

# Choongik Kim

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

94  
papers

2,999  
citations

28  
h-index

53  
g-index

99  
ext. papers

3,360  
ext. citations

6.7  
avg, IF

5.09  
L-index

#	Paper	IF	Citations
94	Asymmetric dithieno[3,2-b:2',3'-d]thiophene derivatives as solution-processable small molecular organic semiconductors for organic thin film transistors. <i>Thin Solid Films</i> , <b>2022</b> , 745, 139112	2.2	2
93	Side chain engineering of [1]benzothieno[3,2-b]benzothiophene (BTBT)-based semiconductors for organic field-effect transistors. <i>Synthetic Metals</i> , <b>2022</b> , 285, 117022	3.6	2
92	Sustainable approaches in the design of dielectric materials for organic thin-film transistors <b>2022</b> , 179-208		0
91	Meso-Extended/Deficient BODIPYs and Low-Band-Gap Donor-Acceptor Copolymers for Organic Optoelectronics. <i>ACS Applied Polymer Materials</i> , <b>2022</b> , 4, 1991-2005	4.3	1
90	Green solvent-processed complementary-like inverters based on ambipolar organic thin-film transistors. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2021</b> ,	6.3	1
89	Development of Dithieno[3,2-b:2',3'-d]thiophene (DTT) Derivatives as Solution-Processable Small Molecular Semiconductors for Organic Thin Film Transistors. <i>Coatings</i> , <b>2021</b> , 11, 1222	2.9	3
88	Synthesis and characterization of benzo[b]thieno[2,3-d]thiophene (BTT) derivatives as solution-processable organic semiconductors for organic field-effect transistors. <i>Synthetic Metals</i> , <b>2021</b> , 282, 116944	3.6	3
87	Oligofuran-Benzothiadiazole Co-oligomers: Synthesis, Optoelectronic Properties and Reactivity. <i>Organic Materials</i> , <b>2021</b> , 03, 303-308	1.9	
86	Versatile Solution-Processed Organic-Inorganic Hybrid Superlattices for Ultraflexible and Transparent High-Performance Optoelectronic Devices. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2103285	15.6	8
85	Boosting the proton conduction using protonated imidazole for advanced ion conducting membrane. <i>Journal of Membrane Science</i> , <b>2021</b> , 620, 118904	9.6	4
84	Solution-processed flexible nonvolatile organic field-effect transistor memory using polymer electret. <i>Organic Electronics</i> , <b>2021</b> , 99, 106331	3.5	2
83	Enhancing gas-liquid volumetric mass transfer coefficient. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2020</b> , 87, 1-17	6.3	3
82	Green solvents for organic thin-film transistor processing. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 5786-5794	18	
81	Organic materials as a passivation layer for metal oxide semiconductors. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 14983-14995	7.1	9
80	Green solvent-processed organic electronic devices. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 15027-15047	17	14
79	Microstructural modulation of organic passivation layers for metal oxide semiconductors to achieve high bias stability. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 11209-11222	7.1	2
78	Synthesis and Characterization of Fluorenone-Based Donor-Acceptor Small Molecule Organic Semiconductors for Organic Field-Effect Transistors. <i>Macromolecular Research</i> , <b>2020</b> , 28, 654-659	1.9	5

77	Solution-processable fluorene derivative for organic thin-film transistors. <i>Organic Electronics</i> , <b>2020</b> , 76, 105464	3.5	13
76	Solution-Processed Nonvolatile Organic Transistor Memory Based on Semiconductor Blends. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 8327-8336	9.5	41
75	A Solution-Processable meso-Phenyl-BODIPY-Based n-Channel Semiconductor with Enhanced Fluorescence Emission. <i>ChemPlusChem</i> , <b>2019</b> , 84, 1423-1431	2.8	10
74	Ambipolar thin-film transistors based on organic semiconductor blend. <i>Synthetic Metals</i> , <b>2019</b> , 253, 40-43.6	3.6	11
73	High Throughput Bar-Coating Processed Organic-Inorganic Hybrid Multi-Layers for Gas Barrier Thin-Films. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2019</b> , 19, 4299-4304	1.3	3
72	Effect of acidity of oxide support on the activity and stability of Nitrido diiron phthalocyanine complex. <i>Chemical Engineering Research and Design</i> , <b>2019</b> , 144, 429-433	5.5	1
71	Bulk charge-transfer doping of amorphous metal oxide: fullerene blends for solution-processed amorphous indium zinc oxide thin-film transistors. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 10635-10641	7.1	7
70	Synthesis and characterization of fluorene derivatives as organic semiconductors for organic field-effect transistor. <i>Molecular Crystals and Liquid Crystals</i> , <b>2019</b> , 690, 56-66	0.5	5
69	Solution-processable small molecules for bulk heterojunction ambipolar thin-film transistors and complementary-like inverters. <i>Dyes and Pigments</i> , <b>2019</b> , 163, 725-733	4.6	13
68	Polyurethane triblock copolymer gate dielectrics for low-voltage organic thin-film transistors. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2019</b> , 71, 460-464	6.3	2
67	BODIPY-Based Semiconducting Materials for Organic Bulk Heterojunction Photovoltaics and Thin-Film Transistors. <i>ChemPlusChem</i> , <b>2019</b> , 84, 18-37	2.8	46
66	2-Thiophene[1]benzothieno[3,2-b]benzothiophene derivatives as solution-processable organic semiconductors for organic thin-film transistors. <i>Synthetic Metals</i> , <b>2018</b> , 235, 153-159	3.6	20
65	Optimized Activation of Solution-Processed Amorphous Oxide Semiconductors for Flexible Transparent Conductive Electrodes. <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1700386	6.4	10
64	Semiconducting Copolymers Based on meso-Substituted BODIPY for Inverted Organic Solar Cells and Field-Effect Transistors. <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1700354	6.4	13
63	Solution-processable dithieno[3,2-b:2',3'-d]thiophene derivatives for organic thin-film transistors and complementary-like inverters. <i>Organic Electronics</i> , <b>2018</b> , 52, 356-363	3.5	20
62	Metal Oxide Semiconductors: Solution-Processed Rad-Hard Amorphous Metal-Oxide Thin-Film Transistors (Adv. Funct. Mater. 47/2018). <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1870333	15.6	
61	Solution-Processed Rad-Hard Amorphous Metal-Oxide Thin-Film Transistors. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1802717	15.6	28
60	A Ladder-Type Organosilicate Copolymer Gate Dielectric Materials for Organic Thin-Film Transistors. <i>Coatings</i> , <b>2018</b> , 8, 236	2.9	1

59	Organic Electronics: Semiconducting Copolymers Based on meso-Substituted BODIPY for Inverted Organic Solar Cells and Field-Effect Transistors (Adv. Electron. Mater. 10/2018). <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1870049	6.4	0
58	Triisopropylsilylethynyl-substituted indenofluorenes: carbonyl versus dicyanovinylene functionalization in one-dimensional molecular crystals and solution-processed n-channel OFETs. <i>Organic Chemistry Frontiers</i> , <b>2018</b> , 5, 2912-2924	5.2	14
57	Solution-Processable Diketopyrrolopyrrole Derivatives as Organic Semiconductors for Organic Thin-Film Transistors. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2018</b> , 18, 705-712	1.3	2
56	A Solution-Processable Liquid-Crystalline Semiconductor for Low-Temperature-Annealed Air-Stable N-Channel Field-Effect Transistors. <i>ChemPhysChem</i> , <b>2017</b> , 18, 850-861	3.2	17
55	Ultralow bandgap molecular semiconductors for ambient-stable and solution-processable ambipolar organic field-effect transistors and inverters. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 2368-2379	7.1	39
54	Effect of methane-sugar interaction on the solubility of methane in an aqueous solution. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 500, 113-118	9.3	4
53	Benzothiadiazole-Based Small-Molecule Semiconductors for Organic Thin-Film Transistors and Complementary-like Inverters. <i>ChemPlusChem</i> , <b>2017</b> , 82, 742-749	2.8	7
52	Cooperative behavior of perfluoro carboxylic acid on cyclohexane oxidation catalyzed by Ehtrido diiron phthalocyanine complex. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2017</b> , 53, 371-374	6.3	8
51	Cationic surfactant as methane-water mass transfer enhancer for the fermentation of <i>Methylosinus trichosporium</i> OB3b. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2017</b> , 53, 228-232	6.3	2
50	Synthesis and Characterization of Quinoxaline Derivative as Organic Semiconductors for Organic Thin-Film Transistors. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2017</b> , 17, 5530-5538	1.3	7
49	A new rod-shaped BODIPY-acetylene molecule for solution-processed semiconducting microribbons in n-channel organic field-effect transistors. <i>New Journal of Chemistry</i> , <b>2017</b> , 41, 6232-6240	3.6	19
48	Synthesis and Characterization of Diketopyrrolopyrrole Derivatives as Organic Semiconductors for Organic Thin-Film Transistors. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2017</b> , 17, 4312-4317	1.3	2
47	Solution-Processable Dithienothiophenoquinoid (DTTQ) Structures for Ambient-Stable n-Channel Organic Field Effect Transistors. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1606761	15.6	44
46	Squaraine-Based Polymers: Toward Optimized Structures for Optoelectronic Devices. <i>Macromolecular Chemistry and Physics</i> , <b>2017</b> , 218, 1600487	2.6	15
45	Multifunctional Organic-Semiconductor Interfacial Layers for Solution-Processed Oxide-Semiconductor Thin-Film Transistor. <i>Advanced Materials</i> , <b>2017</b> , 29, 1607055	24	35
44	Enhanced mass transfer rate and solubility of methane via addition of alcohols for <i>Methylosinus trichosporium</i> OB3b fermentation. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2017</b> , 46, 350-355	6.3	8
43	Solution-processable end-functionalized tetrathienoacene semiconductors: Synthesis, characterization and organic field effect transistors applications. <i>Dyes and Pigments</i> , <b>2017</b> , 145, 584-590	4.6	11
42	Synthesis and characterization of 2,7-diethynyl-benzo[b]benzo[4,5]thieno[2,3-d]thiophene derivative as organic semiconductors for organic thin-film transistors. <i>Synthetic Metals</i> , <b>2016</b> , 220, 599-605	3.6	3

41	Enhanced mass transfer rate of methane via hollow fiber membrane modules for <i>Methylosinus trichosporium</i> OB3b fermentation. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2016</b> , 39, 149-152	6.3	12
40	Synthesis and characterization of solution-processable diketopyrrolopyrrole (DPP) and tetrathienothiophene (TTA)-based small molecules for organic thin film transistors and organic photovoltaic cells. <i>Dyes and Pigments</i> , <b>2016</b> , 133, 280-291	4.6	18
39	Design, synthesis, and characterization of $\mu$ -disubstituted indeno[1,2-b]fluorene-6,12-dione-thiophene molecular semiconductors. Enhancement of ambipolar charge transport through synthetic tailoring of alkyl substituents. <i>RSC Advances</i> , <b>2016</b> , 6, 212-226	3.7	32
38	Investigation and prediction of the salting-out effect of methane in various aqueous electrolyte solutions. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2016</b> , 34, 117-121	6.3	12
37	Enhanced mass transfer rate of methane in aqueous phase via methyl-functionalized SBA-15. <i>Journal of Molecular Liquids</i> , <b>2016</b> , 215, 154-160	6	16
36	Functionalized soluble triethylsilylethynyl anthradithiophenes (TESADTs) for organic electronic devices. <i>Dyes and Pigments</i> , <b>2016</b> , 126, 261-269	4.6	3
35	Enhancement of methane-water volumetric mass transfer coefficient by inhibiting bubble coalescence with electrolyte. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2016</b> , 33, 326-329	6.3	16
34	Solution-Processable BODIPY-Based Small Molecules for Semiconducting Microfibers in Organic Thin-Film Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 14077-87	9.5	44
33	Gas-liquid mass transfer coefficient of methane in bubble column reactor. <i>Korean Journal of Chemical Engineering</i> , <b>2015</b> , 32, 1060-1063	2.8	22
32	Multi-layered nanocomposite dielectrics for high density organic memory devices. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 043302	3.4	8
31	Synthesis and characterization of carbazole- and $\beta$ -carboline-based thiophene derivatives as organic semiconductors for organic thin-film transistors. <i>Dyes and Pigments</i> , <b>2015</b> , 114, 78-84	4.6	17
30	Diperfluorophenyl Fused Thiophene Semiconductors for n-Type Organic Thin Film Transistors (OTFTs). <i>Advanced Electronic Materials</i> , <b>2015</b> , 1, 1500098	6.4	33
29	Asymmetric fused thiophenes for field-effect transistors: crystal structure-film microstructure-transistor performance correlations. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 8892-8902	7.1	36
28	Functionalized benzothieno[3,2 b]thiophenes (BTTs) for high performance organic thin-film transistors (OTFTs). <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 7599	7.1	14
27	Enhanced Performance of Pseudo-Bilayer Organic Photovoltaic Devices via Small Molecule Doping. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 9958-9965	3.8	10
26	Probing the surface viscoelasticity of polymer films <b>2014</b> , 26, 29-37		1
25	Fused-Thiophene Based Materials for Organic Photovoltaics and Dye-Sensitized Solar Cells. <i>Polymers</i> , <b>2014</b> , 6, 2645-2669	4.5	61
24	Solution-Processed Small-Molecule Bulk Heterojunction Ambipolar Transistors. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 2057-2063	15.6	51

23	Biocatalytic conversion of methane to methanol as a key step for development of methane-based biorefineries. <i>Journal of Microbiology and Biotechnology</i> , <b>2014</b> , 24, 1597-605	3.3	54
22	Enhanced performance of solution-processed TESPE-ADT thin-film transistors. <i>ChemPhysChem</i> , <b>2013</b> , 14, 2772-6	3.2	6
21	Enhanced performance of benzothieno[3,2-b]thiophene (BTT)-based bottom-contact thin-film transistors. <i>Chemistry - A European Journal</i> , <b>2013</b> , 19, 3721-8	4.8	36
20	Anthracenedicarboximide-based semiconductors for air-stable, n-channel organic thin-film transistors: materials design, synthesis, and structural characterization. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 4459-4472		49
19	High-performance bottom-contact organic thin-film transistors based on benzo[d,d']thieno[3,2-b;4,5-b']dithiophenes (BTDTs) derivatives. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2012</b> , 4, 6992-8	9.5	19
18	Silver nanowire-polymer composite electrode for high performance solution-processed thin-film transistors. <i>Organic Electronics</i> , <b>2012</b> , 13, 1881-1886	3.5	31
17	Influence of polymer dielectric surface energy on thin-film transistor performance of solution-processed triethylsilylethynyl anthradithiophene (TES-ADT). <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2012</b> , 6, 71-73	2.5	6
16	First Tetrabutylanthradithiophene (TBADT) Derivatives for Solution-Processed Thin-Film Transistors. <i>Synlett</i> , <b>2011</b> , 2011, 2151-2156	2.2	2
15	Novel Semiconductors Based on Functionalized Benzo[d,d']thieno[3,2-b;4,5-b']dithiophenes and the Effects of Thin Film Growth Conditions on Organic Field Effect Transistor Performance. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 5031-5041	9.6	43
14	Solution-processable low-molecular weight extended arylacetylenes: versatile p-type semiconductors for field-effect transistors and bulk heterojunction solar cells. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 6108-23	16.4	145
13	Pentacene transistors fabricated on photocurable polymer gate dielectrics: tuning surface viscoelasticity and device response. <i>Advanced Materials</i> , <b>2010</b> , 22, 342-6	24	30
12	Stretchable microfluidic radiofrequency antennas. <i>Advanced Materials</i> , <b>2010</b> , 22, 2749-52	24	337
11	Functionalized dithieno[2,3-b:3',2'-d]thiophenes (DTTs) for organic thin-film transistors. <i>Organic Electronics</i> , <b>2010</b> , 11, 801-813	3.5	62
10	Novel soluble pentacene and anthradithiophene derivatives for organic thin-film transistors. <i>Organic Electronics</i> , <b>2010</b> , 11, 1363-1375	3.5	54
9	Probing the surface glass transition temperature of polymer films via organic semiconductor growth mode, microstructure, and thin-film transistor response. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 9122-32	16.4	55
8	Low-Dimensional Arylacetylenes for Solution-Processable Organic Field-Effect Transistors. <i>Chemistry of Materials</i> , <b>2009</b> , 21, 2592-2594	9.6	52
7	One-pot [1+1+1] synthesis of dithieno[2,3-b:3'Sd]thiophene (DTT) and their functionalized derivatives for organic thin-film transistors. <i>Chemical Communications</i> , <b>2009</b> , 1846-8	5.8	80
6	Printable cross-linked polymer blend dielectrics. Design strategies, synthesis, microstructures, and electrical properties, with organic field-effect transistors as testbeds. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 6867-78	16.4	111

- 5 Functionalized anthradithiophenes for organic field-effect transistors. *Journal of Materials Chemistry*, **2008**, 18, 1029 98
- 4 Polymer gate dielectric surface viscoelasticity modulates pentacene transistor performance. *Science*, **2007**, 318, 76-80 333 344
- 3 Interfacial Phenomena Affecting Charge Transport In Small Molecule Organic Thin-Film Transistors. *Materials Research Society Symposia Proceedings*, **2006**, 965, 1
- 2 Gate dielectric chemical structure-organic field-effect transistor performance correlations for electron, hole, and ambipolar organic semiconductors. *Journal of the American Chemical Society*, **2006**, 128, 12851-69 164 418
- 1 Electrical defect passivation of nanocrystalline In-Ga-O thin film transistor with organic-inorganic superlattice structure. *Composite Interfaces*, 1-10 23