Jaegab Lee

List of Publications by Year in descending order

85 papers	1,365 citations	394421 19 h-index	377865 34 g-index
87 all docs	87 docs citations	87 times ranked	1949 citing authors

#	Article	IF	Citations
1	Layer-by-layer assembled charge-trap memory devices with adjustable electronic properties. Nature Nanotechnology, 2007, 2, 790-795.	31.5	251
2	Tunable Memory Characteristics of Nanostructured, Nonvolatile Charge Trap Memory Devices Based on a Binary Mixture of Metal Nanoparticles as a Charge Trapping Layer. Advanced Materials, 2009, 21, 178-183.	21.0	97
3	Monte Carlo simulations of the structure of Pt-based bimetallic nanoparticles. Acta Materialia, 2012, 60, 4908-4916.	7.9	71
4	Fibertronic Organic Light-Emitting Diodes toward Fully Addressable, Environmentally Robust, Wearable Displays. ACS Nano, 2020, 14, 1133-1140.	14.6	60
5	Factors Affecting Passivation of Cu(Mg) Alloy Films. Journal of the Electrochemical Society, 2000, 147, 3066.	2.9	42
6	Nonvolatile nanocrystal charge trap flash memory devices using a micellar route to ordered arrays of cobalt nanocrystals. Applied Physics Letters, 2007, 91, 153506.	3.3	42
7	Plasmonically Engineered Textile Polymer Solar Cells for High-Performance, Wearable Photovoltaics. ACS Applied Materials & Interfaces, 2019, 11, 20864-20872.	8.0	37
8	Niobium oxide nanoparticle coreâ€“amorphous carbon shell structure for fast reversible lithium storage. Electrochimica Acta, 2017, 240, 316-322.	5.2	34
9	Aminosilane SAMâ€Assisted Patterning of Poly(3,4â€ethylenedioxythiophene) Nanofilm Robustly Adhered to SiO₂ Substrate. Macromolecular Rapid Communications, 2007, 28, 1574-1580.	3.9	29
10	Design of a MoO x /Au/MoO x transparent electrode for high-performance OLEDs. Organic Electronics, 2016, 36, 61-67.	2.6	29
11	Mobility Enhanced Photoactivity in Solâ^'Gel Grown Epitaxial Anatase TiO₂ Films. Langmuir, 2008, 24, 2695-2698.	3.5	26
12	ITO-free low-cost organic solar cells with highly conductive poly(3,4 ethylenedioxythiophene): p-toluene sulfonate anodes. Solar Energy Materials and Solar Cells, 2011, 95, 3573-3578.	6.2	26
13	Permanent optical doping of amorphous metal oxide semiconductors by deep ultraviolet irradiation at room temperature. Applied Physics Letters, 2010, 96, .	3.3	23
14	Effects of iron(III) p-toluenesulfonate hexahydrate oxidant on the growth of conductive poly(3,4-ethylenedioxythiophene) (PEDOT) nanofilms by vapor phase polymerization. Synthetic Metals, 2011, 161, 1347-1352.	3.9	23
15	The effects of the surface morphology of poly(3,4-ethylenedioxythiophene) electrodes on the growth of pentacene, and the electrical performance of the bottom contact pentacene transistor. Solid-State Electronics, 2012, 67, 70-73.	1.4	23
16	Electrochemical behavior of manganese oxides on flexible substrates for thin film supercapacitors. Electrochimica Acta, 2015, 153, 184-189.	5.2	22
17	Dry patterning of copper films using an O2 plasma and hexafluoroacetylacetone. Thin Solid Films, 2001, 392, 122-127.	1.8	21
18	Effect of Mg content in Cu(Mg)/SiO2/Si multilayers on the resistivity after annealing in an oxygen ambient. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 2972-2977.	2.1	19

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19	Electrochemical lithium storage kinetics of self-organized nanochannel niobium oxide electrodes. Journal of Electroanalytical Chemistry, 2015, 746, 45-50.	3.8	19
20	Plasma pretreatment of the Cu seed layer surface in Cu electroplating. Materials Chemistry and Physics, 2002, 73, 227-234.	4.0	18
21	Effects of defects generated in ALD TiO2 films on electrical properties and interfacial reaction in TiO2/SiO2/Si system upon annealing in vacuum. Metals and Materials International, 2008, 14, 759-765.	3.4	18
22	Selective deposition of TiSi2 on oxide patterned wafers using low pressure chemical vapor deposition. Journal of Electronic Materials, 1991, 20, 331-337.	2.2	17
23	MOCVD of TiN and/or Ti from new precursors. Thin Solid Films, 1998, 320, 15-19.	1.8	17
24	Effects of ion damage on the surface of ITO films during plasma treatment. Applied Surface Science, 2007, 253, 8928-8932.	6.1	16
25	Aminosilane monolayer-assisted patterning of conductive poly(3,4-ethylenedioxythiophene) source/drain electrodes for bottom contact pentacene thin film transistors. Organic Electronics, 2010, 11, 338-343.	2.6	16
26	Strain Relaxation in Solâ˜'Gel Grown Epitaxial Anatase Thin Films. Journal of Physical Chemistry C, 2008, 112, 4205-4208.	3.1	15
27	MoO3/Au/MoO3â€“PEDOT:PSS multilayer electrodes for ITO-free organic solar cells. Materials Science in Semiconductor Processing, 2014, 27, 114-120.	4.0	15
28	Effects of Surface Oxide on the Nitridation Behavior of Aluminum Particles. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 496-504.	2.2	14
29	Effects of Solvents on Poly(3,4-Ethylenedioxythiophene) (PEDOT) Thin Films Deposited on a (3-Aminopropyl)Trimethoxysilane (APS) Monolayer by Vapor Phase Polymerization. Electronic Materials Letters, 2010, 6, 17-22.	2.2	13
30	Pulsed laser chemical vapor deposition of a mixture of W, WO2, and WO3 from W(CO)6 at atmospheric pressure. Thin Solid Films, 2017, 626, 145-153.	1.8	13
31	ITO free MoO 3 /Au/MoO 3 structures using Al 2 O 3 as protective barrier between MoO 3 and PEDOT:PSS in organic solar cells. Renewable Energy, 2014, 71, 193-199.	8.9	12
32	Self-assembled monolayer modified MoO3/Au/MoO3 multilayer anodes for high performance OLEDs. Electronic Materials Letters, 2017, 13, 16-24.	2.2	12
33	Effect of Temperature on Coalescence Behavior of Unsupported Gold Nanoparticles. Electronic Materials Letters, 2019, 15, 133-139.	2.2	12
34	Significantly improved stability of n-octadecyltrichlorosilane self-assembled monolayer by plasma pretreatment on mica. Thin Solid Films, 2008, 516, 940-947.	1.8	11
35	High performance of pentacene organic thin film transistors by doping of iodine on source/drain regions. Organic Electronics, 2013, 14, 1142-1148.	2.6	11
36	Translated structural morphology of conductive polymer nanofilms synthesized by vapor phase polymerization. Synthetic Metals, 2018, 244, 113-119.	3.9	11

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37	Galvanically Replaced, Singleâ€Bodied Lithiumâ€Ion Battery Fabric Electrodes. Advanced Functional Materials, 2020, 30, 1908633.	14.9	11
38	Di- and tri-aminosilane SAM-assisted patterning of highly pure poly(3,4-ethylenedioxythiophene) nanofilms robustly adhered to silicon oxide substrate. Surface and Coatings Technology, 2007, 201, 9426-9431.	4.8	10
39	Design of gate stacks for improved program/erase speed, retention and process margin aiming next generation metal nanocrystal memories. Semiconductor Science and Technology, 2009, 24, 115009.	2.0	10
40	High Performance Flexible Organic Thin Film Transistors (OTFTs) with Octadecyltrichlorsilane/Al₂O₃/Poly(4-vinylphenol) Multilayer Insulators. Journal of Nanoscience and Nanotechnology, 2012, 12, 1348-1352.	0.9	10
41	PEDOT gate electrodes with PVP/Al2O3 dielectrics for stable high-performance organic TFTs. Electronic Materials Letters, 2013, 9, 741-746.	2.2	10
42	Hybrid dielectric layer for low operating voltages of transparent and flexible organic complementary inverter. Electronic Materials Letters, 2015, 11, 252-258.	2.2	10
43	Semitransparent, thin metal grid-based hybrid electrodes for polymer solar cells. Materials Science in Semiconductor Processing, 2014, 23, 104-109.	4.0	9
44	Plasma Enhanced Chemical Vapor Deposition of Blanket TiSi2 on Oxide Patterned Wafers: I . Growth of Silicide. Journal of the Electrochemical Society, 1992, 139, 1159-1165.	2.9	8
45	CH 3 NH 3 PbBr 3 nanocubes-array for solar cell application. Materials Science in Semiconductor Processing, 2018, 74, 361-368.	4.0	8
46	Plasma Enhanced Chemical Vapor Deposition of Blanket TiSi2 on Oxide Patterned Wafers: II . Silicide Properties. Journal of the Electrochemical Society, 1992, 139, 1166-1170.	2.9	7
47	Significantly Improved Adhesion of Poly(3,4-ethylenedioxythiophene) Nanofilms to Amino-Silane Monolayer Pre-Patterned SiO2 Surfaces. Journal of Nanoscience and Nanotechnology, 2007, 7, 3792-3794.	0.9	7
48	Effect of O2Gas during Inductively Coupled O2/Cl2Plasma Etching of Mo and HfO2for Gate Stack Patterning. Japanese Journal of Applied Physics, 2008, 47, 6938-6942.	1.5	7
49	Formation of Cu nanocrystals on 3-mercaptopropyltrimethoxysilane monolayer by pulsed iodine-assisted chemical vapor deposition for nonvolatile memory applications. Applied Physics Letters, 2009, 94, 213508.	3.3	7
50	Effects of Si interlayer on resistance switching of Pt/Si/TiO[sub 2]/Pt structures. Journal of Vacuum Science & Technology B, 2009, 27, 2175.	1.3	7
51	Enhanced Chemical Vapor Deposition of Pt Films on UV-exposed TiO2 Surfaces. Electronic Materials Letters, 2009, 5, 35-38.	2.2	7
52	Indium Tin Oxide-Free PEDOT:PSS/SAM/MoO₃/Au/MoO₃ Multilayer Electrodes for Organic Solar Cells. Journal of Nanoscience and Nanotechnology, 2014, 14, 7779-7783.	0.9	7
53	Mechanical and electrical stability of PEDOT:PTS and Au source/drain electrodes for bottom contact OTFTs on plastic films under bending conditions. Organic Electronics, 2015, 26, 8-14.	2.6	7
54	Tailoring methyl-ammonium lead bromide nanostructure by solvent engineering and their application to high open circuit voltage solar cells. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 126, 114420.	2.7	7

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55	Selective Deposition of Copper with Iodine Assisted Growth of MOCVD on an MPTMS Monolayer Surface at a Low Temperature. Electronic Materials Letters, 2010, 6, 209-213.	2.2	6
56	Effects of Chlorine Contents on Perovskite Solar Cell Structure Formed on CdS Electron Transport Layer Probed by Rutherford Backscattering. Electronic Materials Letters, 2018, 14, 700-711.	2.2	6
57	Fabrication and optimization of nanocube mixed halide perovskite films for solar cell application. Solar Energy, 2020, 201, 209-218.	6.1	6
58	Structural and morphological features of concentric iron oxide/carbon nanotubes obtained from phospholipids. Journal of Materials Chemistry, 2010, 20, 5748.	6.7	5
59	Self-assembled nanolayers as interfacial diffusion barriers for thermally stable and low contact resistance Cu source/drain electrode in a-Si:H TFT-LCDs. Electronic Materials Letters, 2012, 8, 21-25.	2.2	5
60	ITO-free organic solar cell with an PEDOT:PTS/Au/TiO2 grid hybrid electrode as a transparent anode. Current Applied Physics, 2015, 15, S2-S7.	2.4	5
61	Strategically Manipulated Polymer Solar Cells to Incorporate Plasmonically Enhanced Spectral Upconversion Backplane. Advanced Optical Materials, 2020, 8, 2000466.	7.3	5
62	High temperature cracking of tungsten polycide films on quartz substrate. Thin Solid Films, 2000, 370, 307-310.	1.8	4
63	Fabrication of an a-IGZO Thin Film Transistor Using Selective Deposition of Cobalt by the Self-Assembly Monolayer (SAM) Process. Journal of Nanoscience and Nanotechnology, 2011, 11, 787-790.	0.9	4
64	Effects of solvent on the formation of the MUA monolayer on Si and its diffusion barrier properties for Cu metallization. Electronic Materials Letters, 2014, 10, 671-678.	2.2	4
65	The formation of low temperature Cu3Si in Ag(Cu)/Si structure upon annealing and its effects on adhesion and resistivity. Materials Research Society Symposia Proceedings, 2003, 766, 3151.	0.1	4
66	Effects of interfacial layer-by-layer nanolayers on the stability of the Cu TSV: Diffusion barrier, adhesion, conformal coating, and mechanical property. Materials Science in Semiconductor Processing, 2018, 83, 33-41.	4.0	3
67	Effect of Ge doping on the electrical properties of amorphous Znâ€“Snâ€“O thin films. Current Applied Physics, 2020, 20, 1041-1048.	2.4	3
68	In situ electron-doping of MoS2 thin films by embedded MoOxSy particles during chemical vapor deposition. Journal of Materials Science, 2021, 56, 2879-2886.	3.7	3
69	Effects of the PbBr2:PbI2 Molar Ratio on the Formation of Lead Halide Thin Films, and the Ratioâ€™s Application for High Performance and Wide Bandgap Solar Cells. Materials, 2022, 15, 837.	2.9	3
70	Adhesion, passivation, and resistivity of a Ag(Mg) gate electrode for an amorphous silicon thin-film transistor. Journal of Materials Research, 2003, 18, 1441-1446.	2.6	2
71	Effects of an Al interlayer on the formation of Pt film on TiO2/Pt/Si structures. Current Applied Physics, 2011, 11, S111-S114.	2.4	2
72	Consecutive and Selective Chemical Vapor Deposition of Pt/Al Bilayer Electrodes for TiO₂ Resistive Switching Memory. Japanese Journal of Applied Physics, 2013, 52, 10MC08.	1.5	2

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73	A simple process based on NH2- and CH3-terminated monolayers for low contact resistance and adherent Au electrode in bottom-contact OTFTs. Electronic Materials Letters, 2016, 12, 197-204.	2.2	2
74	Synthesis of highly conductive cobalt thin films by LCVD at atmospheric pressure. Materials Science in Semiconductor Processing, 2017, 68, 245-251.	4.0	2
75	Pulsed MOCVD of Cu Seed Layer using a (Hfac)Cu(3,3-Dimethyl-1-Butene) Source Plus H₂ Reactant. Materials Research Society Symposia Proceedings, 2004, 812, F3.21.1.	0.1	1
76	Temperature Dependence of Bis(triisopropylsilylethynyl)-Pentacene Nanofilm Deposited on Octadecyltrichlorosilane Self Assembled Monolayer Surface as a Transistor Channel. Journal of Nanoscience and Nanotechnology, 2010, 10, 3489-3492.	0.9	1
77	A Novel Method for Patterning of Poly(3,4-ethylenedioxythiophene) Films Using UV Exposure-Activated Self-Assembled Monolayers. Journal of Nanoscience and Nanotechnology, 2012, 12, 1457-1460.	0.9	1
78	Improvement of On/Off Ratio in Solution-Processed Graphene-Zinc Oxide Resistive Switching Memory by Blending with Polystyrene. Journal of Nanoscience and Nanotechnology, 2016, 16, 12918-12922.	0.9	1
79	Microstructures, structural, optical, and photovoltaic characteristics of mixed halide perovskite nanowires. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	1
80	Influence of Mg on Resistivity, Adhesion, Agglomeration of Ag(Mg)/SiO2/Si Multilayers. Materials Research Society Symposia Proceedings, 2001, 686, 1.	0.1	0
81	Controllable Feature Sizes of Highly Conductive Poly(3,4-Ethylenedioxythiophene) Nanofilms Patterned on SiO2 Surface. Journal of Nanoscience and Nanotechnology, 2008, 8, 5080-5084.	0.9	0
82	Memory Effect of Low-Temperature Processed ZnO Thin-Film Transistors Having Metallic Nanoparticles as Charge Trapping Elements. Journal of Nanoscience and Nanotechnology, 2012, 12, 1344-1347.	0.9	0
83	Direct contact of indium tin oxide layer to Al(Ni) alloy electrodes for a-Si:H thin film transistors: Effects of Ni alloying on interfacial oxide growth and contact resistance. Thin Solid Films, 2013, 546, 9-13.	1.8	0
84	Dry Patterning of Cu(Mg) Alloy Films Using a Self-Aligned MgO Mask In an Oxygen Plasma Plus H(hfac) Chemistry. Materials Research Society Symposia Proceedings, 2002, 716, 11191.	0.1	0
85	Effects of defects generated in ALD TiO2 films on electrical properties and interfacial reaction in TiO2/SiO2/Si system upon annealing in vacuum. Metals and Materials International, 2008, 14, 759-765.	3.4	0