Soeren Steudel

List of Publications by Year
in descending order

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87	2,974	172457	175258
papers	citations	29 h-index	52 g-index

88	88	88	3229
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Influence of the dielectric roughness on the performance of pentacene transistors. Applied Physics Letters, 2004, 85, 4400.	3.3	362
2	50 MHz rectifier based on an organic diode. Nature Materials, 2005, 4, 597-600.	27.5	240
3	Nucleation of organic semiconductors on inert substrates. Physical Review B, 2003, 68, .	3.2	231
4	Plastic circuits and tags for 13.56MHz radio-frequency communication. Solid-State Electronics, 2009, 53, 1220-1226.	1.4	127
5	Correlation between bias stress instability and phototransistor operation of pentacene thin-film transistors. Applied Physics Letters, 2007, 91, 103508.	3.3	104
6	Comparison of organic diode structures regarding high-frequency rectification behavior in radio-frequency identification tags. Journal of Applied Physics, 2006, 99, 114519.	2.5	103
7	Nanoparticle-based, spray-coated silver top contacts for efficient polymer solar cells. Organic Electronics, 2009, 10, 735-740.	2.6	103
8	Design and realization of a flexible QQVGA AMOLED display with organic TFTs. Organic Electronics, 2012, 13, 1729-1735.	2.6	89
9	High-performance a-In-Ga-Zn-O Schottky diode with oxygen-treated metal contacts. Applied Physics Letters, 2012, 101, .	3.3	81
10	Uniform Aerosol Jet printed polymer lines with 30Î¼m width for 140ppi resolution RGB organic light emitting diodes. Organic Electronics, 2015, 22, 40-43.	2.6	77
11	An integrated double half-wave organic Schottky diode rectifier on foil operating at 13.56 MHz. Applied Physics Letters, 2008, 93, 093305.	3.3	71
12	Gigahertz Operation of a-IGZO Schottky Diodes. IEEE Transactions on Electron Devices, 2013, 60, 3407-3412.	3.0	64
13	Low voltage complementary organic inverters. Applied Physics Letters, 2006, 88, 162116.	3.3	61
14	Noise-Margin Analysis for Organic Thin-Film Complementary Technology. IEEE Transactions on Electron Devices, 2010, 57, 201-208.	3.0	58
15	Integrated shadow mask method for patterning small molecule organic semiconductors. Applied Physics Letters, 2006, 88, 103501.	3.3	52
16	Patterned growth of pentacene. Applied Physics Letters, 2004, 85, 5550-5552.	3.3	46
17	Low-temperature and scalable complementary thin-film technology based on solution-processed metal oxide n-TFTs and pentacene p-TFTs. Organic Electronics, 2011, 12, 1909-1913.	2.6	45
18	Power saving through state retention in IGZO-TFT AMOLED displays for wearable applications. Journal of the Society for Information Display, 2017, 25, 222-228.	2.1	44

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19	Pentacene devices and logic gates fabricated by organic vapor phase deposition. Applied Physics Letters, 2006, 89, 203502.	3.3	43
20	Patterning of organic thin film transistors by oxygen plasma etch. Applied Physics Letters, 2006, 89, 183503.	3.3	42
21	15.2 A flexible ISO14443-A compliant 7.5mW 128b metal-oxide NFC barcode tag with direct clock division circuit from 13.56MHz carrier. , 2017, , .		42
22	Singleâ€source dualâ€layer amorphous IGZO thinâ€film transistors for display and circuit applications. Journal of the Society for Information Display, 2013, 21, 129-136.	2.1	40
23	High-Performance a-IGZO Thin Film Diode as Selector for Cross-Point Memory Application. IEEE Electron Device Letters, 2014, 35, 642-644.	3.9	39
24	Multiscale Modeling of the Electrostatic Impact of Self-Assembled Monolayers used as Gate Dielectric Treatment in Organic Thin-Film Transistors. ACS Applied Materials & Interfaces, 2014, 6, 15372-15378.	8.0	37
25	Light-emitting organic field-effect transistor using an organic heterostructure within the transistor channel. Applied Physics Letters, 2006, 89, 223504.	3.3	36
26	16.6 Flexible thin-film NFC transponder chip exhibiting data rates compatible to ISO NFC standards using self-aligned metal-oxide TFTs. , 2016, , .		35
27	Self-aligned surface treatment for thin-film organic transistors. Applied Physics Letters, 2006, 88, 222103.	3.3	34
28	Organic complementary oscillators with stage-delays below 1â€‚Î¼s. Applied Physics Letters, 2010, 96, 133307.	3.3	34
29	A low-temperature-cross-linked poly(4-vinylphenol) gate-dielectric for organic thin film transistors. Thin Solid Films, 2010, 519, 391-393.	1.8	32
30	High performance aâ€IGZO thinâ€film transistors with mfâ€PVD SiO₂ as an etchâ€stopâ€layer. Journal of the Society for Information Display, 2014, 22, 23-28.	2.1	31
31	Scaling down of organic complementary logic gates for compact logic on foil. Organic Electronics, 2014, 15, 1229-1234.	2.6	30
32	Photolithographic patterning of organic photodetectors with a non-fluorinated photoresist system. Organic Electronics, 2014, 15, 2355-2359.	2.6	29
33	Novel backâ€channelâ€etch process flow based aâ€IGZO TFTs for circuit and display applications on PEN foil. Journal of the Society for Information Display, 2013, 21, 369-375.	2.1	27
34	Back-channel-etch amorphous indiumâ€“galliumâ€“zinc oxide thin-film transistors: The impact of source/drain metal etch and final passivation. Japanese Journal of Applied Physics, 2014, 53, 111401.	1.5	27
35	20.1: Flexible AMOLED Display and Gateâ€driver with Selfâ€aligned IGZO TFT on Plastic Foil. Digest of Technical Papers SID International Symposium, 2014, 45, 248-251.	0.3	27
36	Characteristics improvement of topâ€gate selfâ€aligned amorphous indium gallium zinc oxide thinâ€film transistors using a dualâ€gate control. Journal of the Society for Information Display, 2017, 25, 349-355.	2.1	26

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37	Circuits and AMOLED display with self-aligned a-IGZO TFTs on polyimide foil. Journal of the Society for Information Display, 2014, 22, 509-517.	2.1	23
38	Low-temperature formation of sourceâ€“drain contacts in self-aligned amorphous oxide thin-film transistors. Journal of Information Display, 2015, 16, 111-117.	4.0	23
39	High resolution photolithography for direct view active matrix organic light-emitting diode augmented reality displays. Journal of the Society for Information Display, 2018, 26, 128-136.	2.1	22
40	UHF IGZO Schottky diode. , 2012, , .		21
41	Integrated Line Driver for Digital Pulse-Width Modulation Driven AMOLED Displays on Flex. IEEE Journal of Solid-State Circuits, 2015, 50, 282-290.	5.4	20
42	Solutionâ€processed and lowâ€temperature metal oxide nâ€channel thinâ€film transistors and lowâ€voltage complementary circuitry on largeâ€area flexible polyimide foil. Journal of the Society for Information Display, 2012, 20, 499-507.	2.1	19
43	A 6b 10MS/s current-steering DAC manufactured with amorphous Gallium-Indium-Zinc-Oxide TFTs achieving SFDR > 30dB up to 300kHz. , 2012, , .		19
44	Impact of the Low Temperature Gate Dielectrics on Device Performance and Bias-Stress Stabilities of a-IGZO Thin-Film Transistors. ECS Journal of Solid State Science and Technology, 2015, 4, N99-N102.	1.8	16
45	Ultra-High Frequency rectification using organic diodes. , 2008, , .		13
46	13.4: Flexible Low Temperature Solution Processed Oxide Semiconductor TFT Backplanes for Use in AMOLED Displays. Digest of Technical Papers SID International Symposium, 2014, 45, 161-163.	0.3	13
47	18.4L: Lateâ€News Paper: Full Color Flexible Topâ€emission AMOLED Display on Polyethylene Naphthalate (PEN) Foil with Metal Oxide TFTs Backplane. Digest of Technical Papers SID International Symposium, 2013, 44, 203-206.	0.3	12
48	Integrated UHF a-IGZO energy harvester for passive RFID tags. , 2013, , .		12
49	Functional Pentacene Thin Films Grown by In-Line Organic Vapor Phase Deposition at Web Speeds above 2 m/min. Applied Physics Express, 2009, 2, 086503.	2.4	11
50	Pulsed Excitation of OLEDs With a Remote Metallic Cathode. IEEE Journal of Quantum Electronics, 2010, 46, 62-67.	1.9	11
51	Analysis of frequency dispersion in amorphous Inâ€“Gaâ€“Znâ€“O thin-film transistors. Journal of Information Display, 2015, 16, 31-36.	4.0	11
52	Origin of High Current and Illumination Stress Instability in Self-Aligned a-InGaZnO Thin Film Transistors With Al₂O₃ as High-Î° Gate Dielectric. IEEE Electron Device Letters, 2020, 41, 565-568.	3.9	11
53	An organic integrated capacitive DC-DC up-converter. , 2010, , .		10
54	Medium Frequency Physical Vapor Deposited Al₂O₃and SiO₂as Etch-Stop-Layers for Amorphous Indium-Gallium-Zinc-Oxide Thin-Film-Transistors. ECS Journal of Solid State Science and Technology, 2015, 4, Q38-Q42.	1.8	10

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55	Self-Aligned Amorphous Indium-Tin-Zinc-Oxide Thin Film Transistors on Polyimide Foil. ECS Journal of Solid State Science and Technology, 2018, 7, P185-P191.	1.8	10
56	High-Performance Low Voltage Organic Thin-Film Transistors. Materials Research Society Symposia Proceedings, 2005, 870, 141.	0.1	9
57	Effect of High Oxygen Partial Pressure on Carrier Transport Mechanism in a-InGaZnO TFTs. IEEE Transactions on Electron Devices, 2018, 65, 2833-2837.	3.0	9
58	9â€‘1: Invited Paper: Metalâ€‘oxide readout electronics based on Indiumâ€‘Galliumâ€‘Zincâ€‘Oxide and Indiumâ€‘Tinâ€‘Zincâ€‘Oxide for inâ€‘panel fingerprint detection application. Digest of Technical Papers SID International Symposium, 2019, 50, 95-98.	0.3	9
59	29.4: Flexible AMOLED Display with Integrated Gate Driver Operating at Operation Speed Compatible with 4k2k. Digest of Technical Papers SID International Symposium, 2015, 46, 427-430.	0.3	8
60	16.5 A flexible thin-film pixel array with a charge-to-current gain of 59ÂµA/pC and 0.33% nonlinearity and a cost effective readout circuit for large-area X-ray imaging. , 2016, , .		7
61	(Invited) Sub-40mV Sigma V_{TH} Igzo nFETs in 300mm Fab. ECS Transactions, 2020, 98, 205-217.	0.5	7
62	Comparative study of sourceâ€“drain contact metals for amorphous InGaZnO thinâ€‘film transistors. Journal of the Society for Information Display, 2014, 22, 310-315.	2.1	6
63	Flexible 16nJ/c.s. 134S/s 6b MIM C-2C ADC using Dual Gate Self-aligned Unipolar Metal-Oxide TFTs. , 2019, , .		6
64	Adhesion Promoting Polymer Interlayers for Ag Layers Deposited in OLED Processing. Journal of Adhesion Science and Technology, 2010, 24, 1145-1151.	2.6	5
65	External compensation for highâ€‘resolution active matrix organic lightâ€‘emitting diode displays. Journal of the Society for Information Display, 2021, 29, 511-525.	2.1	5
66	(Invited) Towards EPC Compatible Plastic RFID Tags. ECS Transactions, 2010, 33, 383-389.	0.5	4
67	Design and manufacturing of organic RFID circuits: Coping with intrinsic parameter variations in organic devices by circuit design. , 2010, , .		4
68	Organic RFID Tags. Integrated Circuits and Systems, 2013, , 133-155.	0.2	4
69	Ultralow power transponder in thin film circuit technology on foil with sub − 1V operation voltage. , 2014, , .		4
70	Pâ€‘6: Impact of Buffer Layers on the Selfâ€‘Aligned Topâ€‘Gate aâ€‘IGZO TFT Characteristics. Digest of Technical Papers SID International Symposium, 2015, 46, 1139-1142.	0.3	4
71	Impact of source/drain contacts formation of selfâ€‘aligned amorphousâ€‘IGZO TFTs on their negativeâ€‘biasâ€‘illuminationâ€‘stress stabilities. Journal of the Society for Information Display, 2015, 23, 397-402.	2.1	4
72	An active artificial iris controlled by a 25-Î¼W flexible thin-film driver. , 2016, , .		4

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73	Highâ€temperature thinâ€film barriers for foldable <scp>AMOLED</scp> displays. Journal of the Society for Information Display, 2018, 26, 214-222.	2.1	4
74	High-speed growth of pentacene thin films by in-line organic vapor phase deposition. Proceedings of SPIE, 2009, , .	0.8	3
75	In-Panel 31.17dB 140kHz 87ÂµW Unipolar Dual-Gate In-Ga-Zn-O Charge-Sense Amplifier for 500dpi Sensor Array on Flexible Displays. , 2018, , .		3
76	Impact of etch stop layer on negative bias illumination stress of amorphous Indium Gallium Zinc Oxide transistors. , 2014, , .		2
77	5â€3: Distinguished Paper: Power Saving through State Retention in IGZOâ€TFT AMOLED Displays for Wearable Applications. Digest of Technical Papers SID International Symposium, 2017, 48, 38-41.	0.3	2
78	ESD characterisation of a-IGZO TFTs on Si and foil substrates. , 2017, , .		2
79	Organic RFID Tags. , 0, , .		2
80	Light-emitting organic field-effect transistors using an organic heterostructure inside the transistor channel. , 2006, 6192, 71.		1
81	Intra-Grain and Oligo-Grain Top-Contact Organic Thin film Transistors. Materials Research Society Symposia Proceedings, 2003, 771, 691.	0.1	0
82	Patterned growth of organic small-molecule layers. Materials Research Society Symposia Proceedings, 2004, 814, 119.	0.1	0
83	Towards EPC Compatible Plastic RFID Tags. ECS Meeting Abstracts, 2010, MA2010-02, 1830-1830.	0.0	0
84	Interlayer Processing in Active Matrix OLED Displays. , 2011, , .		0
85	Paper No S12.5: Selfâ€Aligned aâ€IGZO TFTs: Impact of S/D Contacts Formation on Their Negativeâ€Biasâ€Illuminationâ€Stress (NBIS) Instability. Digest of Technical Papers SID International Symposium, 2015, 46, 55-55.	0.3	0
86	Organic photodetectors with active layer patterned by lithography. , 2015, , .		0
87	Towards EPC-Compatible Organic RFID Tags. , 2011, , 347-367.		0