SeJin Ahn

List of Publications by Year
in descending order

52 papers	1,698 citations	304743 22 h-index	289244 40 g-index
52 all docs	52 docs citations	52 times ranked	1807 citing authors

#	Article	IF	Citations
1	Effects of Ga contents on properties of CIGS thin films and solar cells fabricated by co-evaporation technique. Current Applied Physics, 2010, 10, 990-996.	2.4	179
2	CuInSe₂ (CIS) Thin Film Solar Cells by Direct Coating and Selenization of Solution Precursors. Journal of Physical Chemistry C, 2010, 114, 8108-8113.	3.1	137
3	An 8.2% efficient solution-processed CuInSe2 solar cell based on multiphase CuInSe2 nanoparticles. Energy and Environmental Science, 2012, 5, 7539.	30.8	97
4	Characteristics of Cu(In,Ga)Se2 (CIGS) thin films deposited by a direct solution coating process. Journal of Alloys and Compounds, 2012, 513, 68-74.	5.5	86
5	A review on binary metal sulfide heterojunction solar cells. Solar Energy Materials and Solar Cells, 2019, 200, 109963.	6.2	82
6	Kinetically Controlled Growth of Phaseâ€Pure SnS Absorbers for Thin Film Solar Cells: Achieving Efficiency Near 3% with Longâ€Term Stability Using an SnS/CdS Heterojunction. Advanced Energy Materials, 2018, 8, 1702605.	19.5	71
7	Nucleation and growth of Cu(In,Ga)Se2 nanoparticles in low temperature colloidal process. Thin Solid Films, 2007, 515, 4036-4040.	1.8	69
8	Effects of heat treatments on the properties of Cu(In,Ga)Se2 nanoparticles. Solar Energy Materials and Solar Cells, 2007, 91, 1836-1841.	6.2	62
9	Effects of selenization conditions on densification of Cu(In,Ga)Se2 (CIGS) thin films prepared by spray deposition of CIGS nanoparticles. Journal of Applied Physics, 2009, 105, .	2.5	61
10	Development of semitransparent CIGS thin-film solar cells modified with a sulfurized-AgGa layer for building applications. Journal of Materials Chemistry A, 2016, 4, 10542-10551.	10.3	57
11	Cu(In,Ga)Se2 thin film solar cells from nanoparticle precursors. Current Applied Physics, 2008, 8, 766-769.	2.4	53
12	CuInSe₂ (CIS) Thin Films Prepared from Amorphous Cuâ€"Inâ€"Se Nanoparticle Precursors for Solar Cell Application. ACS Applied Materials & Interfaces, 2012, 4, 1530-1536.	8.0	52
13	Effects of PbO on the repassivation kinetics of alloy 690. Corrosion Science, 2006, 48, 1137-1153.	6.6	36
14	Nanoparticle derived Cu(In, Ga)Se2 absorber layer for thin film solar cells. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 313-314, 171-174.	4.7	34
15	CuInSe₂ Thinâ€Film Solar Cells with 7.72â€‰% Efficiency Prepared via Direct Coating of a Metal Salts/Alcoholâ€Based Precursor Solution. ChemSusChem, 2012, 5, 1773-1777.	6.8	33
16	Carbon-Impurity Affected Depth Elemental Distribution in Solution-Processed Inorganic Thin Films for Solar Cell Application. ACS Applied Materials & Interfaces, 2016, 8, 5261-5272.	8.0	32
17	Microwave-assisted ultrafast in-situ growth of N-doped carbon quantum dots on multiwalled carbon nanotubes as an efficient electrocatalyst for photovoltaics. Journal of Colloid and Interface Science, 2021, 586, 349-361.	9.4	32
18	The growth of Cu2â^'Se thin films using nanoparticles. Thin Solid Films, 2013, 546, 299-307.	1.8	31

#	Article	IF	Citations
19	Efficient defect passivation of perovskite solar cells <i>via</i> stitching of an organic bidentate molecule. Sustainable Energy and Fuels, 2020, 4, 3318-3325.	4.9	26
20	Iron pyrite thin films deposited via non-vacuum direct coating of iron-salt/ethanol-based precursor solutions. Journal of Materials Chemistry A, 2014, 2, 17779-17786.	10.3	24
21	Role of Na in solution-processed CuInSe2 (CISe) devices: A different story for improving efficiency. Nano Energy, 2018, 48, 401-412.	16.0	24
22	Solution-Processed Zn_{<i>x</i>}Cd_{1â€“<i>x</i>}S Buffer Layers for Vapor Transport-Deposited SnS Thin-Film Solar Cells: Achieving High Open-Circuit Voltage. ACS Applied Materials & Interfaces, 2020, 12, 7001-7009.	8.0	24
23	Facile Microwave-Assisted Synthesis of Multiphase CuInSe₂ Nanoparticles and Role of Secondary CuSe Phase on Photovoltaic Device Performance. Journal of Physical Chemistry C, 2013, 117, 9529-9536.	3.1	23
24	A chelating effect in hybrid inks for non-vacuum-processed CuInSe2 thin films. Journal of Materials Chemistry A, 2014, 2, 5087.	10.3	23
25	Amorphous Cuâ€“Inâ€“S Nanoparticles as Precursors for CuInSe₂ Thinâ€Film Solar Cells with a High Efficiency. ChemSusChem, 2013, 6, 1282-1287.	6.8	22
26	Structural, optical and electrical impacts of marcasite in pyrite thin films. Solar Energy, 2018, 159, 930-939.	6.1	22
27	The role of NaF post-deposition treatment on the photovoltaic characteristics of semitransparent ultrathin Cu(In,Ga)Se₂ solar cells prepared on indium-tin-oxide back contacts: a comparative study. Journal of Materials Chemistry A, 2019, 7, 21843-21853.	10.3	22
28	Role of chelate complexes in densification of CuInSe2 (CIS) thin film prepared from amorphous Cuâ€“Inâ€“Se nanoparticle precursors. Journal of Materials Chemistry, 2012, 22, 8444.	6.7	21
29	Carbon- and Oxygen-Free Cu(InGa)(SSe)₂ Solar Cell with a 4.63% Conversion Efficiency by Electrostatic Spray Deposition. ACS Applied Materials & Interfaces, 2014, 6, 8369-8377.	8.0	21
30	Analysis of Repassivation Kinetics of Ti Based on the Point Defect Model. Journal of the Electrochemical Society, 2006, 153, B370.	2.9	20
31	Actual partial pressure of Se vapor in a closed selenization system: quantitative estimation and impact on solution-processed chalcogenide thin-film solar cells. Journal of Materials Chemistry A, 2016, 4, 6319-6331.	10.3	20
32	Carbon layer reduction via a hybrid ink of binary nanoparticles in non-vacuum-processed CuInSe2 thin films. Solar Energy Materials and Solar Cells, 2013, 110, 126-132.	6.2	19
33	Efficiency limiting factors in Cu(In,Ga)Se2 thin film solar cells prepared by Se-free rapid thermal annealing of sputter-deposited Cu-In-Ga-Se precursors. Applied Physics Letters, 2013, 103, .	3.3	18
34	Performance and Uniformity Improvement in Ultrathin Cu(In,Ga)Se₂ Solar Cells with a WO<i>_x</i> Nanointerlayer at the Absorber/Transparent Back-Contact Interface. ACS Applied Materials & Interfaces, 2019, 11, 655-665.	8.0	18
35	Low-Temperature Processable Charge Transporting Materials for the Flexible Perovskite Solar Cells. Electronic Materials Letters, 2018, 14, 657-668.	2.2	17
36	Recombination in Cu(In,Ga)Se2 thin-film solar cells containing ordered vacancy compound phases. Thin Solid Films, 2013, 546, 358-361.	1.8	14

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37	Thin-film metallization of CuInGaSe2 nanoparticles by supersonic kinetic spraying. Computational Materials Science, 2015, 101, 66-76.	3.0	14
38	Rapid supersonic spraying of Cu(In,Ga)(S,Se)2 nanoparticles to fabricate a solar cell with 5.49% conversion efficiency. Acta Materialia, 2017, 123, 44-54.	7.9	14
39	Universal Passivation Strategy for the Hole Transport Layer/Perovskite Interface via an Alkali Treatment for Highâ€Efficiency Perovskite Solar Cells. Solar Rrl, 2021, 5, 2000793.	5.8	14
40	An amorphous Cuâ€“Inâ€“S nanoparticle-based precursor ink with improved atom economy for CuInSe₂ solar cells with 10.85% efficiency. Green Chemistry, 2017, 19, 1268-1277.	9.0	13
41	Establishment of a primary reference solar cell calibration technique in Korea: methods, results and comparison with WPVS qualified laboratories. Metrologia, 2014, 51, 139-147.	1.2	11
42	Na-Mediated Stoichiometry Control of FeS2 Thin Films: Suppression of Nanoscale S-Deficiency and Improvement of Photoresponse. ACS Applied Materials & Interfaces, 2019, 11, 43244-43251.	8.0	9
43	Effect of Cu content on the photovoltaic properties of wide bandgap CIGS thin-film solar cells prepared by single-stage process. Current Applied Physics, 2016, 16, 1517-1522.	2.4	8
44	Naâ€Induced Conversion of a Notorious Fineâ€Grained Residue Layer into a Working Absorber in Solutionâ€Processed CuInSe 2 Devices. Solar Rrl, 2019, 3, 1900260.	5.8	6
45	CZTSe thin film growth via a co-evaporation process using a ZnSe effusion source. Electronic Materials Letters, 2012, 8, 187-190.	2.2	5
46	Platinum-decorated Cu(InGa)Se2/CdS photocathodes: Optimization of Pt electrodeposition time and pH level. Journal of Alloys and Compounds, 2017, 692, 294-300.	5.5	5
47	Thermally-derived liquid phase involving multiphase Cu(In,Ga)Se₂ nanoparticles for solution-processed inorganic photovoltaic devices. RSC Advances, 2014, 4, 18453-18459.	3.6	4
48	Air-processable high-efficiency CISSe solar cells from DMF molecular solution and their application to perovskite/CISSe tandems. Energy and Environmental Science, 2022, 15, 1479-1492.	30.8	4
49	Three dimensional web-like fibrous CuInS2 film. Applied Surface Science, 2015, 351, 588-593.	6.1	3
50	Semitransparent Single-Junction and Tandem Solar Cells Using Microcrystalline Silicon for Energy-Harvesting Photovoltaic Windows. ACS Applied Materials & Interfaces, 0, , .	8.0	3
51	Optical Characterization and Prediction with Neural Network Modeling of Various Stoichiometries of Perovskite Materials Using a Hyperregression Method. Nanomaterials, 2022, 12, 932.	4.1	3
52	Facile microwave-assisted synthesis of multiphase CuInSe<inf>2</inf> nanoparticles and the role of secondary CuSe phase on photovoltaic device performance. , 2013, , .		0