Yong-Duck Chung

List of Publications by Year in Descending Order

94 papers	1,097 citations	18 h-index	28 g-index
128 ext. papers	1,250 ext. citations	3.8 avg, IF	4.01 L-index

#	Paper	IF	Citations
94	The origin of the enhanced photoresponsivity of the phototransistor with ZnO1-xSx single active layer. *Applied Surface Science*, **2022**, 590, 153062	6.7	1
93	Evolution of Morphological and Chemical Properties at p-n Junction of Cu(In,Ga)Se Solar Cells with Zn(O,S) Buffer Layer as a Function of KF Postdeposition Treatment Time. *ACS Applied Materials & Interfaces*, **2021**, 13, 48611-48621	9.5	0
92	Terahertz Emission and Ultrafast Carrier Dynamics of Ar-Ion Implanted Cu(In,Ga)Se2 Thin Films. *Crystals*, **2021**, 11, 411	2.3	0
91	Colorful solar cells utilizing off-axis light diffraction via transparent nanograting structures. *Nano Energy*, **2021**, 80, 105550	17.1	1
90	Work Function Tuning of Zinc Tin Oxide Thin Films Using High-Density O2 Plasma Treatment. *Coatings*, **2020**, 10, 1026	2.9	8
89	Ultrafast wavelength-dependent carrier dynamics related to metastable defects in Cu(In,Ga)Se2 solar cells with chemically deposited Zn(O,S) buffer layer. *Nano Energy*, **2020**, 74, 104855	17.1	11
88	Reactively sputtered Zn(O,S) buffer layers for controlling band alignment of Cu(In,Ga)Se2 thin-film solar cell interface. *Journal of Alloys and Compounds*, **2020**, 842, 155986	5.7	6
87	Sodium-assisted passivation of grain boundaries and defects in CuZnSnSe thin films. *Physical Chemistry Chemical Physics*, **2020**, 22, 7597-7605	3.6	6
86	Color tuning in Cu(In,Ga)Se2 thin-film solar cells by controlling optical interference in transparent front layers. *Progress in Photovoltaics: Research and Applications*, **2020**, 28, 798-807	6.8	7
85	Ultrafast Photoexcited-Carrier Behavior Induced by Hydrogen Ion Irradiation of a Cu(In,Ga)Se2 Thin Film in the Terahertz Region. *IEEE Transactions on Terahertz Science and Technology*, **2020**, 1-1	3.4	2
84	Unraveling interface characteristics of Zn(O,S)/Cu(In,Ga)Se2 at nanoscale: Enhanced hole transport by tuning band offsets. *Applied Surface Science*, **2020**, 509, 144782	6.7	7
83	Role of hydrazine in the enhanced growth of zinc sulfide thin films using chemical bath deposition for Cu(In,Ga)Se2 solar cell application. *Materials Science in Semiconductor Processing*, **2020**, 105, 104729	4.3	6
82	Thermally evaporated amorphous InZnO thin film applicable to transparent conducting oxide for solar cells. *Journal of Alloys and Compounds*, **2019**, 806, 976-982	5.7	16
81	Enhanced electrical conductivity of transparent electrode using metal microfiber networks for gridless thin-film solar cells. *Solar Energy Materials and Solar Cells*, **2019**, 200, 109998	6.4	6
80	Analysis of vertical phase distribution in reactively sputtered zinc oxysulfide thin films. *Applied Surface Science*, **2019**, 486, 555-560	6.7	11
79	Interface and bulk properties of Cu(In,Ga)Se 2 solar cell with a cracker-ZnS buffer layer. *Current Applied Physics*, **2018**, 18, 405-410	2.6	3
78	Characterization of bilayer AZO film grown by low-damage sputtering for Cu(In,Ga)Se2 solar cell with a CBD-ZnS buffer layer. *Materials Science in Semiconductor Processing*, **2018**, 81, 48-53	4.3	6

77	Effect of supersonic spraying impact velocity on opto-electric properties of transparent conducting flexible films consisting of silver nanowire, ITO, and polyimide multilayers. *Journal of Alloys and Compounds*, **2018**, 739, 653-659	5.7	6
76	Ultrafast Photocarrier Dynamics at the p□ Junction in Cu(In,Ga)Se2 Solar Cell with Various Zn(O,S) Buffer Layers Measured by Optical Pump□Terahertz Probe Spectroscopy. *ACS Applied Energy Materials*, **2018**, 1, 522-530	6.1	12
75	Highly efficient Ag-alloyed Cu(In,Ga)Se2 solar cells with wide bandgaps and their application to chalcopyrite-based tandem solar cells. *Nano Energy*, **2018**, 48, 345-352	17.1	22
74	Spectral Response of CuGaSe2/Cu(In,Ga)Se2 Monolithic Tandem Solar Cell With Open-Circuit Voltage Over 1 V. *IEEE Journal of Photovoltaics*, **2018**, 1-9	3.7	3
73	Metal-agglomeration-suppressed growth of MoS and MoSe films with small sulfur and selenium molecules for high mobility field effect transistor applications. *Nanoscale*, **2018**, 10, 15213-15221	7.7	7
72	Post-Heat Treatment on Cu(In,Ga)Se2 Solar Cells with CBD-ZnS Buffer Layers as a Function of ITO Growth Temperature. *Applied Science and Convergence Technology*, **2018**, 27, 189-193	0.8	3
71	Enhanced sulfurization reaction of molybdenum using a thermal cracker for forming two-dimensional MoS layers. *Physical Chemistry Chemical Physics*, **2018**, 20, 16193-16201	3.6	11
70	Surface nanostructuring of CuIn1□GaxSe2films using argon plasma treatment. *Semiconductor Science and Technology*, **2017**, 32, 075014	1.8	6
69	Photoluminescence of sulfur-incorporated CIGS solar cells through post-annealing. *Journal of Luminescence*, **2017**, 188, 595-599	3.8	5
68	Effects of Ga concentration in Cu(In,Ga)Se 2 thin film solar cells with a sputtered-Zn(O,S) buffer layer. *Solar Energy*, **2017**, 145, 59-65	6.8	10
67	Interface Analysis of Cu(In,Ga)Se2 and ZnS Formed Using Sulfur Thermal Cracker. *ETRI Journal*, **2016**, 38, 265-271	1.4	12
66	Light-soaking effects and capacitance profiling in Cu(In,Ga)Se thin-film solar cells with chemical-bath-deposited ZnS buffer layers. *Physical Chemistry Chemical Physics*, **2016**, 18, 33211-33217	3.6	21
65	Comment on □Enhancement in hardness and transmittance of ZnS via SiO2/Y2O3 multilayer□ *Journal of Alloys and Compounds*, **2016**, 664, 648-649	5.7	1
64	Behavior of Photocarriers in the Light-Induced Metastable State in the p-n Heterojunction of a Cu(In,Ga)Se2 Solar Cell with CBD-ZnS Buffer Layer. *ACS Applied Materials & Interfaces*, **2016**, 8, 22151-8	9.5	42
63	Distinction of [220] and [204] textures of Cu(In,Ga)Se2 film and their growth behaviors depending on substrate nature and Na incorporation. *Thin Solid Films*, **2015**, 589, 309-314	2.2	2
62	Photovoltaic Performance and Interface Behaviors of Cu(In,Ga)Se2 Solar Cells with a Sputtered-Zn(O,S) Buffer Layer by High-Temperature Annealing. *ACS Applied Materials & Interfaces*, **2015**, 7, 17425-32	9.5	38
61	Na-Dependent Ultrafast Carrier Dynamics of CdS/Cu(In,Ga)Se2 Measured by Optical Pump-Terahertz Probe Spectroscopy. *Journal of Physical Chemistry C*, **2015**, 119, 20231-20236	3.8	15
60	Flexible solar cells with a Cu(In,Ga)Se2 absorber grown by using a Se thermal cracker on a polyimide substrate. *Journal of the Korean Physical Society*, **2015**, 66, 76-81	0.6	6

59	Characteristics of temperature and wavelength dependence of CuInSe2 thin-film solar cell with sputtered Zn(O,S) and CdS buffer layers. *Physica Status Solidi (A) Applications and Materials Science*, **2014**, 211, 2172-2176	1.6	18
58	Non-toxically enhanced sulfur reaction for formation of chalcogenide thin films using a thermal cracker. *Journal of Materials Chemistry A*, **2014**, 2, 14593-14599	13	26
57	Na effect on flexible Cu(In,Ga)Se2 photovoltaic cell depending on diffusion barriers (SiOx, i-ZnO) on stainless steel. *Materials Chemistry and Physics*, **2014**, 147, 783-787	4.4	12
56	Junction formation at the interface of CdS/CuInxGa(1 ☒)Se2. *Journal Physics D: Applied Physics*, **2014**, 47, 345302	3	18
55	Accurate quantification of Cu(In,Ga)Se2 films by AES depth profiling analysis. *Applied Surface Science*, **2013**, 282, 777-781	6.7	5
54	Photovoltaic performance of flexible Cu(In,Ga)Se2 thin-film solar cells with varying Cr impurity barrier thickness. *Current Applied Physics*, **2013**, 13, 2033-2037	2.6	13
53	Electrical and optical properties of radio frequency magnetron-sputtered lightly aluminum-doped zinc oxide thin films deposited in hydrogen□rgon gas. *Thin Solid Films*, **2013**, 540, 142-145	2.2	2
52	ZnS buffer layer prepared by sulfurization of sputtered Zn film for Cu(In, Ga)Se2 solar cells **2013**,		1
51	Influence of growth temperature of transparent conducting oxide layer on Cu(In,Ga)Se2 thin-film solar cells. *Thin Solid Films*, **2012**, 520, 2115-2118	2.2	31
50	Effect of NaF precursor on preferential growth of Cu(In,Ga)Se2 thin films. *Journal of the Korean Physical Society*, **2012**, 60, 1517-1520	0.6	2
49	Interface characteristics of CdS/Cu(In,Ga)Se2 thin-film solar cells by using photoreflectance spectroscopy. *Journal of the Korean Physical Society*, **2012**, 61, 1623-1627	0.6	3
48	Electronic effect of Na on Cu(In,Ga)Se2 solar cells. *Applied Physics Letters*, **2012**, 101, 023901	3.4	47
47	Effect of Se flux on CuIn1-xGaxSe2 film in reactive sputtering process. *Progress in Photovoltaics: Research and Applications*, **2012**, 20, 899-903	6.8	16
46	Quantitative analysis of Cu(In,Ga)Se2thin films by secondary ion mass spectrometry using a total number counting method. *Metrologia*, **2012**, 49, 522-529	2.1	8
45	Photoreflectance characteristics of chemical-bath-deposited-CdS layer in Cu(In,Ga)Se2 thin-film solar cells. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2012**, 30, 04D116	2.9	5
44	Effect of annealing on CdS/Cu(In,Ga)Se2 thin-film solar cells. *Current Applied Physics*, **2011**, 11, S65-S67	2.6	43
43	Dependence of Cu(In,Ga)Se2 Solar Cell Performance on Cd Solution Treatment Conditions. *Molecular Crystals and Liquid Crystals*, **2011**, 551, 221-227	0.5	3
42	The thickness effect of SiOx layer in CIGS thin-film solar cells fabricated on stainless-steel substrate **2010**,		1

41	Analysis of the Current-voltage Curves of a Cu(In,Ga)Se2 Thin-film Solar Cell Measured at Different Irradiation Conditions. *Journal of the Optical Society of Korea*, **2010**, 14, 321-325		10
40	Incorporation of Cu in Cu(In,Ga)Se2-based Thin-film Solar Cells. *Journal of the Korean Physical Society*, **2010**, 57, 1826-1830	0.6	33
39	60-GHz System-on-Packaging Transmitter for Radio-Over-Fiber Applications. *Journal of Lightwave Technology*, **2008**, 26, 2379-2387	4	7
38	System-on-Packaging with Electroabsorption Modulator for a 60-GHz Band Radio-Over-Fiber Link. *IEEE Transactions on Advanced Packaging*, **2008**, 31, 163-169		5
37	Improving 60-GHz band radio-frequency with radio-over-fiber link characteristics of optical transmitter system-on-packaging. *Optical Engineering*, **2008**, 47, 025005	1.1	4
36	A monolithic electro-absorption duplexer (EAD) integrated with a spot size converter. *Semiconductor Science and Technology*, **2008**, 23, 015005	1.8	
35	Development of 60-GHz analog optic transmitter module with radio-frequency gain for radio-over-fiber link. *Optical Engineering*, **2007**, 46, 115004	1.1	0
34	A 60-GHz-Band Analog Optical System-on-Package Transmitter for Fiber-Radio Communications. *Journal of Lightwave Technology*, **2007**, 25, 3407-3412	4	10
33	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2006**, 12, 1017-1024	3.8	5
32	Analog characteristics of electroabsorption modulator for RF/optic conversion; RF gain and IMD3. *Microwave and Optical Technology Letters*, **2006**, 48, 1151-1155	1.2	5
31	Fabrication and characterization of a spot-size converter-integrated 1.3 μm FP laser diode. *Semiconductor Science and Technology*, **2006**, 21, 790-793	1.8	2
30	Low phase-noise 40 GHz optical pulses from a self-starting electroabsorption-modulator-based optoelectronic oscillator **2006**,		1
29	Analysis of Crosstalk and Impedance Matching for 60 GHz Band Electro-Absorption Duplexer (EAD) Module **2006**,		1
28	SOA-EAM frequency up/down-converters for 60-GHz bi-directional radio-on-fiber systems. *IEEE Transactions on Microwave Theory and Techniques*, **2006**, 54, 959-966	4.1	63
27	Development and RF characteristics of analog 60-GHz electroabsorption modulator module for RF/optic conversion. *IEEE Transactions on Microwave Theory and Techniques*, **2006**, 54, 780-787	4.1	13
26	New Impedance Matching Scheme for 60 GHz Band Electro-Absorption Modulator Modules. *ETRI Journal*, **2006**, 28, 393-396	1.4	3
25	Analog RF-optic performance of 60 GHz electroabsorption duplexer module **2006**, 6352, 830		
24	Remote optoelectronic frequency down-conversion using 60-GHz optical heterodyne signals and an electroabsorption Modulator. *IEEE Photonics Technology Letters*, **2005**, 17, 1073-1075	2.2	15

23	Optical coupling analysis of dual-waveguide structure for monolithic integration of photonic devices. *IEEE Photonics Technology Letters*, **2005**, 17, 2304-2306	2.2	4
22	Characteristics of radio-over-fiber link with 60-GHz narrow band electroabsorption modulator **2005**,		1
21	Large Enhancement of Linearity in Electroabsorption Modulator with Composite Quantum-Well Absorption Core. *IEICE Transactions on Electronics*, **2005**, E88-C, 967-972	0.4	4
20	Optimization of Packaging Design of TWEAM Module for Digital and Analog Applications. *ETRI Journal*, **2004**, 26, 589-596	1.4	11
19	Fabrication of a four-channel monolithic integrated laser array with asymmetric sampled grating lasers. *Semiconductor Science and Technology*, **2004**, 19, 561-564	1.8	
18	Monolithic integration of thin film heater array with 4-channel WDM transmitter. *Microelectronics Journal*, **2004**, 35, 203-206	1.8	1
17	Adhesion and interface chemical reactions of Cu/polyimide and Cu/TiN by XPS. *Applied Surface Science*, **2003**, 205, 128-136	6.7	71
16	Spontaneous N incorporation onto a Si(100) surface. *Physical Review Letters*, **2003**, 90, 106101	7.4	37
15	Chemical configuration of nitrogen in ultrathin Si oxynitride on Si(100). *Physical Review B*, **2002**, 66,	3.3	38
14	Adsorption and reaction of NO on the Si(001) surface. *Physical Review B*, **2002**, 65,	3.3	26
13	Growth of epitaxial Al2O3(111) films using an oxidized Si(111) substrate. *Journal of Materials Chemistry*, **2002**, 12, 2559-2562		8
12	Effect of oxidized Al prelayer for the growth of polycrystalline Al2O3 films on Si using ionized beam deposition. *Thin Solid Films*, **2001**, 388, 290-294	2.2	9
11	XPS core-level shifts and XANES studies of CuPt and CoPt alloys. *Surface and Interface Analysis*, **2000**, 30, 475-478	1.5	43
10	Grain boundary diffusion of Cu in TiN film by X-ray photoelectron spectroscopy. *Applied Physics A: Materials Science and Processing*, **2000**, 70, 431-434	2.6	19
9	X-ray absorption spectroscopy of Ag-Cr and Pd-Cr alloys formed by ion-beam-mixing. *Applied Physics A: Materials Science and Processing*, **2000**, 70, 59-63	2.6	7
8	Comparison of titanium oxide films grown on bare glass and boiled glass in 50% H2SO4 by metal-organic chemical vapor deposition. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2000**, 18, 2394	2.9	3
7	Effects of chemical etching with hydrochloric acid on a glass surface. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2000**, 18, 2563	2.9	12
6	Effects of chemical etching with sulfuric acid on glass surface. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2000**, 18, 401-404	2.9	22

5	Titanium oxide films on Si(100) deposited by e-beam evaporation. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2000**, 18, 2932-2936	2.9	18
4	Method for the study of grain boundary diffusion effects by Auger electron spectroscopy sputter depth profiling. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1997**, 15, 2013-2016	2.9	1
3	Modeling of Traveling Wave Electro-absorption Modulator for High Speed Optical Communication Systems		1
2	System-on-packaging with electro-absorption modulator for 60 GHz band radio-over-fiber link		1
1	Fabrication and characteristics of traveling-wave electro-absorption modulator (TWEAM) modules for millimeter-wave radio-over-fiber link		4