

SAIP2014

Wednesday 09 July 2014

Poster2 - D Ring ground level (17:10-19:00)

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| [34] Determining the Richardson constant of Ni/4H-SiC and W/4H-SiC Schottky diodes via Current-Voltage-Temperature (IVT) characteristics | Ms SINGH, Asmita | A.34 |
| [54] Magnetic and transport studies on Cr _{100-x} Ir _x alloy single crystals | Mr FERNANDO, Pius Rodney | A.54 |
| [74] Probing the antiferromagnetism in (Cr ₈₄ Re ₁₆) _{100-y} V _y alloys using neutron diffraction | Mrs JACOBS, Bincy Susan | A.74 |
| [76] Effect of Mo content on the Structural and Physical Properties of Cr _{100-x} Mo _x Alloys | Dr CHAVAN, A | A.76 |
| [88] Effect of annealing temperature on vanadium dioxide thin films prepared by sol gel method | Mr MADIBA, Itani Given | A.88 |
| [90] Computer simulation study of spinel LiMn ₂ O ₄ nanotubes as a cathode material for lithium-ion batteries | Mr TSHWANE, David Magolego | A.90 |
| [102] Synthesis and characterization of binary phase NiS nanostructures | Ms LINGANISO, Ella | A.102 |
| [106] Computational modelling studies of Pd tellurides | Mr SELOWA, Phatholo Fredy | A.106 |
| [134] Influence of argon-implantation on thermoluminescence of synthetic quartz | Dr NSENGIYUMVA, Schadrack | A.134 |
| [146] High-pressure electrical-transport behaviour in charge-ordered Fe ₂ O ₃ and LuFe ₂ O ₄ | Mr MUSYIMI, Philip | A.146 |
| [180] Atomistic Simulation Studies of LiMn ₂ O ₄ | Ms LEDWABA, Raesibe Sylvia | A.180 |
| [182] Synthesis and characterization of doped perovskite oxides (CaTiO ₃ : Pr, Al) nanophosphors by using sol-gel method. | Mr LOTH, Thandikhaya Lungisa | A.182 |
| [190] Growth of FeSi nanowires by Chemical Vapour Deposition for Gas Sensing Applications | Dr THABETHE, Sibongiseni | A.190 |
| [204] Electronic structures of oxygen adsorption on {110} nickel-rich pentlandite (Fe ₄ Ni ₅ S ₈) mineral surface | Mr MKHONTO, Peace Prince | A.204 |
| [212] Palladium silicide formation on n-Si (111) By Thermal Annealing | Ms DANGA, Helga | A.212 |
| [216] Charge and magnetic ordering dynamics under pressure in LuFe ₂ O ₄ | Mr SIBANDA, Wisdom Nkosilathi | A.216 |
| [248] Pressure effects on the magnetic behavior of the local moment ferromagnet CeCuSi | Prof. HEARNE, GIOvanni | A.248 |
| [250] Sputter deposition and characterization of diamond like carbon thin films | Ms CHONCO, Nelisiwe Princess | A.250 |
| [262] X-ray reflectometry and Surface Brillouin scattering studies of thin films of VC deposited on Si by RF magnetron sputtering | Mr JAKATA, Kudakwashe | A.262 |

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| [272] Investigation of the migration behaviour of Strontium ion implanted in Silicon Carbide | Ms THABETHE, Thabsile | A.272 |
| [274] Characterization of Temperature Dependence of the Electron Capture Cross Section of E-Center in Sb-Doped Germanium | Mr OMOTOSO, Ezekiel | A.274 |
| [282] Reactive DC sputter deposition and charactersation of AlN thin films | Mr NYAWO, Thembinkosi Goodman | A.282 |
| [286] Investigation of the effect of iodine bombardment in glassy carbon. | Ms ODUTEMOWO, Opeyemi | A.286 |
| [294] Effects of Catalyst/Ba mole fraction on the structure and luminescence properties of BaCO ₃ :1% Eu ³⁺ ,2% Dy ³⁺ phosphors synthesized using sol-gel process. | Ms TEBELE, Angelina Seithati | A.294 |
| [308] Synthesis, characterization and magnetic ordering of the semiconducting intermetallic compound FeGa ₃ | Mr AHMED, Mustafa | A.308 |
| [322] Effect of annealing temperature on structural and luminescence properties of Eu ³⁺ -doped Y ₂ O ₃ red-emitting phosphor thin films by Pulse Laser Deposition method. | Mr ALI, Abdub | A.322 |
| [336] Irradiation-induced improvement in crystalline quality of epitaxially grown InGaN thin films: A preliminary study | Dr MADHUKU, Morgan | A.336 |
| [368] Effect of pH on ZnO nanostructures prepared by chemical bath method | Mr KOAO, Lehlohonolo | A.368 |
| [380] Computational Modelling Studies of PtS surfaces | Ms MASENYA, Mamogo | A.380 |
| [382] Silicide formation in Pd-Si and Pd-SiC diffusion couples | Mr NJOROGÉ, Eric | A.382 |
| [384] Coupling coefficients and excitonic transitions in CuGaSe ₂ | Dr MACHATINE, Augusto | A.384 |
| [386] Characterization of cerium doped yttrium gadolinium aluminate garnet (Y-Gd) ₃ Al ₅ O ₁₂ :Ce ³⁺ phosphor thin films fabricated by pulsed laser deposition | Mr WAKO, Ali | A.386 |
| [394] Temperature dependence of coercivity and magnetization of Sr _{1/3} Mn _{1/3} Co _{1/3} Fe ₂ O ₄ nanoparticle ferrites | Mr OSMAN, Nadir | A.394 |
| [406] Temperature-dependent barrier characteristics of Pd/ZnO Schottky barrier diodes | Mr MAYIMELE, Meehleketo Advice | A.406 |
| [410] Magnetic and thermodynamic properties of Ce ₂₃ Ru ₇ Mg ₄ compound | Dr DEBNATH, Jyotish Chandra | A.410 |
| [428] Influence of solvent casting and weight ratios on the morphology and optical properties of inorganic-organic hybrid structures | Dr MULLER, Theo | A.428 |
| [446] Computational study of (110) β-TiO ₂ surface | Ms MAENETJA, Khomotso | A.446 |
| [448] The behaviour of damage in sapphire and MgO implanted with silver ions | KOZAKIEWICZ, Anna | A.448 |
| [112] Affordable and power efficient computing for High Energy Physics: synthetic CPU performance and Fast Fourier Transform benchmarks of ARM processors. | Mr COX, Mitchell | B.112 |
| [116] Memory performance of ARM processors and its relevance to High Energy Physics | Mr HARMSEN, Gerhard Mr WRIGLEY, Thomas | B.116 |
| [124] Electron paramagnetic resonance analysis of plastic scintillators for the Tile Calorimeter of the ATLAS detector | Mr PELWAN, Chad | B.124 |
| [128] The modification and the development of the polarized ion source at iThemba LABS | Mr NDLANGAMANDLA, Cebo | B.128 |
| [164] Prometeo: The new test bench for the electronics in ATLAS tile calorimeter in the upgrade. | Dr RUAN, Xifeng | B.164 |
| [222] Transverse Momentum and Tsallis Distribution]{Transverse Momentum Distributions in proton - proton Collisions at LHC Energies and Tsallis Thermodynamics | Prof. CLEYMANS, Jean | B.222 |

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| [240] New research opportunities with the K600 magnetic spectrometer | Dr NEVELING, Retief | B.240 |
| [242] Cross-section measurements for neutron-induced reactions in Co and Au at neutron energy of 60 MeV | Dr MALEKA, Peane Peter | B.242 |
| [260] Data Processing System for the Time-of-Flight Spectrometer of Heavy Ions in the wide range of Energies. | Mr MALAZA, Vusi | B.260 |
| [298] Nature of the four-quasiparticle negative-parity rotational bands in ¹⁹⁴ Tl | Dr SHIRINDA, OBED | B.298 |
| [10] Reconstructing vector Bessel beams | Dr DUDLEY, Angela | C.10 |
| [120] Automation, characterisation and application of a spectrometer for UV and Vacuum UV | Mr DE BRUYN, Andre | C.120 |
| [144] Self-healing of quantum entanglement | Ms MCLAREN, Melanie | C.144 |
| [270] Thermally induced lensing determination from the coefficient of defocus aberration | Mr BELL, July | C.270 |
| [306] Investigation and evaluation of a custom Raman spectroscopy setup | Ms PFUKWA, Cathrine | C.306 |
| [352] Pulse shaping using a 2D spatial light modulator | Mr VILJOEN, Ruan | C.352 |
| [414] Digital Laser for On-Demand Mode Pulses | Mr NGCOBO, Sandile | C.414 |
| [4] Calculating solar irradiance to determine yield from solar cells for De Aar | Mr WEBBER, Graham | F.4 |
| [28] Reproducing observed solar radiation characteristics in Rwanda using theoretical models | Ms CYULINYANA, Marie Chantal | F.28 |
| [38] Wave Instability of Intercellular Ca(2+) Oscillations | Dr TABI, Conrad Bertrand | F.38 |
| [52] An efficient and reliable model develop and employ in a simulation application to compute the coefficient of performance of an air source heat pump water heater | Mr TANGWE, Stephen | F.52 |
| [86] A PEPT study of the quadratic en masse granular flows in rotating drums | Mr BALOYI, Bongani | F.86 |
| [100] Production of electricity from eucalyptus wood | Ms NWOKOLO, Nwabunwanne | F.100 |
| [156] Structural changes associated with the differential expansion of coal during rapid heating - a preliminary study | Mr HOFFMAN, Jakobus | F.156 |
| [158] A quantum circuit modeling toolkit for high performance computing | Mr SENEKANE, Makhamsia | F.158 |
| [176] Geyser heating cycle of 2kW tank domestic solar water heater under varying loads | Ms NDLOVU, Nothando | F.176 |
| [200] Imaging of Dense Minerals in Rocks Using Micro-CT | Mr BAM, Lunga | F.200 |
| [208] Interpretation of Spectral Electroluminescence Images of Photovoltaic Modules | Ms CROZIER, Jacqui | F.208 |
| [226] Chemiresistive Gas Sensing Properties of Vanadium Pentoxide nanoparticles | Mr AKANDE, Amos | F.226 |
| [284] Comparison of the gasifier char-resin blends with gasifier soot-resin blends using different characterization techniques | Mr MELAPI, Aviwe | F.284 |
| [312] Analysis of photo-response of a back contact silicon solar cell under spot illumination | Mr KWARIKUNDA, Nicholas | F.312 |
| [436] Absorption degradation of Poly crystalline silicon solar cell due to hot spot formation | Mr OSAYEMWENRE, Gilbert | F.436 |
| [68] First principle study: adsorption of molecular hydrogen sulphide on transitional gold cluster (Aun=1-5) | Mr IGUMBOR, Emmanuel | G.68 |
| [92] Equilibration properties of hadronic matter | Mr THENDO EMMANUEL, Nemakhavhani | G.92 |

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| [118] Advanced CPU benchmarking of ARM processors for applications in High Energy Physics | Mr PIMENTA, Wade | G.118 |
| [244] Chaotic Phenomena in Stack of Josephson Junctions | Ms MEDVEDEVA, Svetlana | G.244 |
| [246] Correlation between entangled states as measured from accelerated world lines. | Mr HARTMAN, Jonathan | G.246 |
| [291] The Stochastic Schroedinger Equations Approach to Open Quantum Systems | Mrs SEMINA, Iuliia | G.291 |
| [318] Norm conserving pseudopotentials for 1-D systems | Dr SALAGARAM, Trisha | G.318 |
| [412] First-principles study of Fe-doped MgO | Dr MOLEPO, Mahlaga | G.412 |
| [438] A circular current's bi-Cartesian magnetic dipolar model and the bias in deriving fields from own potentials | Dr CHIRWA, Max | G.438 |