Jiro Nishinaga

List of Publications by Year
in descending order

68 papers	611 citations	623734 14 h-index	713466 21 g-index
69 all docs	69 docs citations	69 times ranked	589 citing authors

#	Article	IF	Citations
1	Group III Elemental Composition Dependence of RbF Postdeposition Treatment Effects on Cu(In,Ga)Se₂ Thin Films and Solar Cells. Journal of Physical Chemistry C, 2018, 122, 3809-3817.	3.1	86
2	Effects of long-term heat-light soaking on Cu(In,Ga)Se₂ solar cells with KF postdeposition treatment. Applied Physics Express, 2017, 10, 092301.	2.4	51
3	Single-crystal Cu(In,Ga)Se₂solar cells grown on GaAs substrates. Applied Physics Express, 2018, 11, 082302.	2.4	30
4	Effects of RbF postdeposition treatment and heat-light soaking on the metastable acceptor activation of CuInSe2 thin film photovoltaic devices. Applied Physics Letters, 2018, 113, .	3.3	25
5	Mechanical and optical characteristics of Al-doped C60 films. Journal of Crystal Growth, 2005, 278, 633-637.	1.5	23
6	Physical and chemical aspects at the interface and in the bulk of CuInSe₂-based thin-film photovoltaics. Physical Chemistry Chemical Physics, 2022, 24, 1262-1285.	2.8	21
7	Selective growth of C60 layers on GaAs and their crystalline characteristics. Thin Solid Films, 2004, 464-465, 323-326.	1.8	18
8	Comparison of ZnO:B and ZnO:Al layers for Cu(In,Ga)Se2 submodules. Thin Solid Films, 2016, 614, 79-83.	1.8	18
9	Lithographic fabrication of point contact with Al2O3 rear-surface-passivated and ultra-thin Cu(In,Ga)Se2 solar cells. Thin Solid Films, 2018, 665, 91-95.	1.8	16
10	Improved efficiency of Cu(In,Ga)Se₂ miniâ€module via highâ€mobility In₂O₃:W,H transparent conducting oxide layer. Progress in Photovoltaics: Research and Applications, 2019, 27, 491-500.	8.1	16
11	Effects of Mo surface oxidation on Cu(In,Ga)Se₂ solar cells fabricated by three-stage process with KF postdeposition treatment. Japanese Journal of Applied Physics, 2016, 55, 022304.	1.5	15
12	Efficient Narrow Band Gap Cu(In,Ga)Se2 Solar Cells with Flat Surface. ACS Applied Materials & Interfaces, 2020, 12, 45485-45492.	8.0	15
13	Cu(In,Ga)Se₂ Solar Cells with Amorphous In₂O₃-Based Front Contact Layers. ACS Applied Materials & Interfaces, 2017, 9, 29677-29686.	8.0	14
14	Effect of thermal annealing on the redistribution of alkali metals in Cu(In,Ga)Se2solar cells on glass substrate. Journal of Applied Physics, 2018, 123, 093101.	2.5	14
15	Spatially Resolved Recombination Analysis of CuIn_xGa_{1-x}Se₂ Absorbers With Alkali Postdeposition Treatments. IEEE Journal of Photovoltaics, 2018, 8, 1833-1840.	2.5	12
16	High efficiency and radiation resistant InGaP/GaAs//CIGS stacked solar cells for space applications. , 2016, , .		11
17	Impact of front contact layers on performance of Cu(In,Ga)Se₂ solar cells in relaxed and metastable states. Progress in Photovoltaics: Research and Applications, 2018, 26, 789-799.	8.1	11
18	Optical and Structural Properties of High-Efficiency Epitaxial Cu(In,Ga)Se₂ Grown on GaAs. ACS Applied Materials & Interfaces, 2020, 12, 3150-3160.	8.0	11

#	Article	IF	Citations
19	Nanoscale selective area epitaxy of C[sub 60] crystals on GaAs by molecular beam epitaxy. Journal of Vacuum Science & Technology B, 2006, 24, 1587.	1.3	10
20	Effect of excitons on the absorption in the solar-cell with AlGaAs/GaAs superlattice grown by molecular beam epitaxy. Journal of Crystal Growth, 2011, 323, 504-507.	1.5	10
21	Degradation mechanism of Cu(In,Ga)Se₂ solar cells induced by exposure to air. Japanese Journal of Applied Physics, 2016, 55, 072301.	1.5	10
22	Evaluation of femtosecond laser-scribed Cu(In,Ga)Se2 solar cells using scanning spreading resistance microscopy. Applied Physics Express, 2018, 11, 032301.	2.4	10
23	Reduced recombination in a surface-sulfurized Cu(InGa)Se₂thin-film solar cell. Japanese Journal of Applied Physics, 2018, 57, 055701.	1.5	9
24	RHEED intensity oscillation of C60 layer epitaxial growth. Journal of Crystal Growth, 2009, 311, 2227-2231.	1.5	8
25	Growth of CuGaSe₂ Layers on Closely Lattice-Matched GaAs Substrates by Migration-Enhanced Epitaxy. Japanese Journal of Applied Physics, 2011, 50, 125502.	1.5	8
26	Siâ€Doped Cu(In,Ga)Se₂ Photovoltaic Devices with Energy Conversion Efficiencies Exceeding 16.5% without a Buffer Layer. Advanced Energy Materials, 2018, 8, 1702391.	19.5	8
27	Investigation of C60Epitaxial Growth Mechanism on GaAs Substrates. Japanese Journal of Applied Physics, 2009, 48, 025502.	1.5	7
28	Electrical properties of C₆₀ deltaâ€doped GaAs and AlGaAs layers grown by MBE. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2486-2489.	0.8	7
29	Growth and characterization of C60/GaAs interfaces and C60 doped GaAs. Journal of Crystal Growth, 2011, 323, 135-139.	1.5	7
30	Significance of metastable acceptors in Cu(In,Ga)Se₂ solar cells in accelerated lifetime testing. Japanese Journal of Applied Physics, 2018, 57, 092301.	1.5	7
31	Impact of rough substrates on hydrogen-doped indium oxides for the application in CIGS devices. Solar Energy Materials and Solar Cells, 2020, 206, 110300.	6.2	7
32	Effects of alkali-metal incorporation into epitaxial Cu(In,Ga)Se2 solar cells prepared by molecular beam epitaxy. Thin Solid Films, 2022, 741, 139034.	1.8	7
33	Characteristics of multivalent impurity doped C60 films grown by MBE. Journal of Crystal Growth, 2007, 301-302, 687-691.	1.5	6
34	Crystalline and electrical characteristics of C60-doped GaAs films. Journal of Crystal Growth, 2009, 311, 2232-2235.	1.5	6
35	Area selective epitaxy of InAs on GaAs(0 0 1) and GaAs(1 1 1)A by migration enhanced epitaxy. Journal of Crystal Growth, 2011, 323, 9-12.	1.5	6
36	An over 18%-efficient completely buffer-free Cu(In,Ga)Se₂ solar cell. Applied Physics Express, 2018, 11, 075502.	2.4	6

#	Article	IF	Citations
37	A comparative study of the effects of light and heavy alkali-halide postdeposition treatment on CuGaSe2 and Cu(In,Ga)Se2 thin-film solar cells. Solar Energy, 2020, 211, 1092-1101.	6.1	6
38	High absorption efficiency of AlGaAs/GaAs superlattice solar cells. Japanese Journal of Applied Physics, 2015, 54, 052301.	1.5	5
39	Effect of Excitons in AlGaAs/GaAs Superlattice Solar Cells. Japanese Journal of Applied Physics, 2011, 50, 052302.	1.5	4
40	High-Absorption-Efficiency Superlattice Solar Cells by Excitons. Japanese Journal of Applied Physics, 2013, 52, 112302.	1.5	4
41	Current status of transparent conducting oxide layers with high electron mobility and their application in Cu(In,Ga)Se2 mini-modules. Thin Solid Films, 2019, 673, 26-33.	1.8	4
42	Femtosecond Laser Scribing of Cu(In,Ga)Se2 Thin-Film Solar Cell. Journal of Laser Micro Nanoengineering, 2016, 11, 130-136.	0.1	4
43	Effect of Excitons in AlGaAs/GaAs Superlattice Solar Cells. Japanese Journal of Applied Physics, 2011, 50, 052302.	1.5	4
44	Selective area growth of InAs nanostructures on faceted GaAs microstructures by migration enhancedepitaxy. Journal of Crystal Growth, 2013, 378, 480-484.	1.5	3
45	Recombination current in AlGaAs/GaAs superlattice solar-cells grown by molecular beam epitaxy. Journal of Crystal Growth, 2015, 425, 326-329.	1.5	3
46	Crystalline Characterisitics of Epitaxial Cu(In,Ga)Se2 Layers on GaAs (001) Substrates. , 2020, , .		3
47	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
48	Structural properties of C60-multivalent metal composite layers grown by molecular beam epitaxy. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C3E10-C3E13.	1.2	2
49	Excitonic absorption on AlGaAs/GaAs superlattice solar cells. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 330-333.	0.8	2
50	Controlled nucleation and optical properties of InAs quantum dots grown on faceted GaAs microstructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1500-1504.	0.8	2
51	Ultrafast laser scribing of transparent conductive oxides in Cu(In,Ga)Se₂ solar cells via laser lift-off process: the control of laser-induced damage. Proceedings of SPIE, 2017, , .	0.8	2
52	Reduced potential fluctuation in a surface sulfurized Cu(InGa)Se2. Japanese Journal of Applied Physics, 2018, 57, 085702.	1.5	2
53	Optoelectronic Inactivity of Dislocations in Cu(In,Ga)Se₂ Thin Films. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100042.	2.4	2
54	Influence of argon pressure on sputter-deposited molybdenum back contacts for flexible Cu(In,Ga)Se2 solar cells on polyimide films. Solar Energy, 2022, 241, 327-334.	6.1	2

#	Article	IF	Citations
55	Compositional Nonuniformity in Molecular Beam Epitaxy Grown InAsSb on GaAs(111)A Substrates. Japanese Journal of Applied Physics, 2003, 42, 6260-6264.	1.5	1
56	RHEED intensity oscillation of C60 growth on GaAs substrates. Applied Surface Science, 2008, 255, 682-684.	6.1	1
57	Electrical properties of C60 and Si codoped GaAs layers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 02B116.	1.2	1
58	Structural properties of InAsâ€based nanostructures grown on GaAs(001) and GaAs(111)A by area selective epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 218-221.	0.8	1
59	Crystalline and electrical characteristics of C60 uniformly doped GaAs layers. Journal of Crystal Growth, 2013, 378, 81-84.	1.5	1
60	Optical properties of Al Ga1â^'As/GaAs superlattice solar cells. Journal of Crystal Growth, 2015, 425, 333-336.	1.5	1
61	Assessing the impact of back-contact recombination on CIGS solar cells with improved crystal quality. , 2019, , .		1
62	Selective growth of C[sub 60]/GaAs and the optical characteristic. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1441.	1.6	0
63	Erratum to â€œArea selective epitaxy of InAs on GaAs(001) and GaAs(111)A by migration enhanced epitaxyâ€• [J. Crystal Growth 323 (2011) 9â€"12]. Journal of Crystal Growth, 2011, 335, 181-182.	1.5	0
64	Growth and characterisation of fullerene/GaAs interfaces and C60-doped GaAs and AlGaAs layers. , 2013, , 559-578.		0
65	Device physics of Cu(In,Ga)Se2 solar cells for long-term operation. , 2017, , .		0
66	Growth and Characterization of Fullerene/GaAs Interfaces and C 60 -Doped GaAs and AlGaAs Layers. , 2018, , 533-550.		0
67	Investigating dislocations in epitaxial Cu(In,Ga)Se2 absorbers using atom probe tomography. , 2021, , .		0
68	Temperature and excitation dependence of recombination in CIGS thin films with high spatial resolution. , 2019, , .		0