

Elder Alpes de Vasconcelos

List of Publications by Year in descending order

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Version: 2024-02-01

57
papers

741
citations

566801

15
h-index

580395

25
g-index

57
all docs

57
docs citations

57
times ranked

920
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Potential of a simplified measurement scheme and device structure for a low cost label-free point-of-care capacitive biosensor. <i>Biosensors and Bioelectronics</i> , 2009, 25, 870-876. | 5.3 | 62 |
| 2 | Growth of sub-micron fibres of pure polyaniline using the electrospinning technique. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 1068-1071. | 1.3 | 49 |
| 3 | Fabrication of high quality silicon-polyaniline heterojunctions. <i>Applied Surface Science</i> , 2002, 190, 390-394. | 3.1 | 45 |
| 4 | Production of Ball-Lightning-Like Luminous Balls by Electrical Discharges in Silicon. <i>Physical Review Letters</i> , 2007, 98, 048501. | 2.9 | 42 |
| 5 | Enhanced lifetime in porous silicon light-emitting diodes with fluorine doped tin oxide electrodes. <i>Thin Solid Films</i> , 2008, 517, 870-873. | 0.8 | 35 |
| 6 | A study of silicon Schottky diode structures for NOx gas detection. <i>Sensors and Actuators B: Chemical</i> , 2000, 65, 154-156. | 4.0 | 33 |
| 7 | A simplified reactive thermal evaporation method for indium tin oxide electrodes. <i>Applied Surface Science</i> , 2008, 255, 755-757. | 3.1 | 30 |
| 8 | An improved description of the dielectric breakdown in oxides based on a generalized Weibull distribution. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 361, 209-215. | 1.2 | 29 |
| 9 | Highly sensitive thermistors based on high-purity polycrystalline cubic silicon carbide. <i>Sensors and Actuators A: Physical</i> , 2000, 83, 167-171. | 2.0 | 26 |
| 10 | Immobilization of urease on vapour phase stain etched porous silicon. <i>Process Biochemistry</i> , 2007, 42, 429-433. | 1.8 | 25 |
| 11 | Nanowire growth on Si wafers by oxygen implantation and annealing. <i>Applied Surface Science</i> , 2006, 252, 5572-5574. | 3.1 | 22 |
| 12 | A new method for luminescent porous silicon formation: reaction-induced vapor-phase stain etch. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, 1539-1542. | 0.8 | 21 |
| 13 | Polyaniline nanofilms as a monitoring label and dosimetric device for gamma radiation. <i>Materials Characterization</i> , 2003, 50, 127-130. | 1.9 | 20 |
| 14 | Spectroscopic characteristics of doped nanoporous aluminum oxide. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2004, 112, 171-174. | 1.7 | 20 |
| 15 | Conducting Polymer/Silicon Heterojunction Diode for Gamma Radiation Detection. <i>Radiation Protection Dosimetry</i> , 2002, 101, 85-88. | 0.4 | 16 |
| 16 | Photoluminescence characteristics of rare earth-doped nanoporous aluminum oxide. <i>Applied Surface Science</i> , 2004, 234, 457-461. | 3.1 | 16 |
| 17 | Gas response and modeling of NO-sensitive thin-Pt SiC schottky diodes. <i>Sensors and Actuators B: Chemical</i> , 2003, 92, 181-185. | 4.0 | 15 |
| 18 | Thermal-lens and photo-acoustic methods for the determination of SiC thermal properties. <i>Microelectronics Journal</i> , 2005, 36, 977-980. | 1.1 | 15 |

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|----|--|-----|-----------|
| 19 | A conducting polymer-silicon heterojunction as a new ultraviolet photodetector. Applied Surface Science, 2008, 255, 688-690. | 3.1 | 15 |
| 20 | Synthesis and characterization of MCM-41 powder and its deposition by spin-coating. Optik, 2019, 185, 429-440. | 1.4 | 15 |
| 21 | Tailoring the Electrical Properties of ZnO/Polyaniline Heterostructures for Device Applications. Journal of the Korean Physical Society, 2011, 58, 1256-1260. | 0.3 | 14 |
| 22 | Electrical and microscopic characterization of ZnO films on p-SiC substrates. Solid State Communications, 2011, 151, 1252-1255. | 0.9 | 12 |
| 23 | Correlation between dopant reduction and interfacial defects in low-energy x-ray-irradiated MOS capacitors. Semiconductor Science and Technology, 1997, 12, 1032-1037. | 1.0 | 11 |
| 24 | A silicon-polymer heterostructure for sensor applications. Brazilian Journal of Physics, 2002, 32, 421-423. | 0.7 | 11 |
| 25 | AFM studies of polyaniline nanofilms irradiated with gamma rays. Microelectronics Journal, 2003, 34, 511-513. | 1.1 | 10 |
| 26 | Fabrication and electrical characterization of polyaniline/silicon carbide heterojunctions. Journal Physics D: Applied Physics, 2011, 44, 205101. | 1.3 | 10 |
| 27 | Effect of ageing on x-ray induced dopant passivation in MOS capacitors. Semiconductor Science and Technology, 2000, 15, 794-798. | 1.0 | 9 |
| 28 | Optical and electronic characterization of the band structure of blue methylene and rhodamine 6G-doped TiO ₂ sol-gel nanofilms. Microelectronics Journal, 2005, 36, 570-573. | 1.1 | 9 |
| 29 | Potential of High-purity Polycrystalline Silicon Carbide for Thermistor Applications. Japanese Journal of Applied Physics, 1998, 37, 5078-5079. | 0.8 | 8 |
| 30 | Time evolution of SiO ₂ /Si interface defects and dopant passivation in MOS capacitors. Microelectronic Engineering, 2000, 51-52, 567-574. | 1.1 | 8 |
| 31 | Morphology of nanostructured luminescent silicon layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, S287-S290. | 0.8 | 8 |
| 32 | SiC/SiO ₂ interface states observed by x-ray photoelectron spectroscopy measurements under bias. Applied Physics Letters, 2001, 78, 96-98. | 1.5 | 7 |
| 33 | Statistical analysis of topographic images of nanoporous silicon and model surfaces. Microelectronics Journal, 2005, 36, 1011-1015. | 1.1 | 7 |
| 34 | Polyaniline nanofilms as a sensing device for ionizing radiation. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 666-667. | 1.3 | 6 |
| 35 | Metal-insulator-semiconductor capacitors with water-containing hexagonal mesoporous silica (MCM-41) dielectric and high values of capacitance per unit area. Semiconductor Science and Technology, 2015, 30, 045003. | 1.0 | 6 |
| 36 | A percolation based dielectric breakdown model with randomic changes in the dielectric constant. Physica A: Statistical Mechanics and Its Applications, 2002, 305, 351-359. | 1.2 | 5 |

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|----|---|-----|-----------|
| 37 | Reliability physics study for semiconductor-polymer device development. <i>Microelectronics Journal</i> , 2003, 34, 713-715. | 1.1 | 5 |
| 38 | Visible photoluminescence from Ge nanoclusters implanted in nanoporous aluminum oxide films. <i>Microelectronics Journal</i> , 2005, 36, 992-994. | 1.1 | 5 |
| 39 | Dynamic Photocurrent Images of a Gas Sensing Surface. <i>Japanese Journal of Applied Physics</i> , 1999, 38, 2893-2898. | 0.8 | 4 |
| 40 | Dynamics of SiO ₂ /SiO _x /Si multilayer growth and interfacial effects on silicon quantum well confinement properties. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000, 74, 188-192. | 1.7 | 4 |
| 41 | NO Gas Detection at High Temperature Using Thin-Pt 4H-SiC and 6H-SiC Schottky Diodes. <i>Materials Science Forum</i> , 2003, 433-436, 961-964. | 0.3 | 4 |
| 42 | A versatile technique to transfer multi-walled carbon nanotubes membranes to surfaces. <i>Translational Materials Research</i> , 2016, 3, 035001. | 1.2 | 4 |
| 43 | Post-irradiation dopant passivation in MOS capacitors exposed to high doses of x-rays. <i>Semiconductor Science and Technology</i> , 1998, 13, 1313-1316. | 1.0 | 3 |
| 44 | X-Ray Radiation Response of Epitaxial and Nonepitaxial n-6H-SiC Metal-Oxide-Semiconductor Capacitors. <i>Japanese Journal of Applied Physics</i> , 2001, 40, 2987-2990. | 0.8 | 3 |
| 45 | Optical and electrical characterization of the band structure of polyaniline nanofilms and polyaniline/silicon heterojunctions. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 2982-2985. | 0.8 | 3 |
| 46 | High-temperature thin-catalytic gate devices for combustion emissions control. <i>Brazilian Journal of Physics</i> , 2004, 34, 577-580. | 0.7 | 3 |
| 47 | Ionizing radiation and hot carrier effects in SiC MOS devices. <i>Brazilian Journal of Physics</i> , 2002, 32, 389-391. | 0.7 | 2 |
| 48 | The role of multiple damaged layers at the Si/SiO ₂ interface on the dielectric breakdown of MOS capacitors. <i>Applied Surface Science</i> , 2002, 190, 35-38. | 3.1 | 2 |
| 49 | Synthesis and characterization of carbon nanotubes/silica composites using gum arabic. <i>Materials Research Express</i> , 2018, 5, 075028. | 0.8 | 2 |
| 50 | A wrinkled ZnO/MCM-41 nanocomposite: hydrothermal synthesis and characterization. <i>Materials Research Express</i> , 2021, 8, 065011. | 0.8 | 2 |
| 51 | Monte Carlo study of interfacial silicon suboxide layers and oxidation kinetics. <i>Applied Surface Science</i> , 2002, 190, 30-34. | 3.1 | 1 |
| 52 | Thermal Lens Technique for the Determination of SiC Thermo-Optical Properties. <i>Materials Science Forum</i> , 2006, 527-529, 703-706. | 0.3 | 1 |
| 53 | Highly Stable Tea Taste Detection Using SPV Method and Ion Electrodes. <i>IEEJ Transactions on Sensors and Micromachines</i> , 1998, 118, 608-613. | 0.0 | 1 |
| 54 | Silicon-carbide Schottky diodes with sputtered and laser-ablated thin-Pt gate as NO gas sensors in high temperature. , 0, , . | | 0 |

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|----|--|-----|-----------|
| 55 | The Role of Non-abrupt Interfaces in SiC MOS Devices: Quantum Mechanical Simulations and Experiments. AIP Conference Proceedings, 2005, , . | 0.3 | 0 |
| 56 | Vapor-Phase Growth and Characterization of Luminescent Silicon Layers. AIP Conference Proceedings, 2005, , . | 0.3 | 0 |
| 57 | NO₂</sub></sub> Detection with Schottky Diodes and Heterojunction Structures. IEEJ Transactions on Sensors and Micromachines, 1998, 118, 614-620. | 0.0 | 0 |