Jeongkyun Roh

List of Publications by Citations

39 papers	530 citations	13 h-index	22 g-index
42 ext. papers	673 ext. citations	7.7 avg, IF	4.2 L-index

#	Paper	IF	Citations
39	Optically pumped colloidal-quantum-dot lasing in LED-like devices with an integrated optical cavity. *Nature Communications*, **2020**, 11, 271	17.4	52
38	Colloidal quantum dot lasers. *Nature Reviews Materials*, **2021**, 6, 382-401	73.3	52
37	Sub-single-exciton lasing using charged quantum dots coupled to a distributed feedback cavity. *Science*, **2019**, 365, 672-675	33.3	46
36	1 GHz Pentacene Diode Rectifiers Enabled by Controlled Film Deposition on SAM-Treated Au Anodes. *Advanced Electronic Materials*, **2016**, 2, 1500282	6.4	39
35	Toward high-resolution, inkjet-printed, quantum dot light-emitting diodes for next-generation displays. *Journal of the Society for Information Display*, **2016**, 24, 545-551	2.1	37
34	Multifunctional Organic-Semiconductor Interfacial Layers for Solution-Processed Oxide-Semiconductor Thin-Film Transistor. *Advanced Materials*, **2017**, 29, 1607055	24	35
33	Fluorinated CYTOP passivation effects on the electrical reliability of multilayer MoS field-effect transistors. *Nanotechnology*, **2015**, 26, 455201	3.4	34
32	Overcoming tradeoff between mobility and bias stability in organic field-effect transistors according to the self-assembled monolayer chain lengths. *Applied Physics Letters*, **2014**, 104, 173301	3.4	31
31	Enhanced Lifetime and Efficiency of Red Quantum Dot Light-Emitting Diodes with Y-Doped ZnO Sol Gel Electron-Transport Layers by Reducing Excess Electron Injection. *Advanced Quantum Technologies*, **2018**, 1, 1700006	4.3	25
30	Injection-modulated polarity conversion by charge carrier density control via a self-assembled monolayer for all-solution-processed organic field-effect transistors. *Scientific Reports*, **2017**, 7, 46365	4.9	22
29	Photocurable propyl-cinnamate-functionalized polyhedral oligomeric silsesquioxane as a gate dielectric for organic thin film transistors. *Organic Electronics*, **2013**, 14, 2315-2323	3.5	18
28	Effect of nanoscale SubPc interfacial layer on the performance of inverted polymer solar cells based on P3HT/PC71BM. *ACS Applied Materials & Interfaces*, **2011**, 3, 4279-85	9.5	16
27	Threshold Voltage Control of Multilayered MoS Field-Effect Transistors via Octadecyltrichlorosilane and their Applications to Active Matrixed Quantum Dot Displays Driven by Enhancement-Mode Logic Gates. *Small*, **2019**, 15, e1803852	11	14
26	Air stability of PTCDI-C13-based n-OFETs on polymer interfacial layers. *Physica Status Solidi - Rapid Research Letters*, **2013**, 7, 469-472	2.5	13
25	Improved electron injection in all-solution-processed n-type organic field-effect transistors with an inkjet-printed ZnO electron injection layer. *Applied Surface Science*, **2017**, 420, 100-104	6.7	12
24	Thermally curable organic/inorganic hybrid polymers as gate dielectrics for organic thin-film transistors. *Journal of Polymer Science Part A*, **2014**, 52, 3260-3268	2.5	10
23	Colloidal quantum dot light-emitting diodes employing solution-processable tin dioxide nanoparticles in an electron transport layer.. *RSC Advances*, **2020**, 10, 8261-8265	3.7	9

22	Solution-processable integrated CMOS circuits based on colloidal CuInSe quantum dots. *Nature Communications*, **2020**, 11, 5280	17.4	9
21	Double Metal Oxide Electron Transport Layers for Colloidal Quantum Dot Light-Emitting Diodes. *Nanomaterials*, **2020**, 10,	5.4	8
20	Negligible hysteresis of molybdenum disulfide field-effect transistors through thermal annealing. *Journal of Information Display*, **2016**, 17, 103-108	4.1	8
19	Efficiency Improvement of Organic Photovoltaics Adopting Li- and Cd-Doped ZnO Electron Extraction Layers. *IEEE Journal of Photovoltaics*, **2016**, 6, 930-933	3.7	7
18	Highly Stable Organic Transistors on Paper Enabled by a Simple and Universal Surface Planarization Method. *Advanced Materials Interfaces*, **2019**, 6, 1801731	4.6	5
17	Improving Performance of Inverted Blue Quantum-Dot Light-Emitting Diodes by Adopting Organic/Inorganic Double Electron Transport Layers. *Physica Status Solidi - Rapid Research Letters*, **2020**, 14, 1900737	2.5	5
16	Temperature Dependence and Impedance Characteristics of Hybrid Solar Cells Based on Poly(phenylene vinylene): ZnO Nanoparticles With Added Surfactants. *IEEE Journal of Photovoltaics*, **2017**, 7, 1031-1035	3.7	4
15	Vapor-phase-processed fluorinated self-assembled monolayer for organic thin-film transistors. *Journal of the Korean Physical Society*, **2015**, 67, 941-945	0.6	4
14	Polarized Electroluminescence Emission in High-Performance Quantum Rod Light-Emitting Diodes via the Langmuir-Blodgett Technique. *Small*, **2021**, 17, e2101204	11	4
13	Organic complementary ring oscillators using a functional polymer interfacial layer for highly improved oscillation frequency. *Polymer Bulletin*, **2016**, 73, 2531-2537	2.4	3
12	P-59: Toward High Resolution Inkjet-Printed Quantum Dot Light-Emitting Diodes for Next Generation Display. *Digest of Technical Papers SID International Symposium*, **2016**, 47, 1354-1357	0.5	3
11	Low-Frequency Noise Characteristics in Multi-Layer WSe Field Effect Transistors with Different Contact Metals. *Journal of Nanoscience and Nanotechnology*, **2019**, 19, 6422-6428	1.3	2
10	Hole Injection in N-Type Organic Semiconductors by Tuning Metal Work Function with Functional Self-Assembled Monolayers. *Journal of Nanoscience and Nanotechnology*, **2017**, 17, 3378-3381	1.3	2
9	Investigation of Improved Performance for Organic Rectifying Diodes via Electrical Annealing. *IEEE Access*, **2019**, 7, 84082-84090	3.5	1
8	Effect of Variations in the Alkyl Chain Lengths of Self-Assembled Monolayers on the Crystalline-Phase-Mediated Electrical Performance of Organic Field-Effect Transistors.. *ACS Omega*, **2021**, 6, 33639-33644	3.9	0
7	Field-Effect Transistors: Threshold Voltage Control of Multilayered MoS2 Field-Effect Transistors via Octadecyltrichlorosilane and their Applications to Active Matrixed Quantum Dot Displays Driven by Enhancement-Mode Logic Gates (Small 7/2019). *Small*, **2019**, 15, 1970037	11	
6	P-109: Reduced Contact Resistance with MoOx Injection Layer for Thin Film Transistors Based on Organic Semiconductors with Deep HOMO Level. *Digest of Technical Papers SID International Symposium*, **2016**, 47, 1535-1538	0.5	
5	P-21: n-type Organic Thin Film Transistors with High Operational Stability. *Digest of Technical Papers SID International Symposium*, **2014**, 45, 1021-1023	0.5	

4	P.64: WITHDRAWN: P.65: The Effect of Surface Polarity of Gate Dielectric Buffer Layer on Operational Stability in Organic Thin Film Transistors. *Digest of Technical Papers SID International Symposium*, **2013**, 44, 1236-1238	0.5
3	Top-Gate Field-Effect Transistor as a Testbed for Evaluating the Photostability of Organic Photovoltaic Polymers. *Solar Rrl*,2100962	7.1
2	Electron Clouding Effect for Improvement of Electron Injection in a Solution-Processed Organic Diode with Dipolar Self-Assembled Monolayers. *Journal of Nanoscience and Nanotechnology*, **2017**, 17, 7275-7279	1.3
1	Polarized Electroluminescence Emission in High-Performance Quantum Rod Light-Emitting Diodes via the Langmuir-Blodgett Technique (Small 32/2021). *Small*, **2021**, 17, 2170165	11