Eun-Cheol Lee

List of Publications by Year
in descending order

60 papers	1,998 citations	279798 23 h-index	243625 44 g-index
60 all docs	60 docs citations	60 times ranked	2770 citing authors

#	Article	IF	Citations
1	Stability and efficiency improved perovskite solar cells through tuning the hydrophobicity of the hole transport layer with an organic semiconductor. Journal of Materials Chemistry C, 2021, 9, 679-686.	5.5	18
2	Cesium Doping for Performance Improvement of Lead(II)-acetate-Based Perovskite Solar Cells. Materials, 2021, 14, 363.	2.9	5
3	Synergistic Effects of Selfâ€Assembled Monolayers in Solutionâ€Processed 6,13â€Bis(triisopropylsilylethynyl)Pentacene Transistors. ChemPhysChem, 2021, 22, 1706-1711.	2.1	4
4	Performance improvement of inverted two-dimensional perovskite solar cells using a non-fullerene acceptor as the trap passivator. Sustainable Energy and Fuels, 2021, 5, 2354-2361.	4.9	3
5	Morphology control of SnO2 layer by solvent engineering for efficient perovskite solar cells. Solar Energy, 2021, 214, 280-287.	6.1	29
6	Physical Surface Modification of Carbon-Nanotube/Polydimethylsiloxane Composite Electrodes for High-Sensitivity DNA Detection. Nanomaterials, 2021, 11, 2661.	4.1	4
7	Crystallization management for high-performance perovskite solar cells by introducing an antisolvent into the perovskite precursor. Journal of Materials Chemistry C, 2020, 8, 15860-15867.	5.5	17
8	Chlorobenzene-Mediated Control of Crystallization in Perovskite Films for High-Performance Solar Cells. ACS Applied Energy Materials, 2020, 3, 12291-12297.	5.1	12
9	Non-equivalent Tl doping for high performance perovskite solar cells: Crystal quality improvement with enhanced p-type character. Journal of Power Sources, 2020, 479, 228818.	7.8	4
10	Performance improvement of organic bulk-heterojunction solar cells using complementary plasmonic gold nanorods. Organic Electronics, 2020, 84, 105802.	2.6	7
11	High-performance inverted planar perovskite solar cells using a pristine fullerene mixture as an electron-transport layer. Journal of Materials Chemistry C, 2019, 7, 6956-6963.	5.5	29
12	High-Performance Inverted Perovskite Solar Cells Using Doped Poly(triarylamine) as the Hole Transport Layer. ACS Applied Energy Materials, 2019, 2, 1932-1942.	5.1	52
13	Theoretical study on organic dyes with tunable Ï€-spacers for dye-sensitized solar cells: Inspired by the organic polymer photovoltaics. Chemical Physics Letters, 2019, 719, 39-44.	2.6	13
14	High-performance metal-oxide-free perovskite solar cells based on organic electron transport layer and cathode. Organic Electronics, 2019, 64, 195-201.	2.6	12
15	Effects of organic solvents for the phenyl-C61-butyric acid methyl ester layer on the performance of inverted perovskite solar cells. Organic Electronics, 2018, 56, 247-253.	2.6	5
16	Improving performance of organic solar cells by supplying additional acceptors to surface of bulk-heterojunction layers. Journal of Materials Chemistry C, 2018, 6, 2793-2800.	5.5	16
17	Improvement of inverted organic solar cells using acetic acid as an additive for ZnO layer processing. AIP Advances, 2018, 8, .	1.3	2
18	Plasmonic organic bulkâ€“heterojunction solar cells based on hydrophobic gold nanorod insertion into active layers. Journal of Applied Polymer Science, 2018, 135, 45920.	2.6	8

#	Article	IF	Citations
19	Dimethyl-sulfoxide-assisted improvement in the crystallization of lead-acetate-based perovskites for high-performance solar cells. Journal of Materials Chemistry C, 2018, 6, 6705-6713.	5.5	35
20	Alcohol based vapor annealing of a poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) layer for performance improvement of inverted perovskite solar cells. Nanoscale, 2018, 10, 11043-11051.	5.6	20
21	Highly selective, reusable electrochemical impedimetric DNA sensors based on carbon nanotube/polymer composite electrode without surface modification. Biosensors and Bioelectronics, 2018, 118, 16-22.	10.1	36
22	High-performance metal oxide-free inverted perovskite solar cells using poly(bis(4-phenyl)(2,4,6-trimethylphenyl)amine) as the hole transport layer. Journal of Materials Chemistry C, 2018, 6, 6975-6981.	5.5	51
23	Tuning the work function of indium-tin-oxide electrodes for low-temperature-processed, titanium-oxide-free perovskite solar cells. Organic Electronics, 2017, 44, 120-125.	2.6	25
24	A transparent poly(3,4-ethylenedioxylenethiophene):poly(styrene sulfonate) cathode for low temperature processed, metal-oxide free perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 6974-6980.	10.3	60
25	A Molybdenum Disulfide Additive for the Simple and Sensitive Electrochemical Detection of <scp>DNA</scp>. Bulletin of the Korean Chemical Society, 2017, 38, 1174-1178.	1.9	1
26	Functionalized multi-wall carbon nanotubes as an efficient additive for electrochemical DNA sensor. Sensors and Actuators B: Chemical, 2017, 239, 652-659.	7.8	41
27	Correlation between the performance of organic bulkâ€heterojunction solar cells and the molecular structures of alcohol solvents. Journal of Applied Polymer Science, 2017, 134, .	2.6	3
28	Solvent engineering of the electron transport layer using 1,8-diiodooctane for improving the performance of perovskite solar cells. Organic Electronics, 2015, 24, 101-105.	2.6	45
29	Carbon nanotube/polymer composite electrodes for flexible, attachable electrochemical DNA sensors. Biosensors and Bioelectronics, 2015, 71, 414-419.	10.1	48
30	Bimetal coated optical fiber sensors based on surface plasmon resonance induced change in birefringence and intensity. Optics Express, 2014, 22, 5590.	3.4	33
31	Copper nanoparticle incorporated plasmonic organic bulk-heterojunction solar cells. Applied Physics Letters, 2014, 105, 223306.	3.3	32
32	Sequence-specific detection of DNA using functionalized graphene as an additive. Biosensors and Bioelectronics, 2014, 53, 336-339.	10.1	32
33	Improvement of power conversion efficiencies in Cr₂O₃-nanoparticle-embedded polymer solar cells. Applied Physics Letters, 2013, 103, 133306.	3.3	7
34	Improvement of polycarbazole-based organic bulk-heterojunction solar cells using 1,8-diiodooctane. Applied Physics Letters, 2013, 103, .	3.3	11
35	Magnetic interactions between native defects in ZnO: A first-principles study. Journal of the Korean Physical Society, 2013, 63, 2170-2174.	0.7	1
36	Effects of DNA nucleotide adsorption on the conductance of graphene nanoribbons from first principles. Applied Physics Letters, 2012, 100, 153117.	3.3	11

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37	Efficiency improvement in fullerene-layer-inserted organic bulk-heterojunction solar cells. Journal of Applied Physics, 2012, 111, 023104.	2.5	9
38	Electrochemical DNA detection using Hoechst dyes in microfluidic chips. Current Applied Physics, 2012, 12, 1493-1496.	2.4	9
39	Targeted cell adhesion on selectively micropatterned polymer arrays on a poly(dimethylsiloxane) surface. Biomedical Microdevices, 2010, 12, 13-21.	2.8	8
40	Band Gap Enhancement by Covalent Interactions in P3HT/PCBM Photovoltaic Heterojunction. Journal of the Korean Physical Society, 2010, 57, 144-148.	0.7	6
41	Group-velocity Dispersion Effects on Quantum Noise of a Fiber Optical Soliton in Phase Space. Journal of the Korean Physical Society, 2010, 57, 75-78.	0.7	15
42	Mutual deactivation of electrically active F interstitials and O vacancies into fluorine-oxygen-vacancy complexes inSiO2. Physical Review B, 2009, 79, .	3.2	0
43	Synthesis and Characterization of Mesoporous Core-Shell Silica with Incorporation of Dye. Molecular Crystals and Liquid Crystals, 2009, 504, 223-230.	0.9	4
44	Quantum Fluctuation of Ultrashort Pulsed Light in a SemiconductorWaveguide at Just Below Band-gap Energy. Journal of the Korean Physical Society, 2009, 55, 718-722.	0.7	0
45	Quantum noise evolution under optical Kerr effects and two-photon absorption in a semiconductor waveguide. Optics Express, 2008, 16, 3167.	3.4	0
46	Nitrogen-induced interface defects in Si oxynitride. Physical Review B, 2008, 77, .	3.2	15
47	Mechanism for Nitrogen-Originated Negative-Bias Temperature Instability in a MOSFET with a Si-Oxynitride Gate Dielectric. Journal of the Korean Physical Society, 2008, 52, 337-341.	0.7	0
48	P-type doping with group-I elements and hydrogenation effect in ZnO. Physica B: Condensed Matter, 2006, 376-377, 707-710.	2.7	38
49	Effect of chemical bonding on the magnetic stability and magnetic moment in Mn-based binary compounds. Physical Review B, 2005, 72, .	3.2	30
50	H-related defect complexes in HfO2: A model for positive fixed charge defects. Applied Physics Letters, 2004, 84, 3894-3896.	3.3	71
51	Ferromagnetic versus antiferromagnetic interaction in Co-doped ZnO. Physical Review B, 2004, 69, .	3.2	135
52	Possiblep-type doping with group-I elements in ZnO. Physical Review B, 2004, 70, .	3.2	211
53	Atomic model for the electrical deactivation of N in Si oxynitrides. Physica B: Condensed Matter, 2003, 340-342, 974-977.	2.7	1
54	Electrically Deactivating Nearest-Neighbor Donor-Pair Defects in Si. Physical Review Letters, 2003, 91, 125503.	7.8	12

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55	First-principles study of the structural phase transformation of hafnia under pressure. Physical Review B, 2003, 68, .	3.2	155
56	Mechanism for oxidative etching in carbon nanotubes. Physical Review B, 2002, 65, .	3.2	50
57	Electrically inactive nitrogen complex in Si oxynitride. Physical Review B, 2002, 66, .	3.2	11
58	First-principles study of hydrogen adsorption on carbon nanotube surfaces. Physical Review B, 2002, 66, .	3.2	82
59	Compensation mechanism for N acceptors in ZnO. Physical Review B, 2001, 64, .	3.2	357
60	First-principles study of the compensation mechanism in N-doped ZnO. Physica B: Condensed Matter, 2001, 308-310, 912-915.	2.7	47