

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
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68
all docs

68
docs citations

68
times ranked

4031
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen incorporation into amorphous indium gallium zinc oxide thin-film transistors. Journal of Applied Physics, 2022, 131, .	2.5	7
2	Corrections to "Electronic Conduction Mechanisms in Insulators" [Jan 18 223-230]. IEEE Transactions on Electron Devices, 2020, 67, 4547-4547.	3.0	0
3	TFT Technology: Advancements and Opportunities for Improvement. Information Display, 2020, 36, 9-13.	0.2	27
4	Ultrabroadband density of states of amorphous In-Ga-Zn-O. Physical Review Research, 2020, 2, .	3.6	11
5	Elucidation of bonding trends from variability in Atomic Solid State Energies. Journal of Solid State Chemistry, 2019, 274, 337-351.	2.9	9
6	Electronic Conduction Mechanisms in Insulators. IEEE Transactions on Electron Devices, 2018, 65, 223-230.	3.0	43
7	Demonstration of Fowler-Nordheim Tunneling in Simple Solution-Processed Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 36082-36087.	8.0	15
8	Amorphous Metal Thin Films for Thermal Inkjet Printing. Journal of Microelectromechanical Systems, 2018, 27, 289-295.	2.5	3
9	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
10	Low-field transport in SiO ₂ . Journal of Non-Crystalline Solids, 2017, 459, 111-115.	3.1	8
11	CuTaS ₃ : Intermetallic Transitions Enable High Solar Absorption. Chemistry of Materials, 2017, 29, 2594-2598.	6.7	21
12	Sputtered boron indium oxide thin-film transistors. Solid-State Electronics, 2017, 137, 80-84.	1.4	16
13	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
14	TaWSi amorphous metal thin films: composition tuning to improve thermal stability. MRS Communications, 2017, 7, 715-720.	1.8	8
15	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
16	Real- and reciprocal-space attributes of band tail states. AIP Advances, 2017, 7, .	1.3	47
17	Oxide TFTs: A Progress Report. Information Display, 2016, 32, 16-21.	0.2	39
18	69-2: Oxide-TFT Mobility Limits and CMOS Feasibility. Digest of Technical Papers SID International Symposium, 2016, 47, 944-946.	0.3	7

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19	Solid state dielectric screening versus band gap trends and implications. <i>Optical Materials</i> , 2016, 60, 181-187.	3.6	30
20	Thin-film transistor mobility limits considerations. <i>Journal of the Society for Information Display</i> , 2016, 24, 386-393.	2.1	19
21	Amorphous semiconductor mobility limits. <i>Journal of Non-Crystalline Solids</i> , 2016, 432, 196-199.	3.1	27
22	Lanthanum Aluminum Oxide Thin-Film Dielectrics from Aqueous Solution. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 1678-1684.	8.0	58
23	Amorphous In-Ga-Zn Oxide Semiconducting Thin Films with High Mobility from Electrochemically Generated Aqueous Nanocluster Inks. <i>Chemistry of Materials</i> , 2015, 27, 5587-5596.	6.7	41
24	Amorphous IGZO Thin-Film Transistors With Ultrathin Channel Layers. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 3692-3696.	3.0	30
25	Atomic solid state energy scale: Universality and periodic trends in oxidation state. <i>Journal of Solid State Chemistry</i> , 2015, 231, 138-144.	2.9	19
26	Ta-based amorphous metal thin films. <i>Journal of Alloys and Compounds</i> , 2015, 650, 102-105.	5.5	15
27	Design Meets Nature: Tetrahedrite Solar Absorbers. <i>Advanced Energy Materials</i> , 2015, 5, 1401506.	19.5	45
28	Flat-Panel Display Backplanes: LTPS or IGZO for AMLCDs or AMOLED Displays?. <i>Information Display</i> , 2014, 30, 26-29.	0.2	24
29	Mobility Assessment of Depletion-Mode Oxide Thin-Film Transistors Using the Comprehensive Depletion-Mode Model. <i>ECS Journal of Solid State Science and Technology</i> , 2014, 3, Q3027-Q3031.	1.8	15
30	Conduction processes in metal-insulator-metal diodes with Ta ₂ O ₅ and Nb ₂ O ₅ insulators deposited by atomic layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2014, 32, .	2.1	40
31	An amorphous oxide semiconductor thin-film transistor route to oxide electronics. <i>Current Opinion in Solid State and Materials Science</i> , 2014, 18, 53-61.	11.5	143
32	Effects of Oxygen Incorporation on the Physical Properties of Amorphous Metal Thin Films. <i>Journal of Physical Chemistry C</i> , 2014, 118, 9647-9651.	3.1	3
33	Oxide Thin-Film Transistors. <i>Semiconductors and Semimetals</i> , 2013, , 283-315.	0.7	9
34	Impact of humidity on the electrical performance of amorphous oxide semiconductor thin-film transistors. <i>Journal of the Society for Information Display</i> , 2013, 21, 310-316.	2.1	17
35	Earth-abundant Cu-based chalcogenide semiconductors as photovoltaic absorbers. <i>Journal of Materials Chemistry C</i> , 2013, 1, 657-662.	5.5	29
36	Barrier height estimation of asymmetric metal-insulator-metal tunneling diodes. <i>Journal of Applied Physics</i> , 2013, 114, 213703.	2.5	26

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37	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
38	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
39	Engineering anisotropic dielectric response through amorphous laminate structures. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 777-784.	1.8	4
40	Low-Energy Path to Dense HfO ₂ Thin Films with Aqueous Precursor. Chemistry of Materials, 2011, 23, 945-952.	6.7	87
41	Atomic Solid State Energy Scale. Journal of the American Chemical Society, 2011, 133, 16852-16860.	13.7	42
42	Advancing MIM Electronics: Amorphous Metal Electrodes. Advanced Materials, 2011, 23, 74-78.	21.0	106
43	Iron Chalcogenide Photovoltaic Absorbers. Advanced Energy Materials, 2011, 1, 748-753.	19.5	138
44	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
45	Transfer-character assessment of oxide thin-film transistors. Journal of the Society for Information Display, 2010, 18, 749-752.	2.1	24
46	Amorphous Metal/Oxide Nanolaminate. ACS Applied Materials & Interfaces, 2010, 2, 1811-1813.	8.0	10
47	AC/DC Rectification With Indium Gallium Oxide Thin-Film Transistors. IEEE Electron Device Letters, 2010, 31, 314-316.	3.9	8
48	Operating Temperature Trends in Amorphous InGaZnO Thin-Film Transistors. IEEE Electron Device Letters, 2010, 31, 818-820.	3.9	23
49	Zinc Tin Oxide Thin-Film-Transistor Enhancement/Depletion Inverter. IEEE Electron Device Letters, 2009, 30, 514-516.	3.9	55
50	Mapping out the distribution of electronic states in the mobility gap of amorphous zinc tin oxide. Applied Physics Letters, 2009, 95, .	3.3	44
51	Constant-Voltage-Bias Stress Testing of a-IGZO Thin-Film Transistors. IEEE Transactions on Electron Devices, 2009, 56, 1365-1370.	3.0	172
52	Bias Stability of zinc-tin-oxide thin film transistors with Al ₂ O ₃ gate dielectrics. , 2009, , .		2
53	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
54	Aqueous Inorganic Inks for Low-Temperature Fabrication of ZnO TFTs. Journal of the American Chemical Society, 2008, 130, 17603-17609.	13.7	324

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55	Electronic properties of amorphous zinc tin oxide films by junction capacitance methods. Journal of Non-Crystalline Solids, 2008, 354, 2801-2804.	3.1	14
56	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
57	Solution-Processed Aluminum Oxide Phosphate Thin-Film Dielectrics. Chemistry of Materials, 2007, 19, 4023-4029.	6.7	103
58	Transparent thin-film transistor exploratory development via sequential layer deposition and thermal annealing. Thin Solid Films, 2006, 515, 2717-2721.	1.8	18
59	Solution-Processed Oxide Films, Devices, and Integrated Circuits. Materials Research Society Symposia Proceedings, 2006, 988, 1.	0.1	1
60	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
61	APPLIED PHYSICS: Transparent Electronics. Science, 2003, 300, 1245-1246.	12.6	782
62	Transparent electronics and prospects for transparent displays. , 2003, , .		2
63	Transparent p-type conducting BaCu ₂ S ₂ films. Applied Physics Letters, 2002, 80, 4393-4394.	3.3	60
64	High-field transport and electroluminescence in ZnS phosphor layers. Journal of Applied Physics, 1998, 83, 3176-3185.	2.5	64
65	Impact ionization rate and high-field transport in ZnS with nonlocal band structure. Journal of Applied Physics, 1996, 80, 5054-5060.	2.5	22