## Elder Alpes de Vasconcelos

## List of Publications by Year

 in descending orderSource: https:|/exaly.com/author-pdf/6780803/publications.pdf
Version: 2024-02-01

1 A wrinkled $\mathrm{ZnO} / \mathrm{MCM}-41$ nanocomposite: hydrothermal synthesis and characterization. Materials
Research Express, 2021, 8, 065011.

Synthesis and characterization of carbon nanotubes/silica composites using gum arabic. Materials
$0.8 \quad 2$
Research Express, 2018, 5, 075028.

A versatile technique to transfer multi-walled carbon nanotubes membranes to surfaces.
Translational Materials Research, 2016, 3, 035001.
1.2

4

Metal-insulator-semiconductor capacitors with water-containing hexagonal mesoporous silica
5 (MCM-41) dielectric and high values of capacitance per unit area. Semiconductor Science and
$1.0 \quad 6$
Technology, 2015, 30, 045003.

6 Fabrication and electrical characterization of polyaniline/silicon carbide heterojunctions. Journal
Physics D: Applied Physics, 2011, 44, 205101.
1.3

Electrical and microscopic characterization of ZnO films on $\mathrm{p}-\mathrm{SiC}$ substrates. Solid State
$7 \quad$ Electrical and microscopic characterization
$0.9 \quad 12$
$8 \quad$ Tailoring the Electrical Properties of $\mathrm{ZnO} /$ Polyaniline Heterostructures for Device Applications.
Journal of the Korean Physical Society, 2011, 58, 1256-1260.
$0.3 \quad 14$

9 Potential of a simplified measurement scheme and device structure for a low cost label-free
9 point-of-care capacitive biosensor. Biosensors and Bioelectronics, 2009, 25, 870-876.
5.3

62

10 A conducting polymerâ $€^{\prime \prime}$ silicon heterojunction as a new ultraviolet photodetector. Applied Surface
Science, 2008, 255, 688-690.
3.1

15
11 Enhanced lifetime in porous silicon light-emitting diodes with fluorine doped tin oxide electrodes.
Thin Solid Films, 2008, 517, 870-873.
0.8

35

12 A simplified reactive thermal evaporation method for indium tin oxide electrodes. Applied Surface
Science, 2008, 255, 755-757.
3.1

30

Growth of sub-micron fibres of pure polyaniline using the electrospinning technique. Journal Physics
1.3

49
13 D: Applied Physics, 2007, 40, 1068-1071.

Production of Ball-Lightning-Like Luminous Balls by Electrical Discharges in Silicon. Physical Review Letters, 2007, 98, 048501.
2.9

42

Immobilization of urease on vapour phase stain etched porous silicon. Process Biochemistry, 2007, 42,
429-433.
1.8

25

Nanowire growth on Si wafers by oxygen implantation and annealing. Applied Surface Science, 2006,
252, 5572-5574.
3.1

22

An improved description of the dielectric breakdown in oxides based on a generalized Weibull
1.2

29
Statistical analysis of topographic images of nanoporous silicon and model surfaces.
Microelectronics Journal, 2005, 36, 1011-1015.

Thermal-lens and photo-acoustic methods for the determination of SiC thermal properties. Microelectronics Journal, 2005, 36, 977-980.

Optical and electronic characterization of the band structure of blue methylene and rhodamine 6G-doped TiO2 solâ€"gel nanofilms. Microelectronics Journal, 2005, 36, 570-573.

Visible photoluminescence from Ge nanoclusters implanted in nanoporous aluminum oxide films. Microelectronics Journal, 2005, 36, 992-994.

Optical and electrical characterization of the band structure of polyaniline nanofilms and
23 polyaniline/silicon heterojunctions. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2982-2985.

24 A new method for luminescent porous silicon formation: reaction-induced vapor-phase stain etch.
Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 1539-1542.

The Role of Non-abrupt Interfaces in SiC MOS Devices: Quantum Mechanical Simulations and
Experiments. AIP Conference Proceedings, 2005, , .

Vapor-Phase Growth and Characterization of Luminescent Silicon Layers. AlP Conference Proceedings, 2005, , .

Spectroscopic characteristics of doped nanoporous aluminum oxide. Materials Science and
Engineering B: Solid-State Materials for Advanced Technology, 2004, 112, 171-174.

Photoluminescence characteristics of rare earth-doped nanoporous aluminum oxide. Applied Surface
Science, 2004, 234, 457-461.

Morphology of nanostructured luminescent silicon layers. Physica Status Solidi C: Current Topics in
Solid State Physics, 2004, 1, S287-S290.

High-temperature thin-catalytic gate devices for combustion emissions control. Brazilian Journal of Physics, 2004, 34, 577-580.

Polyaniline nanofilms as a monitoring label and dosimetric device for gamma radiation. Materials
Characterization, 2003, 50, 127-130.

AFM studies of polyaniline nanofilms irradiated with gamma rays. Microelectronics Journal, 2003, 34, 511-513.

Reliability physics study for semiconductor-polymer device development. Microelectronics Journal, 2003, 34, 713-715.

Polyaniline nanofilms as a sensing device for ionizing radiation. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 666-667.

Gas response and modeling of NO-sensitive thin-Pt SiC schottky diodes. Sensors and Actuators B:
Chemical, 2003, 92, 181-185.
4.0

NO Gas Detection at High Temperature Using Thin-Pt 4H-SiC and 6H-SiC Schottky Diodes. Materials
Science Forum, 2003, 433-436, 961-964.

Conducting Polymer/Silicon Heterojunction Diode for Gamma Radiation Detection. Radiation
Protection Dosimetry, 2002, 101, 85-88.

Ionizing radiation and hot carrier effects in SiC MOS devices. Brazilian Journal of Physics, 2002, 32, 389-391.

Monte Carlo study of interfacial silicon suboxide layers and oxidation kinetics. Applied Surface Science, 2002, 190, 30-34.

The role of multiple damaged layers at the $\mathrm{Si} / \mathrm{SiO} 2$ interface on the dielectric breakdown of MOS capacitors. Applied Surface Science, 2002, 190, 35-38.
$3.1 \quad 2$

A percolation based dielectric breakdown model with randomic changes in the dielectric constant.
Physica A: Statistical Mechanics and Its Applications, 2002, 305, 351-359.

Fabrication of high quality siliconâ€"polyaniline heterojunctions. Applied Surface Science, 2002, 190,
390-394.

A silicon-polymer heterostructure for sensor applications. Brazilian Journal of Physics, 2002, 32,
421-423.

X-Ray Radiation Response of Epitaxial and Nonepitaxial n-6Hâ€"SiC Metal-Oxide-Semiconductor
Capacitors. Japanese Journal of Applied Physics, 2001, 40, 2987-2990.
$\mathrm{SiC} / \mathrm{SiO} 2$ interface states observed by x-ray photoelectron spectroscopy measurements under bias.
Applied Physics Letters, 2001, 78, 96-98.

Dynamics of $\mathrm{SiO} 2 / \mathrm{SiO}$ /Si multilayer growth and interfacial effects on silicon quantum well
46 confinement properties. Materials Science and Engineering B: Solid-State Materials for Advanced
Technology, 2000, 74, 188-192.
Highly sensitive thermistors based on high-purity polycrystalline cubic silicon carbide. Sensors and
Actuators A: Physical, 2000, 83, 167-171.

A study of silicon Schottky diode structures for NOx gas detection. Sensors and Actuators B:
Chemical, 2000, 65, 154-156.

Time evolution of SiO /Si interface defects and dopant passivation in MOS capacitors.
Microelectronic Engineering, 2000, 51-52, 567-574.

Effect of ageing on x-ray induced dopant passivation in MOS capacitors. Semiconductor Science and Technology, 2000, 15, 794-798.

Dynamic Photocurrent Images of a Gas Sensing Surface. Japanese Journal of Applied Physics, 1999, 38,
2893-2898.

Post-irradiation dopant passivation in MOS capacitors exposed to high doses of x-rays.
Semiconductor Science and Technology, 1998, 13, 1313-1316.

Potential of High-purity Polycrystalline Silicon Carbide for Thermistor Applications. Japanese Journal
of Applied Physics, 1998, 37, 5078-5079.
0.8

NO\&It;sub\>x\</sub\> Detection with Schottky Diodes and Heterojunction Structures. IEEJ
Transactions on Sensors and Micromachines, 1998, 118, 614-620.

