

Jackie M Nel

List of Publications by Year in descending order

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70
papers

922
citations

471509

17
h-index

552781

26
g-index

72
all docs

72
docs citations

72
times ranked

951
citing authors

#	ARTICLE	IF	CITATIONS
1	Room temperature and high-pressure-pulsed laser deposition of nanocrystalline VO ₂ thin films on glass substrate: plasma and film analyses. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	2.3	2
2	Deep-level transient spectroscopy of GaN grown by electrochemical deposition and irradiated with alpha particles. <i>Materials Science in Semiconductor Processing</i> , 2021, 127, 105685.	4.0	3
3	Effect of (Ce, Al) co-doped ZnO thin films on the Schottky diode properties fabricated using the sol-gel spin coating. <i>Materials Science in Semiconductor Processing</i> , 2019, 103, 104612.	4.0	24
4	Defects in swift heavy ion irradiated n-4H-SiC. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019, 460, 119-124.	1.4	9
5	Effects of thermal treatment on structural, optical and electrical properties of NiO thin films. <i>Physica B: Condensed Matter</i> , 2019, 575, 411694.	2.7	15
6	Influence (Ce and Sm) co-doping ZnO nanorods on the structural, optical and electrical properties of the fabricated Schottky diode using chemical bath deposition. <i>Journal of Alloys and Compounds</i> , 2019, 810, 151929.	5.5	18
7	The effect of alpha particle irradiation on electrical properties and defects of ZnO thin films prepared by sol-gel spin coating. <i>Materials Science in Semiconductor Processing</i> , 2019, 101, 82-86.	4.0	13
8	In Situ Study of Low-Temperature Irradiation-Induced Defects in Silicon Carbide. <i>Journal of Electronic Materials</i> , 2019, 48, 3849-3853.	2.2	1
9	Structural, optical and electrical properties of the fabricated Schottky diodes based on ZnO, Ce and Sm doped ZnO films prepared via wet chemical technique. <i>Materials Research Bulletin</i> , 2019, 115, 12-18.	5.2	29
10	Processing of and electrical properties of ZnO thin films and nanorods for sensor applications. , 2019, , .		1
11	Effect of Sm doping ZnO nanorods on structural optical and electrical properties of Schottky diodes prepared by chemical bath deposition. <i>Materials Science in Semiconductor Processing</i> , 2018, 79, 53-60.	4.0	51
12	Defects induced by solid state reactions at the tungsten-silicon carbide interface. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	10
13	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.	4.0	3
14	7 th South African Conference on Photonic Materials. <i>Physica B: Condensed Matter</i> , 2018, 535, iii.	2.7	0
15	Structural, optical and electrical characteristics of nickel oxide thin films synthesised through chemical processing method. <i>Physica B: Condensed Matter</i> , 2018, 535, 24-28.	2.7	15
16	Effect of dopant density on contact potential difference across n-type GaAs homojunctions using Kelvin Probe Force Microscopy. <i>Physica B: Condensed Matter</i> , 2018, 535, 84-88.	2.7	3
17	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.	2.7	12
18	Structural, optical and electrical properties of a Schottky diode fabricated on Ce doped ZnO nanorods grown using a two step chemical bath deposition. <i>Materials Science in Semiconductor Processing</i> , 2018, 87, 187-194.	4.0	17

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19	Structural, morphological, optical and electrical properties of Schottky diodes based on CBD deposited ZnO:Cu nanorods. Superlattices and Microstructures, 2017, 107, 163-171.	3.1	21
20	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.	1.4	9
21	Influence of ammonia concentration on the microstructure, electrical and raman properties of low temperature chemical bath deposited ZnO nanorods. Materials Science in Semiconductor Processing, 2017, 71, 209-216.	4.0	22
22	6th South African Conference on Photonic Materials (SACPM 2015). Physica B: Condensed Matter, 2016, 480, iii.	2.7	0
23	Role of substrate and annealing temperature on the structure of ZnO and Al _x Zn _{1-x} O thin films for solar cell applications. Physica B: Condensed Matter, 2016, 480, 72-79.	2.7	4
24	The Origin of Defects Induced in Ultra-Pure Germanium by Electron Beam Deposition. Springer Series in Materials Science, 2015, , 363-380.	0.6	6
25	Unexpected properties of the inductively coupled plasma induced defect in germanium. Physica B: Condensed Matter, 2014, 439, 97-100.	2.7	4
26	Implementation of an AlGaIn-based solar-blind UV four-quadrant detector. Physica B: Condensed Matter, 2014, 439, 93-96.	2.7	16
27	Electrical characterization of defects introduced in n-Ge during electron beam deposition or exposure. Journal of Applied Physics, 2013, 114, 173708.	2.5	15
28	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.	2.5	9
29	Effects of high temperature annealing on single crystal ZnO and ZnO devices. Journal of Applied Physics, 2012, 111, .	2.5	15
30	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. Journal of Applied Physics, 2012, 111, 094504.	2.5	29
31	Electrical characterization of defects introduced in n-Si during electron beam deposition of Pt. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1926-1933.	1.8	9
32	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.	5.5	10
33	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.	3.5	8
34	Characterization of AlGaIn-based metal-semiconductor solar-blind UV photodiodes with IrO ₂ Schottky contacts. Physica B: Condensed Matter, 2012, 407, 1529-1532.	2.7	6
35	Electrical characterisation of ruthenium Schottky contacts on n-Ge (100). Physica B: Condensed Matter, 2012, 407, 1570-1573.	2.7	4
36	Current-voltage temperature characteristics of Au/n-Ge (100) Schottky diodes. Physica B: Condensed Matter, 2012, 407, 1574-1577.	2.7	18

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37	Annealing and surface conduction on Hydrogen peroxide treated bulk melt-grown, single crystal ZnO. <i>Physica B: Condensed Matter</i> , 2012, 407, 1624-1627.	2.7	7
38	A comparative study of the electrical properties of Pd/ZnO Schottky contacts fabricated using electron beam deposition and resistive/thermal evaporation techniques. <i>Journal of Applied Physics</i> , 2011, 110, 094504.	2.5	13
39	Calibration of an optoelectronic system for the characterisation of ultraviolet sensitive photodiodes. <i>South African Journal of Science and Technology</i> , 2011, 30, .	0.1	0
40	Determination of the laterally homogeneous barrier height of palladium Schottky barrier diodes on n-Ge (1 1 1). <i>Materials Science in Semiconductor Processing</i> , 2010, 13, 371-375.	4.0	13
41	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.	3.5	26
42	Comparison of metal Schottky contacts on n-Ge (100) at different annealing temperatures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 248-251.	0.8	10
43	Boron carbide coatings on diamond particles. <i>Diamond and Related Materials</i> , 2010, 19, 1411-1414.	3.9	15
44	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.	5.5	25
45	Correlation Between Barrier Heights and Ideality Factors of Ni/n-Ge (100) Schottky Barrier Diodes. <i>Journal of the Korean Physical Society</i> , 2010, 57, 1970-1975.	0.7	10
46	Damage formation in Ge during Ar ⁺ and He ⁺ implantation at 15K. <i>Physica B: Condensed Matter</i> , 2009, 404, 4382-4385.	2.7	2
47	The dependence of barrier height on temperature for Pd Schottky contacts on ZnO. <i>Physica B: Condensed Matter</i> , 2009, 404, 4402-4405.	2.7	34
48	Microstructural and surface characterization of thin gold films on n-Ge (111). <i>Physica B: Condensed Matter</i> , 2009, 404, 4493-4495.	2.7	0
49	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.	2.7	12
50	Damage formation in Ge during Ar ⁺ implantation at 15 K. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 583-586.	0.8	0
51	The effect of etching on Ge(111) surfaces and Pd Schottky contacts. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 587-590.	0.8	0
52	IV and CV measurements of Schottky diodes deposited on Ge by electron beam and sputter deposition. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 626-629.	0.8	2
53	Electrical characterization of defects introduced in Ge during electron beam deposition of different metals. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008, 205, 159-161.	1.8	11
54	Electronic properties of shallow level defects in ZnO grown by pulsed laser deposition. <i>Journal of Physics: Conference Series</i> , 2008, 100, 042038.	0.4	4

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55	RBS investigation of annealed thin gold layers on crystalline germanium. Journal of Physics: Conference Series, 2008, 100, 042005.	0.4	1
56	Dependence of Trap Concentrations in ZnO Thin Films on Annealing Conditions. Journal of the Korean Physical Society, 2008, 53, 2861-2863.	0.7	17
57	Electrical characterization of H ⁺ ion irradiated n-ZnO. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 311-314.	1.4	15
58	Electrical characterization of defects in heavy-ion implanted n-type Ge. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 169-171.	1.4	9
59	Electronic properties of defects in pulsed-laser deposition grown ZnO with levels at 300 and 370meV below the conduction band. Physica B: Condensed Matter, 2007, 401-402, 378-381.	2.7	30
60	Electrical characterization of He ⁺ irradiated n-ZnO. Physica Status Solidi (B): Basic Research, 2007, 244, 1544-1548.	1.5	15
61	Electrical Characterization of Defects Introduced During Sputter Deposition of Schottky Contacts on n-type Ge. Journal of Electronic Materials, 2007, 36, 1604-1607.	2.2	9
62	Electrical characterization of defects introduced during electron beam deposition of Schottky contacts on n-type Ge. Materials Science in Semiconductor Processing, 2006, 9, 576-579.	4.0	10
63	Electrical characterization of growth-induced defects in bulk-grown ZnO. Superlattices and Microstructures, 2006, 39, 17-23.	3.1	42
64	Electrical characterization of defects introduced in n-type Ge during indium implantation. Applied Physics Letters, 2006, 89, 152123.	3.3	15
65	Electrical characterisation of NiO/ZnO structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 674-677.	0.8	15
66	Fabrication and characterisation of NiO/ZnO structures. Sensors and Actuators B: Chemical, 2004, 100, 270-276.	7.8	57
67	Electrical characterization of as-grown and particle irradiated n-type bulk ZnO. , 2004, , .		0
68	Electrical defects introduced during high-temperature irradiation of GaN and AlGaN. Physica B: Condensed Matter, 2003, 340-342, 421-425.	2.7	23
69	Microstructures of electrodeposited CdS layers. Thin Solid Films, 2003, 436, 186-195.	1.8	38
70	Using scanning force microscopy (SFM) to investigate various cleaning procedures of different transparent conducting oxide substrates. Applied Surface Science, 1998, 134, 22-30.	6.1	11