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	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
2	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
3	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
4	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
5	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
6	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
7	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
8	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
9	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
10	A review on binary metal sulfide heterojunction solar cells. Solar Energy Materials and Solar Cells, 2019, 200, 109963.	6.2	82
11	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
12	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
13	Role of Na in solution-processed CuInSe2 (CISe) devices: A different story for improving efficiency. Nano Energy, 2018, 48, 401-412.	16.0	24
14	Structural, optical and electrical impacts of marcasite in pyrite thin films. Solar Energy, 2018, 159, 930-939.	6.1	22
15	Low-Temperature Processable Charge Transporting Materials for the Flexible Perovskite Solar Cells. Electronic Materials Letters, 2018, 14, 657-668.	2.2	17
16	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
17	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
18	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

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19	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
20	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
21	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
22	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
23	Thin-film metallization of CuInGaSe2 nanoparticles by supersonic kinetic spraying. Computational Materials Science, 2015, 101, 66-76.	3.0	14
24	Three dimensional web-like fibrous CuInS2 film. Applied Surface Science, 2015, 351, 588-593.	6.1	3
25	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
26	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
27	A chelating effect in hybrid inks for non-vacuum-processed CuInSe2 thin films. Journal of Materials Chemistry A, 2014, 2, 5087.	10.3	23
28	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
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	The growth of Cu2âˆ’Se thin films using nanoparticles. Thin Solid Films, 2013, 546, 299-307.	1.8	31
31	Facile microwave-assisted synthesis of multiphase CuInSe<inf>2</inf> nanoparticles and the role of secondary CuSe phase on photovoltaic device performance. , 2013, , .		0
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	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
34	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
35	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
36	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

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37	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
38	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
39	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
40	An 8.2% efficient solution-processed CuInSe2 solar cell based on multiphase CuInSe2 nanoparticles. Energy and Environmental Science, 2012, 5, 7539.	30.8	97
41	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
42	CZTSe thin film growth via a co-evaporation process using a ZnSe effusion source. Electronic Materials Letters, 2012, 8, 187-190.	2.2	5
43	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
44	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
45	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
46	Cu(In,Ga)Se2 thin film solar cells from nanoparticle precursors. Current Applied Physics, 2008, 8, 766-769.	2.4	53
47	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
48	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
49	Nucleation and growth of Cu(In,Ga)Se2 nanoparticles in low temperature colloidal process. Thin Solid Films, 2007, 515, 4036-4040.	1.8	69
50	Effects of PbO on the repassivation kinetics of alloy 690. Corrosion Science, 2006, 48, 1137-1153.	6.6	36
51	Analysis of Repassivation Kinetics of Ti Based on the Point Defect Model. Journal of the Electrochemical Society, 2006, 153, B370.	2.9	20
52	Semitransparent Single-Junction and Tandem Solar Cells Using Microcrystalline Silicon for Energy-Harvesting Photovoltaic Windows. ACS Applied Materials & Interfaces, 0, , .	8.0	3