Martin Allen

List of Publications by Year
in descending order

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90 papers	2,533 citations	201674 27 h-index	214800 47 g-index
93 all docs	93 docs citations	93 times ranked	2817 citing authors

#	Article	IF	Citations
1	Influence of oxygen vacancies on Schottky contacts to ZnO. Applied Physics Letters, 2008, 92, .	3.3	197
2	Silver oxide Schottky contacts on n-type ZnO. Applied Physics Letters, 2007, 91, .	3.3	142
3	Metal Schottky diodes on Zn-polar and O-polar bulk ZnO. Applied Physics Letters, 2006, 89, 103520.	3.3	139
4	Bulk transport measurements in ZnO: The effect of surface electron layers. Physical Review B, 2010, 81, .	3.2	104
5	Mist-CVD Grown Sn-Doped <inline-formula> <tex-math notation="LaTeX">$alpha $ </tex-math></inline-formula>-Ga₂O₃ MESFETs. IEEE Transactions on Electron Devices, 2015, 62, 3640-3644.	3.0	97
6	Influence of spontaneous polarization on the electrical and optical properties of bulk, single crystal ZnO. Applied Physics Letters, 2007, 90, 062104.	3.3	94
7	Influence of polarity and hydroxyl termination on the band bending at ZnO surfaces. Physical Review B, 2013, 88, .	3.2	89
8	Ion currents to cylindrical Langmuir probes in RF plasmas. Journal Physics D: Applied Physics, 1992, 25, 417-424.	2.8	80
9	Oxidized noble metal Schottky contacts to n-type ZnO. Applied Physics Letters, 2009, 94, .	3.3	71
10	Polarity effects in the x-ray photoemission of ZnO and other wurtzite semiconductors. Applied Physics Letters, 2011, 98, .	3.3	64
11	Enhanced UV exposure on a ski-field compared with exposures at sea level. Photochemical and Photobiological Sciences, 2005, 4, 429.	2.9	57
12	Direct comparison of plain and oxidized metal Schottky contacts on Î²-Ga2O3. Applied Physics Letters, 2019, 114, .	3.3	57
13	Defects in hydrothermally grown bulk ZnO. Applied Physics Letters, 2007, 91, .	3.3	53
14	Validation of Brief Questionnaire Measures of Sun Exposure and Skin Pigmentation Against Detailed and Objective Measures Including Vitamin <scp>D</scp> Status. Photochemistry and Photobiology, 2013, 89, 219-226.	2.5	50
15	Oxidized Metal Schottky Contacts on (010) <inline-formula> <tex-math notation="LaTeX">eta </tex-math> </inline-formula>-Ga₂O₃. IEEE Electron Device Letters, 2019, 40, 337-340.	3.9	49
16	Giant improvement in the rectifying performance of oxidized Schottky contacts to ZnO. Journal of Applied Physics, 2017, 121, .	2.5	42
17	A Critical Assessment of Two Types of Personal UV Dosimeters. Photochemistry and Photobiology, 2012, 88, 215-222.	2.5	41
18	The validated sun exposure questionnaire: association of objective and subjective measures of sun exposure in a Danish populationâ€based sample. British Journal of Dermatology, 2017, 176, 446-456.	1.5	41

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19	Metal-Semiconductor Field-Effect Transistors With Inâ€“Gaâ€“Znâ€“O Channel Grown by Nonvacuum-Processed Mist Chemical Vapor Deposition. IEEE Electron Device Letters, 2015, 36, 463-465.	3.9	37
20	Extracting the Richardson constant: IrOx/n-ZnO Schottky diodes. Applied Physics Letters, 2009, 94, .	3.3	35
21	Photoluminescence and the exciton-phonon coupling in hydrothermally grown ZnO. Physical Review B, 2011, 83, .	3.2	35
22	Temperature-Dependent Properties of Nearly Ideal ZnO Schottky Diodes. IEEE Transactions on Electron Devices, 2009, 56, 2160-2164.	3.0	34
23	Method of choice for fabrication of high-quality ZnO-based Schottky diodes. Journal of Applied Physics, 2014, 116, 194506.	2.5	33
24	Stability of the Surface Electron Accumulation Layers on the Nonpolar (101Ì…0) and (112Ì…0) Faces of ZnO. Journal of Physical Chemistry C, 2014, 118, 24575-24582.	3.1	31
25	Silver oxide Schottky contacts and metal semiconductor field-effect transistors on SnO₂ thin films. Applied Physics Express, 2016, 9, 041101.	2.4	30
26	Hydrogen-related excitons and their excited-state transitions in ZnO. Physical Review B, 2017, 95, .	3.2	29
27	High temperature (500â€‰Â°C) operating limits of oxidized platinum group metal (PtOx, IrOx, PdOx, RuOx) Schottky contacts on Î² -Ga2O3. Applied Physics Letters, 2020, 117, .	3.3	28
28	Surface state modulation through wet chemical treatment as a route to controlling the electrical properties of ZnO nanowire arrays investigated with XPS. Applied Surface Science, 2014, 320, 664-669.	6.1	27
29	Role of a universal branch-point energy at ZnO interfaces. Physical Review B, 2010, 82, .	3.2	24
30	Feasibility of smartphone diaries and personal dosimeters to quantitatively study exposure to ultraviolet radiation in a small national sample. Photodermatology Photoimmunology and Photomedicine, 2015, 31, 252-260.	1.5	23
31	Patterns of sun protective behaviors among Hispanic children in a skin cancer prevention intervention. Preventive Medicine, 2015, 81, 303-308.	3.4	23
32	Tuning the Band Bending and Controlling the Surface Reactivity at Polar and Nonpolar Surfaces of ZnO through Phosphonic Acid Binding. ACS Applied Materials & Interfaces, 2016, 8, 31392-31402.	8.0	23
33	Conductivity and transparency limits of Sb-doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Sn</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> grown by molecular beam epitaxy. Physical Review B, 2018, 98, .	3.2	23
34	Small doses from artificial UV sources elucidate the photo-production of vitamin D. Photochemical and Photobiological Sciences, 2013, 12, 1726-1737.	2.9	22
35	Zinc tin oxide metal semiconductor field effect transistors and their improvement under negative bias (illumination) temperature stress. Applied Physics Letters, 2017, 110, 073502.	3.3	22
36	Sun exposure and 25-hydroxyvitamin D3 levels in a community sample: Quantifying the association with electronic dosimeters. Journal of Exposure Science and Environmental Epidemiology, 2017, 27, 471-477.	3.9	22

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37	Synchrotron X-ray Photoelectron Spectroscopy Study of Electronic Changes at the ZnO Surface Following Aryldiazonium Ion Grafting: A Metal-to-Insulator Transition. Journal of Physical Chemistry C, 2018, 122, 12681-12693.	3.1	22
38	Electronic devices fabricated on mist-CVD-grown oxide semiconductors and their applications. Japanese Journal of Applied Physics, 2019, 58, 090606.	1.5	22
39	Impact of personal genomic risk information on melanoma prevention behaviors and psychological outcomes: a randomized controlled trial. Genetics in Medicine, 2021, 23, 2394-2403.	2.4	22
40	High-Temperature eta -Ga₂O₃Schottky Diodes and UVC Photodetectors Using RuO_xContacts. IEEE Electron Device Letters, 2019, 40, 1587-1590.	3.9	21
41	Optical and electronic properties of high quality Sb-doped SnO2 thin films grown by mist chemical vapor deposition. Journal of Applied Physics, 2019, 126, .	2.5	21
42	Electrical Characteristics of Top-Down ZnO Nanowire Transistors Using Remote Plasma ALD. IEEE Electron Device Letters, 2012, 33, 203-205.	3.9	20
43	The melanoma genomics managing your risk study: A protocol for a randomized controlled trial evaluating the impact of personal genomic risk information on skin cancer prevention behaviors. Contemporary Clinical Trials, 2018, 70, 106-116.	1.8	19
44	High-temperature (350â€‰Â°C) oxidized iridium Schottky contacts on Î² -Ga2O3. Applied Physics Letters, 2019, 114, .	3.3	19
45	Stable n-channel metal-semiconductor field effect transistors on ZnO films deposited using a filtered cathodic vacuum arc. Applied Physics Letters, 2012, 101, .	3.3	18
46	Optical and defect properties of hydrothermal ZnO with low lithium contamination. Applied Physics Letters, 2012, 101, 062105.	3.3	17
47	Effects of smartphone diaries and personal dosimeters on behavior in a randomized study of methods to document sunlight exposure. Preventive Medicine Reports, 2016, 3, 367-372.	1.8	17
48	Native Point Defect Measurement and Manipulation in ZnO Nanostructures. Materials, 2019, 12, 2242.	2.9	17
49	Stability of In-Ga-Zn-O metal-semiconductor field-effect-transistors under bias, illumination, and temperature stress. Applied Physics Letters, 2015, 107, .	3.3	16
50	Relationship between the hydroxyl termination and band bending at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mover) Tj ETQq0 0 0 rgB mathvariant="normal">G</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi>. Physical Review B, 2020, 102, .	3.2	16
51	Polarity effects in the optical properties of hydrothermal ZnO. Applied Physics Letters, 2013, 103, .	3.3	15
52	Solar Ultraviolet Radiation Exposure of South African Marathon Runners During Competition Marathon Runs and Training Sessions: A Feasibility Study. Photochemistry and Photobiology, 2015, 91, 971-979.	2.5	15
53	Comparing Handheld Meters and Electronic Dosimeters for Measuring Ultraviolet Levels under Shade and in the Sun. Photochemistry and Photobiology, 2016, 92, 208-214.	2.5	15
54	Polarity-dependent photoemission of in situ cleaved zinc oxide single crystals. Journal of Materials Research, 2012, 27, 2214-2219.	2.6	14

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55	Exposure to Solar UVR Suppresses Cell-Mediated Immunization Responses inÂHumans: The Australian Ultraviolet RadiationÂand Immunity Study. Journal of Investigative Dermatology, 2019, 139, 1545-1553.e6.	0.7	14
56	Dramatic Improvement in the Rectifying Properties of Pd Schottky Contacts on Î²-Gaâ‚‚Oâ‚ƒ During Their High-Temperature Operation. IEEE Transactions on Electron Devices, 2021, 68, 1791-1797.	3.0	13
57	Knowledge deficit, attitude and behavior scales association to objective measures of sun exposure and sunburn in a Danish population based sample. PLoS ONE, 2017, 12, e0178190.	2.5	13
58	Use of Electronic UV Dosimeters in Measuring Personal UV Exposures and Public Health Education. Atmosphere, 2020, 11, 744.	2.3	12
59	The presence of a (1 Ã— 1) oxygen overlayer on ZnO(0001) surfaces and at Schottky interfaces. Journal of Physics Condensed Matter, 2012, 24, 095007.	1.8	11
60	Effect of Schottky gate type and channel defects on the stability of transparent ZnO MESFETs. Semiconductor Science and Technology, 2015, 30, 024008.	2.0	11
61	The effect of covalently bonded aryl layers on the band bending and electron density of SnO₂ surfaces probed by synchrotron X-ray photoelectron spectroscopy. Physical Chemistry Chemical Physics, 2019, 21, 17913-17922.	2.8	11
62	Thermal stability of oxidized noble metal Schottky contacts to ZnO. Materials Science in Semiconductor Processing, 2017, 69, 9-12.	4.0	10
63	Impact of defect distribution on IrOx/ZnO interface doping and Schottky barriers. Applied Physics Letters, 2017, 111, .	3.3	10
64	Comparative study of deep defects in ZnO microwires, thin films and bulk single crystals. Applied Physics Letters, 2013, 103, .	3.3	9
65	Surface sensitivity of four-probe STM resistivity measurements of bulk ZnO correlated to XPS. Journal of Physics Condensed Matter, 2017, 29, 384001.	1.8	9
66	Prevalence of sun protection behaviors in Hispanic youth residing in a high ultraviolet light environment. Pediatric Dermatology, 2018, 35, e52-e54.	0.9	9
67	Novel approach to analysing large data sets of personal sun exposure measurements. Journal of Exposure Science and Environmental Epidemiology, 2016, 26, 613-620.	3.9	8
68	Characterization of personal solar ultraviolet radiation exposure using detrended fluctuation analysis. Environmental Research, 2020, 182, 108976.	7.5	8
69	Device quality ZnO grown using a Filtered Cathodic Vacuum Arc. Physica B: Condensed Matter, 2012, 407, 2903-2906.	2.7	7
70	Defect Characterization, Imaging, and Control in Wide-Bandgap Semiconductors and Devices. Journal of Electronic Materials, 2018, 47, 4980-4986.	2.2	7
71	Experimental exploration of the amphoteric defect model by cryogenic ion irradiation of a range of wide band gap oxide materials. Journal of Physics Condensed Matter, 2020, 32, 415704.	1.8	7
72	Persistent Photoconductivity in SnO₂ Thin Films Grown by Molecular Beam Epitaxy: The Dominant Roles of Water Vapor and Carrier Concentration. Journal of Physical Chemistry C, 2021, 125, 26967-26977.	3.1	7

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73	The interface structure of high performance ZnO Schottky diodes. Physica B: Condensed Matter, 2012, 407, 2867-2870.	2.7	6
74	Capturing Ultraviolet Radiation Exposure and Physical Activity: Feasibility Study and Comparison Between Self-Reports, Mobile Apps, Dosimeters, and Accelerometers. JMIR Research Protocols, 2018, 7, e102.	1.0	6
75	Size-controlled, high optical quality ZnO nanowires grown using colloidal Au nanoparticles and ultra-small cluster catalysts. APL Materials, 2019, 7, 022518.	5.1	5
76	Temperature-Dependent Electrical Properties of Graphitic Carbon Schottky Contacts to Î²-Gaâ„Oâ„ƒ. IEEE Transactions on Electron Devices, 2020, 67, 5669-5675.	3.0	5
77	Performance of in situ oxidized platinum/iridium alloy Schottky contacts on (001), (2Â¯01), and (010) Î² -Ga2O3. Applied Physics Letters, 2022, 120, .	3.3	5
78	Mobility of indium on the ZnO(0001) surface. Applied Physics Letters, 2015, 106, .	3.3	4
79	Bistability of a hydrogen defect with a vibrational mode at 3326 <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>cm</mml:mi></mml:mrow><mml:mrow><m in ZnO. Physical Review B, 2019, 99, .	3.2	4
80	Bidirectional Control of the Band Bending at the (2Ì…01) and (010) Surfaces of Î²-Ga₂O₃ Using Aryldiazonium Ion and Phosphonic Acid Grafting. ACS Applied Electronic Materials, 2021, 3, 5608-5620.	4.3	4
81	Structural investigation of ZnO O-polar () surfaces and Schottky interfaces. Surface Science, 2013, 610, 22-26.	1.9	3
82	Correlates of sun protection behaviors among Hispanic children residing in a high UVR environment. Photodermatology Photoimmunology and Photomedicine, 2017, 33, 75-83.	1.5	3
83	A Comparison of Solar Ultraviolet Radiation Exposure in Urban Canyons in Venice, Italy and Johannesburg, South Africa. Photochemistry and Photobiology, 2020, 96, 1148-1153.	2.5	3
84	Electroreduction of Aryldiazonium Ion at the Polar and Nonâ€Polar Faces of ZnO: Characterisation of the Grafted Films and Their Influence on Nearâ€Surface Band Bending. ChemPhysChem, 2021, 22, 1344-1351.	2.1	3
85	Performance of metal-semiconductor field effect transistors on mist chemical-vapor-deposition grown ZnO channels with intentionally oxidized AgOx Schottky contact gates. Journal of Applied Physics, 2021, 130, .	2.5	3
86	Schottky Contact Behaviour as a Function of Metal and ZnO Surface Polarity. Materials Research Society Symposia Proceedings, 2006, 957, 1.	0.1	2
87	Identifying chemical and physical changes in wide-gap semiconductors using real-time and near ambient-pressure XPS. Faraday Discussions, 2022, , .	3.2	2
88	Characterization of Tin Oxide Grown by Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 2014, 1633, 13-18.	0.1	1
89	Effect of an interactive educational activity using handheld ultraviolet radiation dosimeters on sun protection knowledge among Australian primary school students. Preventive Medicine Reports, 2022, 25, 101690.	1.8	1
90	Growth of epitaxial ZnO films on sapphire substrates by plasma assisted molecular beam epitaxy. , 2015, , .		0