Hitoshi Tampo

List of Publications by Year
in descending order

123 papers	3,126 citations	136950 32 h-index	168389 53 g-index
123 all docs	123 docs citations	123 times ranked	3298 citing authors

#	Article	IF	Citations
1	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
2	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
3	Photovoltaics of CZTS. Springer Handbooks, 2022, , 1305-1326.	0.6	1
4	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
5	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
6	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
7	Sodium incorporation effect on morphological and photovoltaic properties for Cu2ZnSnSe4 solar cells. Japanese Journal of Applied Physics, 2020, 59, SCCD06.	1.5	2
8	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
9	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
10	Physical routes for the synthesis of kesterite. JPhys Energy, 2019, 1, 042003.	5.3	34
11	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
12	Band Alignment of the CdS/Cu₂Zn(Sn_{1â€“<i>x</i>}Ge<i>_x</i>)Se₄ Heterointerface and Electronic Properties at the Cu₂Zn(Sn_{1â€“<i>x</i>}Ge<i>_x</i>)Se₄ Surface: <i>x</i> = 0, 0.2, and 0.4. ACS Applied Materials & Interfaces, 2019, 11, 4637-4648.	8.0	23
13	Analysis of future generation solar cells and materials. Japanese Journal of Applied Physics, 2018, 57, 04FS03.	1.5	20
14	Reduced recombination in a surface-sulfurized Cu(InGa)Se₂thin-film solar cell. Japanese Journal of Applied Physics, 2018, 57, 055701.	1.5	9
15	How small amounts of Ge modify the formation pathways and crystallization of kesterites. Energy and Environmental Science, 2018, 11, 582-593.	30.8	169
16	Analysis of Optical and Recombination Losses in Solar Cells. Springer Series in Optical Sciences, 2018, , 29-82.	0.7	6
17	Inorganic Semiconductors and Passivation Layers. Springer Series in Optical Sciences, 2018, , 319-426.	0.7	3
18	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

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19	Very small tail state formation in Cu2ZnGeSe4. Applied Physics Letters, 2018, 113, .	3.3	28
20	Ultra-thin Cadmium Sulfide Electron-transporting Layer for Planar Perovskite Solar Cell. Chemistry Letters, 2018, 47, 1350-1353.	1.3	3
21	Reduced potential fluctuation in a surface sulfurized Cu(InGa)Se2. Japanese Journal of Applied Physics, 2018, 57, 085702.	1.5	2
22	Effect of aromatic nitrogen heterocycle treatment on the performance of perovskite solar cells. Japanese Journal of Applied Physics, 2018, 57, 08RE08.	1.5	3
23	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
24	Structural analysis of polycrystalline GaN layers grown on glass substrates. , 2018, , 359-362.		0
25	Band Alignment of CdS/Cu2ZnSnSe4 Heterointerface and Solar Cell Performances. MRS Advances, 2017, 2, 3157-3162.	0.9	3
26	Electronic structures of Cu₂ZnSnSe₄surface and CdS/Cu₂ZnSnSe₄heterointerface. Japanese Journal of Applied Physics, 2017, 56, 065701.	1.5	7
27	Improved performance in Cu2ZnSnSe4 solar cells using a sandwich-structured ZnSe/Cu2SnSe3/ZnSe precursor. Current Applied Physics, 2017, 17, 366-369.	2.4	5
28	Improvement of minority carrier lifetime and conversion efficiency by Na incorporation in Cu2ZnSnSe4 solar cells. Journal of Applied Physics, 2017, 122, .	2.5	37
29	Determination and interpretation of the optical constants for solar cell materials. Applied Surface Science, 2017, 421, 276-282.	6.1	24
30	Electronic structure of Cu₂ZnSn(S_{<i>x</i>}Se_{1âˆ’<i>x</i>})₄ surface and CdS/Cu₂ZnSn(S_{<i>x</i>}Se_{1âˆ’<i>x</i>})₄ interface. Physica Status Solidi C: Current Topics in Solid State Physics, 2017, 14, .	0.8	9
31	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
32	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
33	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
34	Highly Controlled Codeposition Rate of Organolead Halide Perovskite by Laser Evaporation Method. ACS Applied Materials & Interfaces, 2016, 8, 26013-26018.	8.0	25
35	Improvement of voltage deficit of Ge-incorporated kesterite solar cell with 12.3% conversion efficiency. Applied Physics Express, 2016, 9, 102301.	2.4	129
36	Laser deposition for the controlled co-deposition of organolead halide perovskite. , 2016, , .		0

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37	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
38	Narrow-bandgap Cu2Sn1â^’xGexSe3 thin film solar cells. Materials Letters, 2015, 158, 205-207.	2.6	21
39	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
40	Photocarrier recombination dynamics in Cu2ZnSn(S,Se)4 and Cu(In,Ga)Se2 studied by temperature-dependent time resolved Photoluminescence (TR-PL). , 2015, , .		0
41	Dielectric functions of Cu2ZnSnSe4 and Cu2SnSe3 semiconductors. Journal of Applied Physics, 2015, 117, 015702.	2.5	40
42	Determination of deep-level defects in Cu2ZnSn(S,Se)4 thin-films using photocapacitance method. Applied Physics Letters, 2015, 106, .	3.3	20
43	Study of Cu2ZnSn(S,Se)4Thin Films for Solar Cell Application. Journal of Physics: Conference Series, 2015, 596, 012019.	0.4	2
44	Cu₂ZnSnSe₄thin-film solar cells fabricated using Cu₂SnSe₃and ZnSe bilayers. Applied Physics Express, 2015, 8, 042301.	2.4	21
45	Characterization of electronic structure of Cu2ZnSn(S Se1â^’)4 absorber layer and CdS/Cu2ZnSn(S) Tj ETQq1 1 0.784314 rgBT /Overl 2015, 582, 166-170.	1.8	31
46	Study of recombination process in Cu<inf>2</inf>ZnSnS<inf>4</inf> thin film using two-wavelength excited photoluminescence. , 2014, , .		2
47	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
48	Temperature induced phase transformation in coevaporated Cu2SnSe3 thin films. Materials Letters, 2014, 116, 61-63.	2.6	12
49	Composition control of Cu2ZnSnSe4-based solar cells grown by coevaporation. Thin Solid Films, 2014, 551, 27-31.	1.8	21
50	Growth and characterization of coevaporated Cu2SnSe3 thin films for photovoltaic applications. Thin Solid Films, 2013, 536, 111-114.	1.8	49
51	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
52	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
53	Correlation between Electrical Properties and Crystal<i>c</i>-Axis Orientation of Zinc Oxide Transparent Conducting Films. Japanese Journal of Applied Physics, 2012, 51, 10NC16.	1.5	4
54	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

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55	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
56	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
57	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
58	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
59	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
60	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
61	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
62	Zn1â^'xMgxO/ZnO heterostructures studied by Kelvin probe force microscopy conjunction with probe characterizer. Applied Surface Science, 2009, 256, 1180-1183.	6.1	0
63	Band profiles of ZnMgO/ZnO heterostructures confirmed by Kelvin probe force microscopy. Applied Physics Letters, 2009, 94, .	3.3	32
64	Polarization-induced two-dimensional electron gases in ZnMgO/ZnO heterostructures. Applied Physics Letters, 2008, 93, .	3.3	131
65	Progress in CIGS solar cell technologies. , 2008, , .		0
66	Formation of two-dimensional electron gas and enhancement of electron mobility by Zn polar ZnMgO/ZnO heterostructures. , 2007, 6474, 78.		0
67	Strong excitonic transition of Zn1â^'xMgxO alloy. Applied Physics Letters, 2007, 91, .	3.3	55
68	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
69	Oblique-Incidence Infrared Reflection in Thin ZnO Films Deposited on Sapphire by Gas-Source MBE. AIP Conference Proceedings, 2007, , .	0.4	3
70	Title is missing!. Shinku/Journal of the Vacuum Society of Japan, 2007, 50, 114-117.	0.2	3
71	Direct Observation of Nitrogen Location in Molecular Beam Epitaxy Grown Nitrogen-Doped ZnO. AIP Conference Proceedings, 2007, , .	0.4	2
72	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

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73	Cd-Free Wide Gap CuIn1-xGaxSe2 Solar Cells using Zn1-yMgyO Deposited by Pulsed Laser Deposition. , 2006, , .		1
74	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
75	Photoluminescence recombination centers in ZnO. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1026-1029.	0.8	0
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	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
78	Negative thermal quenching of photoluminescence in ZnO. Physica B: Condensed Matter, 2006, 376-377, 711-714.	2.7	46
79	Two-dimensional electron gas in Zn polar ZnMgOâˆ•ZnO heterostructures grown by radical source molecular beam epitaxy. Applied Physics Letters, 2006, 89, 132113.	3.3	118
80	Two different features of ZnO: Transparent ZnO:Ga electrodes for InGaN-LEDs and homoepitaxial ZnO films for UV-LEDs. , 2006, 6122, 79.		10
81	An Estimate of Maximal Conversion Efficiency in Regard to Doping Concentrations and Junction Position in Cu(In,Ga)Se2 Solar Cells. , 2006, , .		0
82	Microstructural Evolution of ZnO by Wet-Etching Using Acidic Solutions. Journal of Nanoscience and Nanotechnology, 2006, 6, 3364-3368.	0.9	13
83	Ohmic Contact to Phosphorous-Doped ZnO Using Ptâˆ•Niâˆ•Au for p-n Homojunction Diode. Journal of the Electrochemical Society, 2006, 153, G1047.	2.9	8
84	Direct Observation of Nitrogen Location in Molecular Beam Epitaxy Grown Nitrogen-Doped ZnO. Physical Review Letters, 2006, 96, 045504.	7.8	119
85	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
86	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
87	Growth of ZnO and device applications. Applied Surface Science, 2005, 244, 504-510.	6.1	32
88	Wide-gap CIGS solar cells with Zn1-yMgyO transparent conducting film. Materials Research Society Symposia Proceedings, 2005, 865, 1461.	0.1	3
89	Excitation-Power Dependence of Free Exciton Photoluminescence of Semiconductors. Japanese Journal of Applied Physics, 2005, 44, 6113-6114.	1.5	48
90	Photoluminescence characterization of excitonic centers in ZnO epitaxial films. Applied Physics Letters, 2005, 86, 221907.	3.3	22

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91	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
92	Determination of crystallographic polarity of ZnO layers. Applied Physics Letters, 2005, 87, 141904.	3.3	63
93	Degenerate layers in epitaxial ZnO films grown on sapphire substrates. Applied Physics Letters, 2004, 84, 4412-4414.	3.3	65
94	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
95	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
96	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
97	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
98	Characterization of ZnO crystals by photoluminescence spectroscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 872-875.	0.8	22
99	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
100	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
101	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
102	ZnO transparent conducting films deposited by pulsed laser deposition for solar cell applications. Thin Solid Films, 2003, 431-432, 369-372.	1.8	237
103	Magnetic and optical properties of GaMnN grown by ammonia-source molecular-beam epitaxy. Journal of Crystal Growth, 2003, 252, 499-504.	1.5	36
104	Growth and electrical properties of ZnO thin films deposited by novel ion plating method. Thin Solid Films, 2003, 445, 274-277.	1.8	51
105	Polycrystalline GaN: Analysis of the Defects. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 409-412.	0.8	1
106	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
107	High-Quality Transparent Conducting Oxide Films Deposited by a Novel Ion Plating Technique. Materials Research Society Symposia Proceedings, 2003, 763, 741.	0.1	4
108	Bandgap Engineering of ZnO Transparent Conducting Films. Materials Research Society Symposia Proceedings, 2003, 763, 721.	0.1	4

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109	Field Emission from Polycrystalline GaN Grown on Mo Substrate. Japanese Journal of Applied Physics, 2002, 41, L907-L909.	1.5	11
110	Analysis of polycrystalline GaN grown on a glass substrate. Journal of Physics Condensed Matter, 2002, 14, 12697-12702.	1.8	1
111	Time-resolved photoluminescence of polycrystalline GaN layers on metal substrates. Semiconductors, 2002, 36, 878-882.	0.5	4
112	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
113	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
114	Ammonia Source MBE Growth of Polycrystalline GaN p-n Junction. Physica Status Solidi A, 2001, 188, 605-609.	1.7	6
115	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
116	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
117	Local Ordering in GaN-Rich Ternary GaNP Alloys. Materials Research Society Symposia Proceedings, 2000, 618, 321.	0.1	1
118	Improved properties of polycrystalline GaN grown on silica glass substrate. Journal of Crystal Growth, 2000, 209, 387-391.	1.5	22
119	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
120	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
121	Strong Photoluminescence Emission from GaN on SrTiO3. Physica Status Solidi (B): Basic Research, 1999, 216, 113-116.	1.5	12
122	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
123	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