Bjrn Lssem

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.

137	9,588	41	96
papers	citations	h-index	g-index
144	10,334	7.4	6.2
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
137	Ionic liquid crystal elastomers-based flexible organic electrochemical transistors: Effect of director alignment of the solid electrolyte. *Applied Physics Reviews*, **2022**, 9, 011415	17.3	3
136	Top-contact organic electrochemical transistors. *AIP Advances*, **2022**, 12, 045310	1.5	0
135	The influence of contact material and flat-band voltage on threshold voltage of organic field-effect transistors. *Organic Electronics*, **2022**, 105, 106483	3.5	
134	Organic Doping at Ultralow Concentrations. *Advanced Optical Materials*, **2021**, 9, 2100089	8.1	1
133	Device Engineering in Organic Electrochemical Transistors toward Multifunctional Applications. *ACS Applied Electronic Materials*, **2021**, 3, 2434-2448	4	6
132	Organic Electronics and Beyond. *Advanced Optical Materials*, **2021**, 9, 2101108	8.1	1
131	Tuning the Transconductance of Organic Electrochemical Transistors. *Advanced Functional Materials*, **2021**, 31, 2004939	15.6	15
130	Finding the equilibrium of organic electrochemical transistors. *Nature Communications*, **2020**, 11, 2515	17.4	36
129	Analytic Device Model of Organic Field-Effect Transistors with Doped Channels. *ACS Applied Materials & Interfaces*, **2020**, 12, 49857-49865	9.5	2
128	Suppressing Base Currents in Organic Permeable-Base Transistors by Anodization of the Base Electrode. *ACS Applied Electronic Materials*, **2019**, 1, 1756-1761	4	3
127	Modeling tunnel currents in organic permeable-base transistors. *Synthetic Metals*, **2019**, 252, 82-90	3.6	5
126	Doped N-Type Organic Field-Effect Transistors Based on Faux-Hawk Fullerene. *Advanced Electronic Materials*, **2019**, 5, 1900109	6.4	8
125	Vertical Organic Tunnel Field-Effect Transistors. *ACS Applied Electronic Materials*, **2019**, 1, 1506-1516	4	1
124	Electroresponsive Ionic Liquid Crystal Elastomers. *Macromolecular Rapid Communications*, **2019**, 40, e1900899	4.2	28
123	Stability of organic permeable base transistors. *Applied Physics Letters*, **2019**, 115, 193301	3.4	3
122	Scaling of High-Performance Organic Permeable Base Transistors. *Advanced Electronic Materials*, **2019**, 5, 1800728	6.4	10
121	Beyond 100% doping efficiency. *Nature Materials*, **2019**, 18, 93-94	27	7

120	Tuning charge carrier transport and optical birefringence in liquid-crystalline thin films: A new design space for organic light-emitting diodes. *Scientific Reports*, **2018**, 8, 699	4.9	22
119	Doped bottom-contact organic field-effect transistors. *Nanotechnology*, **2018**, 29, 284001	3.4	6
118	Organic Electrochemical Transistors Based on Room Temperature Ionic Liquids: Performance and Stability. *Physica Status Solidi (A) Applications and Materials Science*, **2018**, 215, 1800631	1.6	13
117	Patterning organic transistors by dry-etching: The double layer lithography. *Organic Electronics*, **2017**, 45, 124-130	3.5	13
116	Reaching saturation in patterned source vertical organic field effect transistors. *Journal of Applied Physics*, **2017**, 121, 204503	2.5	24
115	Removing the current-limit of vertical organic field effect transistors. *Journal of Applied Physics*, **2017**, 122, 195502	2.5	7
114	Principle of topography-directed inkjet printing for functional micro-tracks in flexible substrates. *Journal of Applied Physics*, **2017**, 121, 244902	2.5	3
113	Minority Currents in n-Doped Organic Transistors. *ACS Applied Materials & Interfaces*, **2016**, 8, 32432-32439	9.5	12
112	Passivation of Molecular n-Doping: Exploring the Limits of Air Stability. *Advanced Functional Materials*, **2016**, 26, 3730-3737	15.6	34
111	Reduced contact resistance in top-contact organic field-effect transistors by interface contact doping. *Applied Physics Letters*, **2016**, 108, 103303	3.4	30
110	Charge trapping in doped organic Zener diodes. *Organic Electronics*, **2016**, 39, 77-84	3.5	3
109	Doped Organic Transistors. *Chemical Reviews*, **2016**, 116, 13714-13751	68.1	378
108	Contact Resistance Effects in Highly Doped Organic Electrochemical Transistors. *Advanced Materials*, **2016**, 28, 8766-8770	24	38
107	Degradation Mechanisms and Reactions in Organic Light-Emitting Devices. *Chemical Reviews*, **2015**, 115, 8449-503	68.1	395
106	Doped Organic Semiconductors: Trap-Filling, Impurity Saturation, and Reserve Regimes. *Advanced Functional Materials*, **2015**, 25, 2701-2707	15.6	123
105	Controlling morphology: A vertical organic transistor with a self-structured permeable base using the bottom electrode as seed layer. *Applied Physics Letters*, **2015**, 107, 033301	3.4	12
104	Advanced Organic Permeable-Base Transistor with Superior Performance. *Advanced Materials*, **2015**, 27, 7734-9	24	24
103	Vertical organic transistors. *Journal of Physics Condensed Matter*, **2015**, 27, 443003	1.8	47

102	Organic Junction Field-Effect Transistor. *Advanced Functional Materials*, **2014**, 24, 1011-1016	15.6	9
101	Functionalized p-dopants as self-assembled monolayers for enhanced charge carrier injection in organic electronic devices. *Organic Electronics*, **2014**, 15, 654-660	3.5	18
100	Feel the Heat: Nonlinear Electrothermal Feedback in Organic LEDs. *Advanced Functional Materials*, **2014**, 24, 3367-3374	15.6	37
99	Effect of trap states on the electrical doping of organic semiconductors. *Organic Electronics*, **2014**, 15, 16-21	3.5	26
98	Engineering Blue Fluorescent Bulk Emitters for OLEDs: Triplet Harvesting by Green Phosphors. *Chemistry of Materials*, **2014**, 26, 2414-2426	9.6	16
97	Performance and lifetime of vacuum deposited organic light-emitting diodes: Influence of residual gases present during device fabrication. *Organic Electronics*, **2014**, 15, 3251-3258	3.5	11
96	Molecular doping for control of gate bias stress in organic thin film transistors. *Applied Physics Letters*, **2014**, 104, 013507	3.4	33
95	Beyond conventional organic transistors: novel approaches with improved performance and stability **2014**,		3
94	Color-stable, ITO-free white organic light-emitting diodes with enhanced efficiency using solution-processed transparent electrodes and optical outcoupling layers. *Organic Electronics*, **2014** , 15, 1028-1034	3.5	33
93	Self-passivation of molecular n-type doping during air exposure using a highly efficient air-instable dopant. *Physica Status Solidi (A) Applications and Materials Science*, **2013**, 210, 2188-2198	1.6	15
92	White organic light-emitting diodes: Status and perspective. *Reviews of Modern Physics*, **2013**, 85, 1245-1293	40.5	458
91	Nano-particle based scattering layers for optical efficiency enhancement of organic light-emitting diodes and organic solar cells. *Journal of Applied Physics*, **2013**, 113, 204502	2.5	125
90	Quantification of deep hole-trap filling by molecular p-doping: Dependence on the host material purity. *Organic Electronics*, **2013**, 14, 2348-2352	3.5	30
89	High mobility N-type transistors based on solution-sheared doped 6,13-bis(triisopropylsilylethynyl)pentacene thin films. *Advanced Materials*, **2013**, 25, 4663-7	24	86
88	Organic light-emitting diodes (OLEDs) **2013**, 508-534		3
87	Chemical degradation mechanisms of highly efficient blue phosphorescent emitters used for organic light emitting diodes. *Organic Electronics*, **2013**, 14, 115-123	3.5	112
86	Doping of organic semiconductors. *Physica Status Solidi (A) Applications and Materials Science*, **2013**, 210, 9-43	1.6	425
85	Reverse breakdown behavior in organic pin-diodes comprising C60 and pentacene: Experiment and theory. *Organic Electronics*, **2013**, 14, 193-199	3.5	14

84	Straight-forward control of the degree of micro-cavity effects in organic light-emitting diodes based on a thin striped metal layer. *Organic Electronics*, **2013**, 14, 2444-2450	3.5	9
83	Enhancing the efficiency of alternating current driven organic light-emitting devices by optimizing the operation frequency. *Organic Electronics*, **2013**, 14, 809-813	3.5	27
82	Molecular-scale simulation of electroluminescence in a multilayer white organic light-emitting diode. *Nature Materials*, **2013**, 12, 652-8	27	129
81	High-performance vertical organic transistors. *Small*, **2013**, 9, 3670-7	11	60
80	p-Channel field-effect transistors based on C60 doped with molybdenum trioxide. *ACS Applied Materials & Interfaces*, **2013**, 5, 2337-41	9.5	19
79	Color in the corners: ITO-free white OLEDs with angular color stability. *Advanced Materials*, **2013**, 25, 4006-13	24	212
78	Quantitative allocation of Bragg scattering effects in highly efficient OLEDs fabricated on periodically corrugated substrates. *Optics Express*, **2013**, 21, 16319-30	3.3	33
77	Enhanced and balanced efficiency of white bi-directional organic light-emitting diodes. *Optics Express*, **2013**, 21, 28040-7	3.3	10
76	Highly efficient pin-type OLEDs **2013**, 173-191		1
75	Investigation of triplet harvesting and outcoupling efficiency in highly efficient two-color hybrid white organic light-emitting diodes. *Physica Status Solidi (A) Applications and Materials Science*, **2013** , 210, 1467-1475	1.6	34
74	Self-heating, bistability, and thermal switching in organic semiconductors. *Physical Review Letters*, **2013**, 110, 126601	7.4	35
73	Pentacene Schottky diodes studied by impedance spectroscopy: Doping properties and trap response. *Physical Review B*, **2013**, 88,	3.3	59
72	Bi-directional organic light-emitting diodes with nanoparticle-enhanced light outcoupling. *Laser and Photonics Reviews*, **2013**, 7, 1079-1087	8.3	15
71	Doped organic transistors operating in the inversion and depletion regime. *Nature Communications*, **2013**, 4, 2775	17.4	146
70	Structural phase transition in pentacene caused by molecular doping and its effect on charge carrier mobility. *Organic Electronics*, **2012**, 13, 58-65	3.5	97
69	Hydrofluoroethers as heat-transfer fluids for OLEDs: Operational range, stability, and efficiency improvement. *Organic Electronics*, **2012**, 13, 356-360	3.5	29
68	Direct structuring of C60 thin film transistors by photo-lithography under ambient conditions. *Organic Electronics*, **2012**, 13, 506-513	3.5	23
67	Organic pin-diodes approaching ultra-high-frequencies. *Organic Electronics*, **2012**, 13, 1114-1120	3.5	24

66	Novel Approach for Alternating Current (AC)-Driven Organic Light-Emitting Devices. *Advanced Functional Materials*, **2012**, 22, 210-217	15.6	68
65	Influence of phosphorescent dopants in organic light-emitting diodes with an organic homojunction. *Applied Physics Letters*, **2012**, 101, 243303	3.4	13
64	Analysis of the external and internal quantum efficiency of multi-emitter, white organic light emitting diodes. *Applied Physics Letters*, **2012**, 101, 143304	3.4	20
63	Storage of charge carriers on emitter molecules in organic light-emitting diodes. *Physical Review B*, **2012**, 86,	3.3	81
62	Highly efficient white top-emitting organic light-emitting diodes comprising laminated microlens films. *Nano Letters*, **2012**, 12, 424-8	11.5	121
61	Ultra-bright alternating current organic electroluminescence. *Organic Electronics*, **2012**, 13, 1589-1593	3.5	26
60	Chemical degradation processes of highly stable red phosphorescent organic light emitting diodes. *Organic Electronics*, **2012**, 13, 1900-1907	3.5	25
59	Coupled plasmonic modes in organic planar microcavities. *Applied Physics Letters*, **2012**, 100, 253301	3.4	11
58	A high performance liquid chromatography method to determine phenanthroline derivatives used in OLEDs and OSCs. *Synthetic Metals*, **2012**, 162, 1834-1838	3.6	4
57	Comparing the emissive dipole orientation of two similar phosphorescent green emitter molecules in highly efficient organic light-emitting diodes. *Applied Physics Letters*, **2012**, 101, 253304	3.4	107
56	Efficiency and rate of spontaneous emission in organic electroluminescent devices. *Physical Review B*, **2012**, 85,	3.3	198
55	Singlet exciton diffusion length in organic light-emitting diodes. *Physical Review B*, **2012**, 85,	3.3	43
54	Combined effects of microcavity and dielectric capping layer on bidirectional organic light-emitting diodes. *Optics Letters*, **2012**, 37, 2007-9	3	4
53	Controlled formation of charge depletion zones by molecular doping in organic pin-diodes and its description by the Mott-Schottky relation. *Journal of Applied Physics*, **2012**, 111, 123722	2.5	22
52	Lambertian white top-emitting organic light emitting device with carbon nanotube cathode. *Journal of Applied Physics*, **2012**, 112, 114505	2.5	20
51	Organic light-emitting diodes for lighting: High color quality by controlling energy transfer processes in host-guest-systems. *Journal of Applied Physics*, **2012**, 111, 033102	2.5	41
50	High brightness alternating current electroluminescence with organic light emitting material. *Applied Physics Letters*, **2012**, 100, 103307	3.4	36
49	Fermi level shift and doping efficiency in p-doped small molecule organic semiconductors: A photoelectron spectroscopy and theoretical study. *Physical Review B*, **2012**, 86,	3.3	135

48	Non-volatile organic memory devices comprising SiO2 and C60 showing 104 switching cycles. *Applied Physics Letters*, **2012**, 100, 193301	3.4	14
47	An all C60 vertical transistor for high frequency and high current density applications. *Applied Physics Letters*, **2012**, 101, 213303	3.4	41
46	Bidirectional operation of vertical organic triodes. *Journal of Applied Physics*, **2012**, 111, 044507	2.5	19
45	Improvement of voltage and charge balance in inverted top-emitting organic electroluminescent diodes comprising doped transport layers by thermal annealing. *Applied Physics Letters*, **2011**, 98, 083304	3.4	50
44	Quantitative description of charge-carrier transport in a white organic light-emitting diode. *Physical Review B*, **2011**, 84,	3.3	33
43	Top-emitting organic light-emitting diodes. *Optics Express*, **2011**, 19 Suppl 6, A1250-64	3.3	148
42	Influence of organic capping layers on the performance of transparent organic light-emitting diodes. *Optics Letters*, **2011**, 36, 1443-5	3	28
41	Increased and balanced light emission of transparent organic light-emitting diodes by enhanced microcavity effects. *Optics Letters*, **2011**, 36, 2931-3	3	11
40	Investigation on the origin of the memory effect in metal/organic semiconductor/metal structures. *Journal of Applied Physics*, **2011**, 110, 084508	2.5	14
39	White top-emitting organic light-emitting diodes employing a heterostructure of down-conversion layers. *Organic Electronics*, **2011**, 12, 2126-2130	3.5	27
38	Investigation of C60F36 as low-volatility p-dopant in organic optoelectronic devices. *Journal of Applied Physics*, **2011**, 109, 103102	2.5	50
37	Analysis of chemical degradation mechanism within sky blue phosphorescent organic light emitting diodes by laser-desorption/ionization time-of-flight mass spectrometry. *Organic Electronics*, **2011**, 12, 341-347	3.5	101
36	Systematic investigation of transparent organic light-emitting diodes depending on top metal electrode thickness. *Organic Electronics*, **2011**, 12, 1383-1388	3.5	26
35	Photoelectron spectroscopy investigation of thin metal films employed as top contacts in transparent organic solar cells. *Thin Solid Films*, **2011**, 519, 1872-1875	2.2	10
34	Role of oxygen-bonds in the degradation process of phosphorescent organic light emitting diodes. *Applied Physics Letters*, **2011**, 99, 053302	3.4	35
33	Highly efficient bi-directional organic light-emitting diodes by strong micro-cavity effects. *Applied Physics Letters*, **2011**, 99, 073303	3.4	16
32	Efficiency enhancement of top-emitting organic light-emitting diodes using conversion dyes. *Journal of Applied Physics*, **2011**, 110, 083118	2.5	11
31	Built-in Potential of a Pentacene Pin Homojunction Studied by Ultraviolet Photoemission Spectroscopy. *Materials Research Society Symposia Proceedings*, **2010**, 1270, 1		1

30	Highly efficient inverted top-emitting organic electroluminescent devices with doped charge transport layers **2010**,		5
29	Measurement of triplet exciton diffusion in organic light-emitting diodes. *Physical Review B*, **2010**, 81,	3.3	51
28	Influence of the hole blocking layer on blue phosphorescent organic light-emitting devices using 3,6-di(9-carbazolyl)-9-(2-ethylhexyl)carbazole as host material. *Applied Physics Letters*, **2010**, 96, 093304	3.4	47
27	Quantification of energy loss mechanisms in organic light-emitting diodes. *Applied Physics Letters*, **2010**, 97, 253305	3.4	272
26	Top-emitting organic light-emitting diodes: Influence of cavity design. *Applied Physics Letters*, **2010**, 97, 253308	3.4	97
25	Outcoupling efficiency in small-molecule OLEDs: from theory to experiment **2010**,		38
24	Organic Zener diodes: tunneling across the gap in organic semiconductor materials. *Nano Letters*, **2010**, 10, 4929-34	11.5	56
23	Single carrier devices with electrical doped layers for the characterization of charge-carrier transport in organic thin-films. *Applied Physics Letters*, **2010**, 97, 013303	3.4	15
22	Comparison of ultraviolet- and charge-induced degradation phenomena in blue fluorescent organic light emitting diodes. *Applied Physics Letters*, **2010**, 97, 013308	3.4	19
21	Highly efficient white organic light-emitting diodes based on fluorescent blue emitters. *Journal of Applied Physics*, **2010**, 108, 113113	2.5	76
20	Novel concepts for OLED lighting **2010**,		5
19	Improved high-brightness efficiency of phosphorescent organic LEDs comprising emitter molecules with small permanent dipole moments. *Advanced Materials*, **2010**, 22, 3189-93	24	76
18	A novel printing technique for highly integrated organic devices. *Microelectronic Engineering*, **2010**, 87, 614-619	2.5	3
17	White top-emitting organic light-emitting diodes with forward directed emission and high color quality. *Organic Electronics*, **2010**, 11, 1676-1682	3.5	61
16	Photoelectron spectroscopy study of systematically varied doping concentrations in an organic semiconductor layer using a molecular p-dopant. *Journal of Applied Physics*, **2009**, 106, 103711	2.5	117
15	. *Proceedings of the IEEE*, **2009**, 97, 1606-1626	14.3	98
14	Chemical changes on the green emitter tris(8-hydroxy-quinolinato)aluminum during device aging of p-i-n-structured organic light emitting diodes. *Applied Physics Letters*, **2009**, 95, 183309	3.4	22
13	White organic light-emitting diodes with fluorescent tube efficiency. *Nature*, **2009**, 459, 234-8	50.4	2874

12	46.1: Invited Paper: Exciton Induced Chemical Reactions in Organic Light Emitting Devices. *Digest of Technical Papers SID International Symposium*, **2009**, 40, 681	0.5	6
11	Laser desorption/ionization time-of-flight mass spectrometry: A predictive tool for the lifetime of organic light emitting devices. *Applied Physics Letters*, **2009**, 94, 043314	3.4	27
10	Electrical and Structural Characterization of Biphenylethanethiol SAMs. *Journal of Physical Chemistry C*, **2007**, 111, 6392-6397	3.8	18
9	Self Assembly of Mixed Monolayers of Mercaptoundecylferrocene and Undecanethiol studied by STM. *Journal of Physics: Conference Series*, **2007**, 61, 852-855	0.3	10
8	STM study of mixed alkanethiol/biphenylthiol self-assembled monolayers on Au(111). *Langmuir*, **2006**, 22, 3021-7	4	51
7	Resistive switching of rose bengal devices: A molecular effect?. *Journal of Applied Physics*, **2006**, 100, 094504	2.5	47
6	Molecular structure of ferrocenethiol islands embedded into alkanethiol self-assembled monolayers by UHV-STM. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 1448-1452	1.6	18
5	A new phase of the c(4 x 2) superstructure of alkanethiols grown by vapor phase deposition on gold. *Langmuir*, **2005**, 21, 5256-8	4	54
4	The origin of faceting of ultraflat gold films epitaxially grown on mica. *Applied Surface Science*, **2005** , 249, 197-202	6.7	54
3	Rectangular (3 x 2 square root of 3) superlattice of a dodecanethiol self-assembled monolayer on Au(111) observed by ultra-high-vacuum scanning tunneling microscopy. *Journal of Physical Chemistry B*, **2005**, 109, 11424-6	3.4	17
2	Organic electrochemical transistors from device models to a targeted design of materials. *Journal of Materials Chemistry C*,	7.1	11
1	The Transient Response of Organic Electrochemical Transistors. *Advanced Theory and Simulations*,2100563	3.5	4