Dago M De Leeuw

List of Publications by Year
in descending order

136 papers	14,604 citations	26630 56 h-index	18130 120 g-index
137 all docs	137 docs citations	137 times ranked	14660 citing authors

#	Article	IF	Citations
1	Flexible active-matrix displays and shift registers based on solution-processed organic transistors. Nature Materials, 2004, 3, 106-110.	27.5	1,516
2	High-performance solution-processed polymer ferroelectric field-effect transistors. Nature Materials, 2005, 4, 243-248.	27.5	880
3	Gate Insulators in Organic Field-Effect Transistors. Chemistry of Materials, 2004, 16, 4543-4555.	6.7	853
4	Poly(diketopyrrolopyrroleâ˜’terthiophene) for Ambipolar Logic and Photovoltaics. Journal of the American Chemical Society, 2009, 131, 16616-16617.	13.7	721
5	Towards molecular electronics with large-area molecular junctions. Nature, 2006, 441, 69-72.	27.8	583
6	Spatially Correlated Charge Transport in Organic Thin Film Transistors. Physical Review Letters, 2004, 92, 116802.	7.8	582
7	Organic Nonvolatile Memory Devices Based on Ferroelectricity. Advanced Materials, 2010, 22, 933-945.	21.0	511
8	Bottom-up organic integrated circuits. Nature, 2008, 455, 956-959.	27.8	366
9	Revisiting the Î´-phase of poly(vinylidene fluoride) for solution-processed ferroelectric thin films. Nature Materials, 2013, 12, 433-438.	27.5	361
10	Efficient Solar Cells Based on an Easily Accessible Diketopyrrolopyrrole Polymer. Advanced Materials, 2010, 22, E242-6.	21.0	358
11	The negative piezoelectric effect of the ferroelectric polymer poly(vinylidene fluoride). Nature Materials, 2016, 15, 78-84.	27.5	329
12	Organic non-volatile memories from ferroelectric phase-separated blends. Nature Materials, 2008, 7, 547-550.	27.5	317
13	Organic thin-film electronics from vitreous solution-processed rubrene hypereutectics. Nature Materials, 2005, 4, 601-606.	27.5	246
14	Switching and filamentary conduction in non-volatile organic memories. Organic Electronics, 2006, 7, 305-312.	2.6	244
15	High performance n-channel organic field-effect transistors and ring oscillators based on C60 fullerene films. Applied Physics Letters, 2006, 89, 213504.	3.3	239
16	Large Area Liquid Crystal Monodomain Field-Effect Transistors. Journal of the American Chemical Society, 2006, 128, 2336-2345.	13.7	222
17	Operational Stability of Organic Fieldâ€Effect Transistors. Advanced Materials, 2012, 24, 1146-1158.	21.0	213
18	High Anisotropy of the Field-Effect Transistor Mobility in Magnetically Aligned Discotic Liquid-Crystalline Semiconductors. Journal of the American Chemical Society, 2005, 127, 16233-16237.	13.7	197

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19	Air-stable ambipolar organic transistors. Applied Physics Letters, 2007, 90, 122105.	3.3	194
20	25th Anniversary Article: Charge Transport and Recombination in Polymer Lightâ€Emitting Diodes. Advanced Materials, 2014, 26, 512-531.	21.0	194
21	Novel Star-Shaped Triphenylamine-Based Molecular Glasses and Their Use in OFETs. Chemistry of Materials, 2005, 17, 3031-3039.	6.7	187
22	Organic complementary-like inverters employing methanofullerene-based ambipolar field-effect transistors. Applied Physics Letters, 2004, 85, 4205-4207.	3.3	179
23	Electron tunneling through alkanedithiol self-assembled monolayers in large-area molecular junctions. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11161-11166.	7.1	178
24	Controlling the microstructure of poly(vinylidene-fluoride) (PVDF) thin films for microelectronics. Journal of Materials Chemistry C, 2013, 1, 7695.	5.5	158
25	Control of Ambipolar Thin Film Architectures by Co-Self-Assembling Oligo(p-phenylenevinylene)s and Perylene Bisimides. Journal of the American Chemical Society, 2006, 128, 9535-9540.	13.7	154
26	High mobility n-channel organic field-effect transistors based on soluble C60 and C70 fullerene derivatives. Synthetic Metals, 2008, 158, 468-472.	3.9	151
27	Small band gap copolymers based on furan and diketopyrrolopyrrole for field-effect transistors and photovoltaic cells. Journal of Materials Chemistry, 2011, 21, 1600-1606.	6.7	148
28	Dualâ€Gate Thinâ€Film Transistors, Integrated Circuits and Sensors. Advanced Materials, 2011, 23, 3231-3242.	21.0	142
29	Dualâ€Gate Organic Fieldâ€Effect Transistors as Potentiometric Sensors in Aqueous Solution. Advanced Functional Materials, 2010, 20, 898-905.	14.9	136
30	Charge Injection Across Self-Assembly Monolayers in Organic Field-Effect Transistors:â€‰ Oddâ^'Even Effects. Journal of the American Chemical Society, 2007, 129, 6477-6484.	13.7	134
31	Reproducible resistive switching in nonvolatile organic memories. Applied Physics Letters, 2007, 91, .	3.3	126
32	Monolayer coverage and channel length set the mobility in self-assembled monolayer field-effect transistors. Nature Nanotechnology, 2009, 4, 674-680.	31.5	121
33	Formation of High-Quality Self-Assembled Monolayers of Conjugated Dithiols on Gold: Base Matters. Journal of the American Chemical Society, 2011, 133, 4930-4939.	13.7	103
34	Revealing Buried Interfaces to Understand the Origins of Threshold Voltage Shifts in Organic Fieldâ€Effect Transistors. Advanced Materials, 2010, 22, 5105-5109.	21.0	101
35	NO₂ Detection and Real-Time Sensing with Field-Effect Transistors. Chemistry of Materials, 2014, 26, 773-785.	6.7	101
36	Flexible Piezoelectric Touch Sensor by Alignment of Leadâ€Free Alkaline Niobate Microcubes in PDMS. Advanced Functional Materials, 2017, 27, 1700728.	14.9	101

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37	Ferroelectric Phase Diagram of PVDF:PMMA. Macromolecules, 2012, 45, 7477-7485.	4.8	99
38	Depolarization of multidomain ferroelectric materials. Nature Communications, 2019, 10, 2547.	12.8	93
39	Upscaling, integration and electrical characterization of molecular junctions. Nature Nanotechnology, 2008, 3, 749-754.	31.5	92
40	Organic ferroelectric opto-electronic memories. Materials Today, 2011, 14, 592-599.	14.2	92
41	Transport Physics and Device Modeling of Zinc Oxide Thin-Film Transistors Part I: Long-Channel Devices. IEEE Transactions on Electron Devices, 2011, 58, 2610-2619.	3.0	91
42	Gas sensing with self-assembled monolayer field-effect transistors. Organic Electronics, 2010, 11, 895-898.	2.6	90
43	Star-Shaped Oligothiophenes for Solution-Processible Organic Electronics:Â Flexible Aliphatic Spacers Approach. Chemistry of Materials, 2006, 18, 4101-4108.	6.7	87
44	Organic ultra-thin film transistors with a liquid gate for extracellular stimulation and recording of electric activity of stem cell-derived neuronal networks. Physical Chemistry Chemical Physics, 2013, 15, 3897.	2.8	82
45	Ambipolar organic transistors and near-infrared phototransistors based on a solution-processable squarilium dye. Journal of Materials Chemistry, 2010, 20, 3673.	6.7	77
46	Tunable Injection Barrier in Organic Resistive Switches Based on Phaseâ€Separated Ferroelectricâ€“Semiconductor Blends. Advanced Functional Materials, 2009, 19, 3173-3178.	14.9	73
47	Improved Photovoltaic Performance of a Semicrystalline Narrow Bandgap Copolymer Based on 4H-Cyclopenta[2,1-b:3,4-bâ€²]dithiophene Donor and Thiazolo[5,4-d]thiazole Acceptor Units. Chemistry of Materials, 2012, 24, 587-593.	6.7	73
48	Selfâ€Assembledâ€Monolayer Formation of Long Alkanedithiols in Molecular Junctions. Small, 2008, 4, 100-104.	10.0	69
49	Integrated circuits based on conjugated polymer monolayer. Nature Communications, 2018, 9, 451.	12.8	69
50	The Disperse Charge-Carrier Kinetics in Regioregular Poly(3-hexylthiophene). Journal of Physical Chemistry B, 2004, 108, 17818-17824.	2.6	66
51	Charge Trapping by Selfâ€Assembled Monolayers as the Origin of the Threshold Voltage Shift in Organic Fieldâ€Effect Transistors. Small, 2012, 8, 241-245.	10.0	61
52	Polarization fatigue of organic ferroelectric capacitors. Scientific Reports, 2014, 4, 5075.	3.3	61
53	Reliable Work Function Determination of Multicomponent Surfaces and Interfaces: The Role of Electrostatic Potentials in Ultraviolet Photoelectron Spectroscopy. Advanced Materials Interfaces, 2017, 4, 1700324.	3.7	61
54	Crossbar memory array of organic bistable rectifying diodes for nonvolatile data storage. Applied Physics Letters, 2010, 97, .	3.3	60

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55	Spinodal Decomposition of Blends of Semiconducting and Ferroelectric Polymers. Advanced Functional Materials, 2011, 21, 1887-1894.	14.9	58
56	Nâ€Type Selfâ€Assembled Monolayer Fieldâ€Effect Transistors and Complementary Inverters. Advanced Functional Materials, 2013, 23, 2016-2023.	14.9	58
57	Gateâ€Bias Controlled Charge Trapping as a Mechanism for NO₂ Detection with Fieldâ€Effect Transistors. Advanced Functional Materials, 2011, 21, 100-107.	14.9	57
58	Solutionâ€Processable Septithiophene Monolayer Transistor. Advanced Materials, 2012, 24, 973-978.	21.0	56
59	Processing and Low Voltage Switching of Organic Ferroelectric Phaseâ€Separated Bistable Diodes. Advanced Functional Materials, 2012, 22, 2750-2757.	14.9	52
60	Analysis and experimental validation of the figure of merit for piezoelectric energy harvesters. Materials Horizons, 2018, 5, 444-453.	12.2	52
61	Structure of Phaseâ€Separated Ferroelectric/Semiconducting Polymer Blends for Organic Nonâ€volatile Memories. Small, 2010, 6, 508-512.	10.0	50
62	Impact of derivatization on electron transmission through dithienylethene-based photoswitches in molecular junctions. Physical Chemistry Chemical Physics, 2013, 15, 4392.	2.8	49
63	Origin of the efficiency enhancement in ferroelectric functionalized organic solar cells. Applied Physics Letters, 2011, 98, 183301.	3.3	46
64	Stability of large-area molecular junctions. Organic Electronics, 2010, 11, 146-149.	2.6	44
65	Solid-state-processing of Î´-PVDF. Materials Horizons, 2017, 4, 408-414.	12.2	43
66	Physics of organic ferroelectric fieldâ€effect transistors. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 47-54.	2.1	41
67	Switching dynamics in ferroelectric P(VDF-TrFE) thin films. Physical Review B, 2015, 92, .	3.2	41
68	Resistive Switching in Organic Memories with a Spin-Coated Metal Oxide Nanoparticle Layer. Journal of Physical Chemistry C, 2008, 112, 5254-5257.	3.1	38
69	Ordered Semiconducting Self-Assembled Monolayers on Polymeric Surfaces Utilized in Organic Integrated Circuits. Nano Letters, 2010, 10, 1998-2002.	9.1	37
70	The operational mechanism of ferroelectric-driven organic resistive switches. Organic Electronics, 2012, 13, 147-152.	2.6	37
71	On the switching mechanism in Rose Bengal-based memory devices. Organic Electronics, 2007, 8, 559-565.	2.6	36
72	Nanoscale Design of Multifunctional Organic Layers for Low-Power High-Density Memory Devices. ACS Nano, 2014, 8, 3498-3505.	14.6	36

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73	Up-Scaling Graphene Electronics by Reproducible Metalâ€“Graphene Contacts. ACS Applied Materials & Interfaces, 2015, 7, 9429-9435.	8.0	35
74	Retention of intermediate polarization states in ferroelectric materials enabling memories for multi-bit data storage. Applied Physics Letters, 2016, 108, .	3.3	33
75	Synthesis of Monochlorosilyl Derivatives of Dialkyloligothiophenes for Self-Assembling Monolayer Field-Effect Transistors. Organometallics, 2010, 29, 4213-4226.	2.3	32
76	Ultralow Power Microfuses for Writeâ€Once Readâ€Many Organic Memory Elements. Advanced Materials, 2008, 20, 3750-3753.	21.0	31
77	Organic field-effect transistor-based biosensors functionalized with protein receptors. Journal of Applied Physics, 2010, 108, 124501.	2.5	31
78	Transport Physics and Device Modeling of Zinc Oxide Thin-Film Transistorsâ€”Part II: Contact Resistance in Short Channel Devices. IEEE Transactions on Electron Devices, 2011, 58, 3025-3033.	3.0	30
79	The MEMOLED: Active Addressing with Passive Driving. Advanced Materials, 2011, 23, 865-868.	21.0	30
80	Laser induced forward transfer of graphene. Applied Physics Letters, 2017, 111, .	3.3	29
81	The Curious Outâ€ofâ€Plane Conductivity of PEDOT:PSS. Advanced Functional Materials, 2013, 23, 5787-5793.	14.9	28
82	n-Type self-assembled monolayer field-effect transistors for flexible organic electronics. Organic Electronics, 2013, 14, 1297-1304.	2.6	27
83	Manipulating the Local Light Emission in Organic Lightâ€Emitting Diodes by using Patterned Selfâ€Assembled Monolayers. Advanced Materials, 2008, 20, 2703-2706.	21.0	26
84	Fluorine containing C60 derivatives for high-performance electron transporting field-effect transistors and integrated circuits. Applied Physics Letters, 2008, 92, 143310.	3.3	26
85	Light Emission in the Unipolar Regime of Ambipolar Organic Fieldâ€Effect Transistors. Advanced Functional Materials, 2013, 23, 4133-4139.	14.9	26
86	Photoconductivity enhancement of poly(3-hexylthiophene) by increasing inter- and intra-chain order. Synthetic Metals, 2003, 137, 863-864.	3.9	25
87	Retention Time and Depolarization in Organic Nonvolatile Memories Based on Ferroelectric Semiconductor Phase-Separated Blends. IEEE Transactions on Electron Devices, 2010, 57, 3466-3471.	3.0	24
88	Universal Scaling of the Charge Transport in Largeâ€Area Molecular Junctions. Small, 2011, 7, 1593-1598.	10.0	22
89	Extracellular electrical recording of pH-triggered bursts in C6 glioma cell populations. Science Advances, 2016, 2, e1600516.	10.3	22
90	Synthesis and characterization of novel Cu 2 O/PVDF nanocomposites for flexible ferroelectric organic electronic memory devices. Current Applied Physics, 2017, 17, 1181-1188.	2.4	22

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91	New fluoreneâ€“bithiophene-based trimers as stable materials for OFETs. Synthetic Metals, 2006, 156, 582-589.	3.9	21
92	Microstructure and Phase Behavior of a Quinquethiophene-Based Self-Assembled Monolayer as a Function of Temperature. Journal of Physical Chemistry C, 2011, 115, 22925-22930.	3.1	21
93	Organic field-effect transistors as a test-bed for molecular electronics: A combined study with large-area molecular junctions. Organic Electronics, 2012, 13, 2502-2507.	2.6	21
94	An electrical method to measure low-frequency collective and synchronized cell activity using extracellular electrodes. Sensing and Bio-Sensing Research, 2016, 10, 1-8.	4.2	21
95	Binary self-assembled monolayers: Apparent exponential dependence of resistance on average molecular length. Organic Electronics, 2011, 12, 857-864.	2.6	20
96	Localizing trapped charge carriers in NO2 sensors based on organic field-effect transistors. Applied Physics Letters, 2012, 101, .	3.3	19
97	Polymer-based transistors used as pixel switches in active-matrix displays. Journal of the Society for Information Display, 2002, 10, 195.	2.1	18
98	Origin of the stretched-exponential hole relaxation in regioregular poly(3-hexylthiophene). Chemical Physics Letters, 2005, 402, 370-374.	2.6	18
99	Downscaling and Charge Transport in Nanostructured Ferroelectric Memory Diodes Fabricated by Solution Micromolding. Advanced Functional Materials, 2016, 26, 5111-5119.	14.9	18
100	Trapping of electrons in metal oxide-polymer memory diodes in the initial stage of electroforming. Applied Physics Letters, 2010, 97, .	3.3	17
101	Lithium fluoride injection layers can form quasi-Ohmic contacts for both holes and electrons. Applied Physics Letters, 2014, 105, 123302.	3.3	17
102	Complementary circuits based on solution processed low-voltage organic field-effect transistors. Synthetic Metals, 2009, 159, 2368-2370.	3.9	16
103	Low-Frequency Diffusion Noise in Resistive-Switching Memories Based on Metalâ€“Oxide Polymer Structure. IEEE Transactions on Electron Devices, 2012, 59, 2483-2487.	3.0	16
104	Intrinsic and extrinsic resistive switching in a planar diode based on silver oxide nanoparticles. Thin Solid Films, 2012, 522, 407-411.	1.8	14
105	Fundamental Limitations for Electroluminescence in Organic Dualâ€Gate Fieldâ€Effect Transistors. Advanced Materials, 2014, 26, 4450-4455.	21.0	14
106	Optical and Conductive Properties of Large-Area Liquid Crystalline Monodomains of Terthiophene Derivatives. Journal of Physical Chemistry C, 2007, 111, 18411-18416.	3.1	13
107	Switching dynamics in non-volatile polymer memories. Organic Electronics, 2008, 9, 829-833.	2.6	13
108	Opto-electronic characterization of electron traps upon forming polymer oxide memory diodes. Applied Physics Letters, 2011, 99, .	3.3	13

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109	Microstructured organic ferroelectric thin film capacitors by solution micromolding. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2124-2132.	1.8	13
110	Photophysics of Self-Assembled Monolayers of a Ï€-Conjugated Quinquethiophene Derivative. Journal of Physical Chemistry A, 2012, 116, 7645-7650.	2.5	12
111	Carrierâ€density dependence of the hole mobility in doped and undoped regioregular poly(3â€hexylthiophene). Physica Status Solidi (B): Basic Research, 2012, 249, 138-141.	1.5	12
112	Solvent-Induced Galvanoluminescence of Metalâ€“Organic Framework Electroluminescent Diodes. Journal of Physical Chemistry C, 2016, 120, 11045-11048.	3.1	12
113	Ferroelectricity and piezoelectricity in soft biological tissue: Porcine aortic walls revisited. Applied Physics Letters, 2017, 111, .	3.3	12
114	Controlling charge injection by self-assembled monolayers in bottom-gate and top-gate organic field-effect transistors. Synthetic Metals, 2011, 161, 2226-2229.	3.9	11
115	Predictability of Thermal and Electrical Properties of End-Capped Oligothiophenes by a Simple Bulkiness Parameter. Chemistry of Materials, 2013, 25, 2128-2136.	6.7	11
116	The role of internal structure in the anomalous switching dynamics of metal-oxide/polymer resistive random access memories. Journal of Applied Physics, 2013, 113, .	2.5	11
117	Thin film thermistor with positive temperature coefficient of resistance based on phase separated blends of ferroelectric and semiconducting polymers. Applied Physics Letters, 2016, 109, .	3.3	11
118	Role of Hole Injection in Electroforming of LiF-Polymer Memory Diodes. Journal of Physical Chemistry C, 2012, 116, 12443-12447.	3.1	10
119	Unipolar resistive switching in metal oxide/organic semiconductor non-volatile memories as a critical phenomenon. Journal of Applied Physics, 2015, 118, .	2.5	10
120	Electrical conduction of LiF interlayers in organic diodes. Journal of Applied Physics, 2015, 117, .	2.5	10
121	Anomalous temperature dependence of the current in a metal-oxide-polymer resistive switching diode. Journal Physics D: Applied Physics, 2011, 44, 025103.	2.8	9
122	Sudden death of organic light-emitting diodes. Organic Electronics, 2015, 20, 89-96.	2.6	9
123	Collective electrical oscillations of a diatom population induced by dark stress. Scientific Reports, 2018, 8, 5484.	3.3	9
124	Transverse charge transport through DNA oligomers in large-area molecular junctions. Nanoscale, 2013, 5, 9882.	5.6	8
125	Real-time NO2 detection at ppb level with ZnO field-effect transistors. Sensors and Actuators B: Chemical, 2013, 181, 668-673.	7.8	8
126	Interfacial conduction in organic ferroelectric memory diodes. Applied Physics Letters, 2018, 113, .	3.3	8

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127	Human Neuronal SHSY5Y Cells on PVDF:PTrFE Copolymer Thin Films. Advanced Engineering Materials, 2015, 17, 1051-1056.	3.5	6
128	Evaluation of the spectroscopic ellipsometry and dielectric properties of Cr2O3 nanoparticles doped PVDF thin films for future application of organic ferroelectric junctions. Optik, 2017, 138, 207-213.	2.9	6
129	Relation between the electroforming voltage in alkali halide-polymer diodes and the bandgap of the alkali halide. Applied Physics Letters, 2014, 105, 233502.	3.3	5
130	On the short circuit resilience of organic solar cells: prediction and validation. Physical Chemistry Chemical Physics, 2015, 17, 21501-21506.	2.8	5
131	Enhanced hole transport in poly(p-phenylene vinylene) planar metal-polymer-metal devices. Journal of Applied Physics, 2006, 99, 103702.	2.5	4
132	Reversible post-breakdown conduction in aluminum oxide-polymer capacitors. Applied Physics Letters, 2013, 102, 153509.	3.3	4
133	Contactless charge carrier mobility measurement in organic field-effect transistors. Organic Electronics, 2014, 15, 2855-2861.	2.6	2
134	Reflection and extinction of light by self-assembled monolayers of a quinque-thiophene derivative: A coherent scattering approach. Journal of Chemical Physics, 2016, 144, 214302.	3.0	2
135	Global excitation and local probing of ferroelectric domains. Organic Electronics, 2017, 47, 189-193.	2.6	1
136	Resistive Switching in Metal Oxide/Organic Semiconductor Nonvolatile Memories. , 0, , .		1