

Mmantsae Diale

List of Publications by Year in descending order

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86
papers

1,168
citations

430442

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28
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docs citations

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times ranked

1351
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of temperature dependent measurements on Pd/ZnO Schottky barrier diodes and the determination of the Richardson constant. <i>Physica B: Condensed Matter</i> , 2009, 404, 1092-1096.	1.3	82
2	Analysis of GaN cleaning procedures. <i>Applied Surface Science</i> , 2005, 246, 279-289.	3.1	60
3	Laplace current deep level transient spectroscopy measurements of defect states in methylammonium lead bromide single crystals. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	50
4	The influence of high energy electron irradiation on the Schottky barrier height and the Richardson constant of Ni/4H-SiC Schottky diodes. <i>Materials Science in Semiconductor Processing</i> , 2015, 39, 112-118.	1.9	48
5	Heterojunction of nanostructured $\text{Fe}_2\text{O}_3/\text{CuO}$ for enhancement of photoelectrochemical water splitting. <i>Journal of Alloys and Compounds</i> , 2021, 863, 158724.	2.8	48
6	Analysis of temperature-dependant current-voltage characteristics and extraction of series resistance in Pd/ZnO Schottky barrier diodes. <i>Physica B: Condensed Matter</i> , 2016, 480, 58-62.	1.3	46
7	Temperature-dependent current-voltage characteristics of Pd/ZnO Schottky barrier diodes and the determination of the Richardson constant. <i>Materials Science in Semiconductor Processing</i> , 2015, 34, 359-364.	1.9	40
8	The dependence of barrier height on temperature for Pd Schottky contacts on ZnO. <i>Physica B: Condensed Matter</i> , 2009, 404, 4402-4405.	1.3	34
9	Effects of chemical treatment on barrier height and ideality factors of Au/GaN Schottky diodes. <i>Physica B: Condensed Matter</i> , 2009, 404, 4415-4418.	1.3	29
10	Effects of hydrogen, oxygen, and argon annealing on the electrical properties of ZnO and ZnO devices studied by current-voltage, deep level transient spectroscopy, and Laplace DLTS. <i>Journal of Applied Physics</i> , 2012, 111, 094504.	1.1	29
11	Analysis of current-voltage measurements on Au/Ni/n-GaN Schottky contacts in a wide temperature range. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2010, 171, 1-4.	1.7	26
12	Electrical characterization of 5.4 MeV alpha-particle irradiated 4H-SiC with low doping density. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015, 358, 112-116.	0.6	26
13	Nanostructured hematite thin films for photoelectrochemical water splitting. <i>Physica B: Condensed Matter</i> , 2018, 535, 67-71.	1.3	26
14	Thermal annealing behaviour of platinum, nickel and titanium Schottky barrier diodes on n-Ge (1 0 0). <i>Journal of Alloys and Compounds</i> , 2010, 492, 649-655.	2.8	25
15	Influence of ammonia concentration on the microstructure, electrical and raman properties of low temperature chemical bath deposited ZnO nanorods. <i>Materials Science in Semiconductor Processing</i> , 2017, 71, 209-216.	1.9	22
16	Structural, morphological, optical and electrical properties of Schottky diodes based on CBD deposited ZnO:Cu nanorods. <i>Superlattices and Microstructures</i> , 2017, 107, 163-171.	1.4	21
17	Effects of 5.4 MeV alpha-particle irradiation on the electrical properties of nickel Schottky diodes on 4H-SiC. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015, 365, 264-268.	0.6	20
18	The effect of high temperatures on the electrical characteristics of Au/n-GaAs Schottky diodes. <i>Physica B: Condensed Matter</i> , 2016, 480, 201-205.	1.3	20

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19	Current-voltage temperature characteristics of Au/n-Ge (100) Schottky diodes. <i>Physica B: Condensed Matter</i> , 2012, 407, 1574-1577.	1.3	18
20	Influence of interfacial copper on the room temperature oxidation of silicon. <i>Journal of Applied Physics</i> , 1996, 79, 2074-2078.	1.1	17
21	Strong plasmonic fluorescence enhancement of individual plant light-harvesting complexes. <i>Nanoscale</i> , 2019, 11, 15139-15146.	2.8	16
22	Effects of high temperature annealing on single crystal ZnO and ZnO devices. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	15
23	Response of Ni/4H-SiC Schottky barrier diodes to alpha-particle irradiation at different fluences. <i>Physica B: Condensed Matter</i> , 2016, 480, 196-200.	1.3	15
24	Modified annealing approach for preparing multi-layered hematite thin films for photoelectrochemical water splitting. <i>Materials Research Bulletin</i> , 2020, 131, 110964.	2.7	15
25	Electrical characterization of defects introduced during electron beam deposition of W Schottky contacts on n-type 4H-SiC. <i>Materials Science in Semiconductor Processing</i> , 2016, 51, 20-24.	1.9	14
26	Electrical Characterization of High Energy Electron Irradiated Ni/4H-SiC Schottky Barrier Diodes. <i>Journal of Electronic Materials</i> , 2016, 45, 4177-4182.	1.0	13
27	Structural and optical properties of hematite and L-arginine/hematite nanostructures prepared by thermal spray pyrolysis. <i>Surfaces and Interfaces</i> , 2020, 18, 100394.	1.5	13
28	Thermal stability study of palladium and cobalt Schottky contacts on n-Ge (100) and defects introduced during contacts fabrication and annealing process. <i>Physica B: Condensed Matter</i> , 2009, 404, 4482-4484.	1.3	12
29	The fine structure of electron irradiation induced EL2-like defects in n-GaAs. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	12
30	Influence of anodization time on the surface modifications on Fe_2O_3 photoanode upon anodization. <i>Journal of Materials Research</i> , 2016, 31, 1580-1587.	1.2	12
31	Morphology, structural and optical properties of iron oxide thin film photoanodes in photoelectrochemical cell: Effect of electrochemical oxidation. <i>Physica B: Condensed Matter</i> , 2016, 480, 91-94.	1.3	12
32	Effects of surface morphology on the optical and electrical properties of Schottky diodes of CBD deposited ZnO nanostructures. <i>Physica B: Condensed Matter</i> , 2018, 535, 175-180.	1.3	12
33	Density Functional Theory study of Cu doped {0001} and $\{01\overline{1}2\}$ surfaces of hematite for water splitting. <i>MRS Advances</i> , 2018, 3, 669-678.	0.5	12
34	Synthesis and characterisation of methylammonium lead tri-bromide perovskites thin films by sequential physical vapor deposition. <i>Physica B: Condensed Matter</i> , 2020, 578, 411884.	1.3	12
35	Polyaniline nanoparticles for the selective recognition of aldrin: Synthesis, characterization, and adsorption properties. <i>Synthetic Metals</i> , 2017, 233, 79-85.	2.1	11
36	Characterization of sequential physical vapor deposited methylammonium lead tri-iodide perovskite thin films. <i>Vacuum</i> , 2020, 182, 109727.	1.6	11

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37	A Promising Three-Step Heat Treatment Process for Preparing CuO Films for Photocatalytic Hydrogen Evolution from Water. ACS Omega, 2021, 6, 33398-33408.	1.6	11
38	Comparison of metal Schottky contacts on n-Ge (100) at different annealing temperatures. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 248-251.	0.8	10
39	Effect of thermal treatment on the characteristics of iridium Schottky barrier diodes on n-Ge (100). Journal of Alloys and Compounds, 2012, 513, 44-49.	2.8	10
40	Defects induced by solid state reactions at the tungsten-silicon carbide interface. Journal of Applied Physics, 2018, 123, .	1.1	10
41	Influence of coating techniques on the optical and structural properties of hematite thin films. Surfaces and Interfaces, 2019, 17, 100384.	1.5	10
42	Effects of L-arginine concentration on hematite nanostructures synthesized by spray pyrolysis and chemical bath deposition. Physica B: Condensed Matter, 2020, 581, 411924.	1.3	10
43	Correlation Between Barrier Heights and Ideality Factors of Ni/n-Ge (100) Schottky Barrier Diodes. Journal of the Korean Physical Society, 2010, 57, 1970-1975.	0.3	10
44	Hall effect studies of donors and acceptors in different types of bulk ZnO modified by annealing and hydrogen implantation. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 569-572.	0.8	9
45	A study of the T2 defect and the emission properties of the E3 deep level in annealed melt grown ZnO single crystals. Journal of Applied Physics, 2013, 113, 124502.	1.1	9
46	Electrical characterization of defects induced by electron beam exposure in low doped n-GaAs. Nuclear Instruments & Methods in Physics Research B, 2017, 409, 36-40.	0.6	9
47	Defects in swift heavy ion irradiated n-4H-SiC. Nuclear Instruments & Methods in Physics Research B, 2019, 460, 119-124.	0.6	9
48	Exploring the stability and electronic properties of Zn-doped hematite surfaces for photoelectrochemical water splitting. Journal of Physics and Chemistry of Solids, 2020, 136, 109159.	1.9	9
49	Sequential physical vapor deposited methylammonium lead tri-iodide perovskites on FTO and ITO modified zinc oxide nanorods for perovskite solar cells. Physica B: Condensed Matter, 2022, 625, 413462.	1.3	9
50	Thermal annealing behaviour of Pd Schottky contacts on melt-grown single crystal ZnO studied by IV and CV measurements. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 180-183.	1.7	8
51	Use of interfacial layers to prolong hole lifetimes in hematite probed by ultrafast transient absorption spectroscopy. Physica B: Condensed Matter, 2018, 535, 138-142.	1.3	8
52	Electrical characterisation of deep level defects created by bombarding the n-type 4H-SiC with 1.8 MeV protons. Surface and Coatings Technology, 2018, 355, 2-6.	2.2	8
53	Identification of Exciton Annihilation in Hematite Thin Films. Journal of Physical Chemistry C, 2019, 123, 18676-18684.	1.5	8
54	Annealing and surface conduction on Hydrogen peroxide treated bulk melt-grown, single crystal ZnO. Physica B: Condensed Matter, 2012, 407, 1624-1627.	1.3	7

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55	DLTS characterization of defects in GaN induced by electron beam exposure. <i>Materials Science in Semiconductor Processing</i> , 2017, 64, 29-31.	1.9	7
56	Properties of ITO thin films rapid thermally annealed in different exposures of nitrogen gas. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 16406-16413.	1.1	7
57	Characterization of AlGaIn-based metal-semiconductor solar-blind UV photodiodes with IrO ₂ Schottky contacts. <i>Physica B: Condensed Matter</i> , 2012, 407, 1529-1532.	1.3	6
58	Electrically Enhanced Transition Metal Dichalcogenides as Charge Transport Layers in Metallophthalocyanine-Based Solar Cells. <i>Frontiers in Chemistry</i> , 2020, 8, 612418.	1.8	6
59	Ab Initio Studies of Bimetallic-Doped {0001} Hematite Surface for Enhanced Photoelectrochemical Water Splitting. <i>Catalysts</i> , 2021, 11, 940.	1.6	6
60	Electrical Characterization of Metastable Defects Introduced in GaN by Eu-Ion Implantation. <i>Materials Science Forum</i> , 0, 679-680, 804-807.	0.3	5
61	Electrical Characterisation of electron beam exposure induced Defects in silicon. <i>Physica B: Condensed Matter</i> , 2016, 480, 206-208.	1.3	5
62	Deep level transient spectroscopy characterisation of Xe irradiated GaN. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017, 409, 69-71.	0.6	5
63	Effect of 6R and 12R lead iodide polytypes on MAPbI ₃ perovskite device performance. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 13011-13018.	1.1	5
64	Characterization of Thin MAPb(I _{1-x} Br _x) ₃ Alloy Halide Perovskite Films Prepared by Sequential Physical Vapor Deposition. <i>Frontiers in Energy Research</i> , 2021, 9, .	1.2	5
65	Effects of Film Thickness and Coating Techniques on the Photoelectrochemical Behaviour of Hematite Thin Films. <i>Frontiers in Energy Research</i> , 2021, 9, .	1.2	5
66	Mono-Doped and Co-Doped Nanostructured Hematite for Improved Photoelectrochemical Water Splitting. <i>Nanomaterials</i> , 2022, 12, 366.	1.9	5
67	Electrical characterisation of ruthenium Schottky contacts on n-Ge (100). <i>Physica B: Condensed Matter</i> , 2012, 407, 1570-1573.	1.3	4
68	Optoelectronic characterization of Au/Ni/n-AlGaIn photodiodes after annealing at different temperatures. <i>Physica B: Condensed Matter</i> , 2012, 407, 1628-1630.	1.3	4
69	Role of substrate and annealing temperature on the structure of ZnO and Al _x Zn _{1-x} O thin films for solar cell applications. <i>Physica B: Condensed Matter</i> , 2016, 480, 72-79.	1.3	4
70	Characterisation of Cs ion implanted GaN by DLTS. <i>Physica B: Condensed Matter</i> , 2018, 535, 96-98.	1.3	4
71	Reduction of recombination rates due to volume increasing, annealing, and tetraethoxysilicate treatment in hematite thin films. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 1957-1967.	1.6	4
72	Electrical characterization of defects introduced during sputter deposition of tungsten on n type 4H-SiC. <i>Materials Science in Semiconductor Processing</i> , 2018, 81, 122-126.	1.9	3

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73	Influence of precursor concentration and deposition temperature on the photoactivity of hematite electrodes for water splitting. <i>Materials Today Communications</i> , 2020, 25, 101459.	0.9	3
74	The behavior of hydrothermally synthesized hematite nanorods prepared on spin coated seed layers. <i>Materials Research Express</i> , 2022, 9, 026401.	0.8	3
75	Studies of carbon behaviour on GaN surface in ultra high vacuum (UHV). <i>Surface and Interface Analysis</i> , 2005, 37, 1158-1160.	0.8	2
76	Optical and electrical characterization of AlGaIn based Schottky photodiodes after annealing at different temperatures. <i>Physica B: Condensed Matter</i> , 2014, 439, 119-121.	1.3	2
77	Electrical characterization of electron irradiated and annealed lowly-doped 4H-SiC. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017, 409, 41-45.	0.6	2
78	Photoelectrochemical performance and ultrafast dynamics of photogenerated electrons and holes in highly titanium-doped hematite. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 27450-27457.	1.3	2
79	Growth and degradation of methylammonium lead tri-bromide perovskite thin film at metal/perovskite interfaces. <i>Thin Solid Films</i> , 2021, 722, 138568.	0.8	2
80	In Situ Study of Low-Temperature Irradiation-Induced Defects in Silicon Carbide. <i>Journal of Electronic Materials</i> , 2019, 48, 3849-3853.	1.0	1
81	Women in Physics in South Africa: A Passionate Career Development. , 2009, , .		0
82	Women in Physics in South Africa: The Story to 2008. , 2009, , .		0
83	Women in physics in South Africa: Progress to 2011. , 2013, , .		0
84	The journey: Women in physics in South Africa. <i>AIP Conference Proceedings</i> , 2015, , .	0.3	0
85	Chemical and electrical characteristics of annealed Ni/Au and Ni/Ir/Au contacts on AlGaIn. <i>Physica B: Condensed Matter</i> , 2016, 480, 209-212.	1.3	0
86	Progress thus far: Women in physics in South Africa. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	0