSn(S,Se)4 and Cu(In,Ga)Se2 studied by temperature-dependent time resolved Photoluminescence (TR-PL). , 2015, , .		0
122	Laser deposition for the controlled co-deposition of organolead halide perovskite. , 2016, , .		0
123	Structural analysis of polycrystalline GaN layers grown on glass substrates. , 2018, , 359-362.		0