

John F Wager

List of Publications by Year in descending order

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65
papers

3,332
citations

201674

27
h-index

138484

58
g-index

68
all docs

68
docs citations

68
times ranked

4031
citing authors

#	ARTICLE	IF	CITATIONS
1	APPLIED PHYSICS: Transparent Electronics. Science, 2003, 300, 1245-1246.	12.6	782
2	Aqueous Inorganic Inks for Low-Temperature Fabrication of ZnO TFTs. Journal of the American Chemical Society, 2008, 130, 17603-17609.	13.7	324
3	Constant-Voltage-Bias Stress Testing of a-IGZO Thin-Film Transistors. IEEE Transactions on Electron Devices, 2009, 56, 1365-1370.	3.0	172
4	An amorphous oxide semiconductor thin-film transistor route to oxide electronics. Current Opinion in Solid State and Materials Science, 2014, 18, 53-61.	11.5	143
5	Processing effects on the stability of amorphous indium gallium zinc oxide thin-film transistors. Journal of Non-Crystalline Solids, 2008, 354, 2826-2830.	3.1	141
6	Iron Chalcogenide Photovoltaic Absorbers. Advanced Energy Materials, 2011, 1, 748-753.	19.5	138
7	Advancing MIM Electronics: Amorphous Metal Electrodes. Advanced Materials, 2011, 23, 74-78.	21.0	106
8	Solution-Processed Aluminum Oxide Phosphate Thin-Film Dielectrics. Chemistry of Materials, 2007, 19, 4023-4029.	6.7	103
9	Low-Energy Path to Dense HfO ₂ Thin Films with Aqueous Precursor. Chemistry of Materials, 2011, 23, 945-952.	6.7	87
10	High-field transport and electroluminescence in ZnS phosphor layers. Journal of Applied Physics, 1998, 83, 3176-3185.	2.5	64
11	Transparent p-type conducting BaCu ₂ S ₂ films. Applied Physics Letters, 2002, 80, 4393-4394.	3.3	60
12	Lanthanum Aluminum Oxide Thin-Film Dielectrics from Aqueous Solution. ACS Applied Materials & Interfaces, 2015, 7, 1678-1684.	8.0	58
13	Passivation of zinc-tin oxide thin-film transistors. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, L25.	1.6	55
14	Zinc Tin Oxide Thin-Film-Transistor Enhancement/Depletion Inverter. IEEE Electron Device Letters, 2009, 30, 514-516.	3.9	55
15	Impact of electrode roughness on metal-insulator-metal tunnel diodes with atomic layer deposited Al ₂ O ₃ tunnel barriers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	55
16	Real- and reciprocal-space attributes of band tail states. AIP Advances, 2017, 7, .	1.3	47
17	Metal-induced gap states modeling of metal-Ge contacts with and without a silicon nitride ultrathin interfacial layer. Journal of Applied Physics, 2011, 109, .	2.5	45
18	Design Meets Nature: Tetrahedrite Solar Absorbers. Advanced Energy Materials, 2015, 5, 1401506.	19.5	45

#	ARTICLE	IF	CITATIONS
19	Mapping out the distribution of electronic states in the mobility gap of amorphous zinc tin oxide. Applied Physics Letters, 2009, 95, .	3.3	44
20	Electronic Conduction Mechanisms in Insulators. IEEE Transactions on Electron Devices, 2018, 65, 223-230.	3.0	43
21	Atomic Solid State Energy Scale. Journal of the American Chemical Society, 2011, 133, 16852-16860.	13.7	42
22	Amorphous In ⁺ Ga ⁺ Zn Oxide Semiconducting Thin Films with High Mobility from Electrochemically Generated Aqueous Nanocluster Inks. Chemistry of Materials, 2015, 27, 5587-5596.	6.7	41
23	Conduction processes in metal-insulator-metal diodes with Ta ₂ O ₅ and Nb ₂ O ₅ insulators deposited by atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	40
24	Oxide TFTs: A Progress Report. Information Display, 2016, 32, 16-21.	0.2	39
25	Side-by-Side Comparison of Single- and Dual-Active Layer Oxide TFTs: Experiment and TCAD Simulation. IEEE Transactions on Electron Devices, 2017, 64, 4131-4136.	3.0	32
26	Amorphous IGZO Thin-Film Transistors With Ultrathin Channel Layers. IEEE Transactions on Electron Devices, 2015, 62, 3692-3696.	3.0	30
27	Solid state dielectric screening versus band gap trends and implications. Optical Materials, 2016, 60, 181-187.	3.6	30
28	Earth-abundant Cu-based chalcogenide semiconductors as photovoltaic absorbers. Journal of Materials Chemistry C, 2013, 1, 657-662.	5.5	29
29	Amorphous semiconductor mobility limits. Journal of Non-Crystalline Solids, 2016, 432, 196-199.	3.1	27
30	TFT Technology: Advancements and Opportunities for Improvement. Information Display, 2020, 36, 9-13.	0.2	27
31	Barrier height estimation of asymmetric metal-insulator-metal tunneling diodes. Journal of Applied Physics, 2013, 114, 213703.	2.5	26
32	Transfer curve assessment of oxide thin-film transistors. Journal of the Society for Information Display, 2010, 18, 749-752.	2.1	24
33	Flat-Panel Display Backplanes: LTPS or IGZO for AMLCDs or AMOLED Displays?. Information Display, 2014, 30, 26-29.	0.2	24
34	Operating Temperature Trends in Amorphous In ⁺ Ga ⁺ Zn ⁺ O Thin-Film Transistors. IEEE Electron Device Letters, 2010, 31, 818-820.	3.9	23
35	Device Physics Modeling of Surfaces and Interfaces from an Induced Gap State Perspective. Critical Reviews in Solid State and Materials Sciences, 2017, 42, 373-415.	12.3	23
36	Impact ionization rate and high-field transport in ZnS with nonlocal band structure. Journal of Applied Physics, 1996, 80, 5054-5060.	2.5	22

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37	CuTaS ₃ : Intermetal <i>d</i> Transitions Enable High Solar Absorption. Chemistry of Materials, 2017, 29, 2594-2598.	6.7	21
38	Atomic solid state energy scale: Universality and periodic trends in oxidation state. Journal of Solid State Chemistry, 2015, 231, 138-144.	2.9	19
39	Thin-film transistor mobility limits considerations. Journal of the Society for Information Display, 2016, 24, 386-393.	2.1	19
40	Transparent thin-film transistor exploratory development via sequential layer deposition and thermal annealing. Thin Solid Films, 2006, 515, 2717-2721.	1.8	18
41	Impact of humidity on the electrical performance of amorphous oxide semiconductor thin-film transistors. Journal of the Society for Information Display, 2013, 21, 310-316.	2.1	17
42	Sputtered boron indium oxide thin-film transistors. Solid-State Electronics, 2017, 137, 80-84.	1.4	16
43	15.1: <i>Invited Paper</i> : Amorphous Oxide Semiconductor Thin-Film Transistors: Performance & Manufacturability for Display Applications. Digest of Technical Papers SID International Symposium, 2009, 40, 181-183.	0.3	15
44	Mobility Assessment of Depletion-Mode Oxide Thin-Film Transistors Using the Comprehensive Depletion-Mode Model. ECS Journal of Solid State Science and Technology, 2014, 3, Q3027-Q3031.	1.8	15
45	Ta-based amorphous metal thin films. Journal of Alloys and Compounds, 2015, 650, 102-105.	5.5	15
46	Demonstration of Fowler-Nordheim Tunneling in Simple Solution-Processed Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 36082-36087.	8.0	15
47	Electronic properties of amorphous zinc tin oxide films by junction capacitance methods. Journal of Non-Crystalline Solids, 2008, 354, 2801-2804.	3.1	14
48	Ultrabroadband density of states of amorphous In-Ga-Zn-O. Physical Review Research, 2020, 2, .	3.6	11
49	Amorphous Metal/Oxide Nanolaminates. ACS Applied Materials & Interfaces, 2010, 2, 1811-1813.	8.0	10
50	Oxide Thin-Film Transistors. Semiconductors and Semimetals, 2013, , 283-315.	0.7	9
51	Elucidation of bonding trends from variability in Atomic Solid State Energies. Journal of Solid State Chemistry, 2019, 274, 337-351.	2.9	9
52	AC/DC Rectification With Indium Gallium Oxide Thin-Film Transistors. IEEE Electron Device Letters, 2010, 31, 314-316.	3.9	8
53	Low-field transport in SiO ₂ . Journal of Non-Crystalline Solids, 2017, 459, 111-115.	3.1	8
54	TaWSi amorphous metal thin films: composition tuning to improve thermal stability. MRS Communications, 2017, 7, 715-720.	1.8	8

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55	69-2: Oxide-TFT Mobility Limits and CMOS Feasibility. Digest of Technical Papers SID International Symposium, 2016, 47, 944-946.	0.3	7
56	Hydrogen incorporation into amorphous indium gallium zinc oxide thin-film transistors. Journal of Applied Physics, 2022, 131, .	2.5	7
57	A framework for assessing amorphous oxide semiconductor thin-film transistor passivation. Journal of the Society for Information Display, 2012, 20, 589-595.	2.1	5
58	Engineering anisotropic dielectric response through amorphous laminate structures. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 777-784.	1.8	4
59	Effects of Oxygen Incorporation on the Physical Properties of Amorphous Metal Thin Films. Journal of Physical Chemistry C, 2014, 118, 9647-9651.	3.1	3
60	Amorphous Metal Thin Films for Thermal Inkjet Printing. Journal of Microelectromechanical Systems, 2018, 27, 289-295.	2.5	3
61	Transparent electronics and prospects for transparent displays. , 2003, , .		2
62	Bias Stability of zinc-tin-oxide thin film transistors with Al ₂ O ₃ gate dielectrics. , 2009, , .		2
63	Internal Photoemission Spectroscopy Measurements of the Energy Barrier Heights between ALD SiO ₂ and Ta-Based Amorphous Metals. ECS Transactions, 2018, 85, 729-734.	0.5	2
64	Solution-Processed Oxide Films, Devices, and Integrated Circuits. Materials Research Society Symposia Proceedings, 2006, 988, 1.	0.1	1
65	Corrections to "Electronic Conduction Mechanisms in Insulators" [Jan 18 223-230]. IEEE Transactions on Electron Devices, 2020, 67, 4547-4547.	3.0	0