

SAIP2012

Tuesday 10 July 2012

Poster Session (17:30-19:30)

[id]	title	presenter	board
[345]	Monte Carlo simulation of an in-situ gamma-ray detector system used in conjunction with a planned calibration facility	Mr SEHONE, Alfred Mogotsi	
[294]	Characterisation of polycrystalline diamond samples from different origins	Ms MOIPOLAI, Tshegofatso	
[292]	Deposition, Structural, Optical and Electrical Characterization of Silicon Carbide Thin Films for Solar Cell Applications	Mr KHOELE, Joshua	
[197]	Phonon confinement analysis of carbon doped titanium dioxide quantum dots	Mr RAYMOND, Taziwa	
[193]	Synthesis and characterization of green $\text{SrAl}_2\text{O}_4:\text{Tb}^{3+}$ phosphor using solution combustion method	Ms FOKA, Kewele Emily	
[274]	Are the Dynamics of Fluid Injection a Mechanism of Improving the Acoustic Characteristics of Performance Exhaust Mufflers?	Mr MATHEBULA, Ipeleng	
[278]	An all-optical system designed for the heating and temperature measurement of the diamond tool	Ms MASINA, Bathusile	
[448]	Low temperature deposition of silicon nitride thin films by hot-wire CVD	Mr ADAMS, Abdulghaaliq	
[100]	Ion-Bernstein waves in a plasma with a kappa velocity distribution	Mr NSENGIYUMVA, Francois	
[105]	Synthesis and characterization of MnS nanoparticles using the chemical bath deposition method	Mr KOAO, Lehlohonolo	
[39]	Light Ion Spectrometer for the study of multi-body decays of heavy nuclei.	Mr MALAZA, Vusi	
[30]	Low Temperature Transport of HTR Nuclear fuel Composite Graphite	Ms MUROVHI, phathutshedzo	
[37]	A study of the relationship between the concentrations of naturally occurring radionuclides in various locations in the Western Cape	Dr BEZUIDENHOUT, Jacques	
[34]	A new method for obtaining the mole fraction in $\text{Al}_x\text{Ga}_{1-x}\text{N}$ epilayers	Ms DEYZEL, Genevève	
[339]	Photo-induced isomerisation reactions in mercury dithizonates	Mr OLAOYE, OLUFEMI OPEYEMI	
[93]	Effect of concentration on the optical and solid state properties of ZnO thin films deposited by Aqueous Chemical Growth (ACG) method	Mr MAMMAH, Sylvester	
[239]	Study of Current-Voltage-Temperature (I-V-T) Characteristics of Palladium Schottky contacts on n-Ge (100)	Prof. CHAWANDA, Albert	
[235]	Investigations on the Characterization of Ion implanted boron Nitride	Ms ARADI, Emily	
[230]	Structural, Electrical and Electronic Properties of carbon and carbon-based materials	Mr MBIOMBI, Wilfred	
[231]	Feasibility study of DFTB+ parameterization Li, Ti and O systems	Mr GANDAMIPFA, Mulatedzi	

[233] MOCVD grown ZnO on R-sapphire: effect of high growth temperature and high VI/II ratio on the morphology and optical properties	Dr TALLA, Kharouna	
[147] Characterization of spectral broadening of femtosecond pulses in microstructured fiber	Mr NDEBEKA, Wilfrid	
[143] Influence of working atmosphere on $\text{Y}_{0.3}(\text{Al,Ga})_{0.5}\text{O}_{12}:\text{Tb}$ thin films grown by PLD technique	Mr MOHMMED, Abdelrhman	
[135] Heat treatment of glassy carbon implanted with cesium at room and high temperatures	Mr LANGA, Dolly	
[138] Magnetic substitution in CePt_2Si_2 and CeCu_5In Kondo lattice compounds	Mr MAHLUBI, Zwelithini	
[492] Computational study of O vacancy and Ti doped tin-dioxide(SnO_2)	Mr NTIMANE, NDUMA	
[493] Microstructural and electrical evaluation of ZnO solgel films	Mr STEYN, Ruhann	
[27] Using WWLLN to track tropical cyclone Irena	Mr DELPORT, Brett	
[21] TGFS: Power of source lightning strokes	Mr OGUNJOBI, Olakunle	
[401] High Efficient TEMp0 End Pumped Nd:YAG Lasers	Mr NGCOBO, Sandile	
[374] Numerical calculations of received dose due to various geometries of radioactive material	Mr COOK, Martin	
[88] Graphene based nano-coatings for space application	Mr NANGAMSO, Nyangiwe	
[395] Printed Transistors Based on Nanoparticulate Silicon	Mr WALTON, Stanley	
[7] Core flow inversions from the Earth's magnetic field	Dr DE VILLIERS, Jean	
[246] Optimized discharge excitation techniques for short pulse gas lasers: TEA CO_2 laser	Mr KYEYUNE, Farooq	
[241] Synthesis of a three dimensional graphene network for ultracapacitor application	Mr BELLO, Abdulhakeem	
[519] Sorting Orbital Angular Momentum states of light	Ms MHLANGA, Thandeka	
[459] Characterization of the electrical properties of the Platinum-Palladium-Hydrogen system	Ms VAN DEN BERG, Claire	
[455] Evaluation of the Potential of Parametric Neutron Activation Analysis in the RINGAS Irradiation Positions of the SAFARI-1 Research Reactor	Mr VILAKAZI, Happy	
[178] Synthesis and characterization of sputter deposited TiN thin films	Ms NYALUNGA, Gezekile	
[177] Luminescence studies of a solution-combustion synthesized of blue-green $\text{BaAl}_x\text{O}_y:\text{Eu}^{2+}, \text{Dy}^{3+}$ nanophosphors	Prof. DEJENE, Francis	
[176] Structural, morphological and luminescence properties of hexagonal ZnO particles by wet chemical process	Prof. DEJENE, Francis	
[172] The formation of ordered phases in Pt-Mo coated systems	Mr KHUMALO, Zakhelumuzi	
[189] Sol-gel synthesis and Characterization of Structural and Luminescence Properties of ZnAl_2O_4 singly doped with Mn^{2+} , Cr^{2+} , or Pb^{2+} powder phosphors	Mr MOTLOUNG, Setumo Victor	
[13] Extracting growth rates from a Particle-In-Cell simulation	Mr KOEN, Etienne	
[15] Digital Arduino Driven Spectrometer using Scientific MATLAB Orientated Interface and Protocol	Mr JACQUES, Jacques	

[16] Listen to Our Universe	Mr JACQUES, Jacques	
[18] Synthesis and Characterization of $\text{BaB}_8\text{BO}_{13}$: Eu nanophosphors Prepared Using Solution- Combustion Method	Mr SITHOLE, THOKOZANE MOSES	
[322] Transport properties of LiPF_6 in PEO-PDMS polymer matrix	Mr KUBAI, Thomas	
[327] Confined single- and multiple-jet impingement heat transfer in helium-cooled beam window assemblies at a cyclotron facility	Dr STEYN, G. F.	
[202] Synthesis and characterisation of sputter deposited AlN thin films	Mr HLATSHWAYO, Simphiwe	
[209] Synthesis and characterization of a narrowband $\text{Ca}_5(\text{PO}_4)_3(\text{OH})\text{:Gd}^{3+}$, Pr^{3+} phosphor for medical applications	Ms MOKOENA, PUSELETSO	
[76] Modification of glassy carbon under strontium ion implantation	Ms ODUTEMOWO, opeyemi	
[73] Room Temperature FePt Nanoparticles Formation Kinetics during Laser Solution Photolysis	Mr NKOSI, Steven	
[122] Theoretical calculation of positron states and annihilation rates in BaF_2	Mr JILI, Thulani	
[123] Morphological, structural and photoluminescence properties of sol-gel synthesized strontium titanate ($\text{SrTiO}_3\text{:Pr:Al}$) nanophosphors	Mr LOTH, Thandikhaya Lungisa	
[129] Defect identification in FeTiO_3 using positron annihilation technique	Mr JILI, Thulani	
[311] Defect complexes on SiC surfaces	Ms KHOZA, Eva	
[315] Computational studies of palladium/platinum sulfide using solid-solution approach	Ms MASENYA, Mamogo	
[139] Diblock copolymers as templates for semiconductor nanostructure fabrication	Mr DOBSON, Stephen	
[366] An Accurate Determination of Pressure Profiles in Microfluidic Crevices and Networks	Mr RAMNATH, Vishal	
[383] TIGRESS segmented gamma-ray detector studies	Mr NONCOLELA, Sive	
[389] Computer simulation studies of spinel LiMn_2O_4 and $\text{LiNi}_x\text{Mn}_{2-x}\text{O}_4$ ($0 \leq x \leq 2$)	Mr MALATJI, kemeridge Tumelo	
[67] Photon dose distributions between 3D-water phantom and Profiler2 scanning system	Dr SITHOLE, Enoch	
[255] Construction of a centralised microprocessor based smart metering system with optimised scheduling of energy usage	Ms MWEWA, MELODY	
[508] A Study of the Interaction of Charge Carriers and Defects in Diamond	Mr TSHISEKEDI, MUPEMBE	
[501] Comparison of screened hybrid functionals to GGA functionals for predicting the properties of intrinsic radiation induced defects in Si	Mr WEBB, Geoffrey	
[462] Thermally activated charge transport in printed silicon networks	Mr MAGUNJE, BATSIRAI	
[168] Annealing effects on Pt coating morphology	Ms THABEZHE, Nokwethemba	
[167] Thickness and Solvent influence on the photo-active layer in Organic photovoltaic devices	Ms MBULE, Pontsho Sylvia	
[163] Influence of temperature and precursor concentration on synthesis of HDA-capped Ag_2Se nanoparticles	Mr MLAMBO, Mbuso	

[211] Effects of synthesised temperature and solvents on the ZnO properties	Ms TSHABALALA, Modiehi Amelia	
[219] Fine Structure of the Isovector Giant Dipole Resonance using the (p,p') reaction at zero degrees: Effects of strong nuclear deformation	Ms DONALDSON, Lindsay	
[281] Upper bound to accessible information for the six-state quantum key distribution protocol	Mr MAFU, Mhlambululi	
[282] Characterization and XPS information of commercially $\text{Y}_{2}\text{O}_{3}:\text{Eu}^{3+}$ powder phosphor	Dr DOLO, JAPPIE	
[58] Seyfert 2 galaxies with unusually wide nebular lines	Prof. WINKLER, Hartmut Mr CHAUKE, Trevor	
[54] An experimental and modeling study of the thermoluminescence of natural quartz	Mr LONTSI SOB, Aaron Joel	
[56] Nuclear Incompressibility and Nuclear Symmetry Energy Calculated Using M3Y-type Interaction Derived from Variational Calculation.	Mr GBAORUN, Frederick	
[52] Lower and upper thermospheric wind variations during magnetically quiet days	Dr MCCREADIE, Heather Dr SIVLA, William Tafon	
[253] A Comparative Study of Zn-doped $\text{Al}_{2}\text{O}_{3}$ versus Al-doped ZnO Thin Films on Glass for Optimizing Transparent Conducting Properties	Ms NJINGANA, Primrose Nosiselo	
[424] Nonlocality arguments in the temporal Clauser–Horne–Shimony–Holt scenario	Dr CHOUDHARY, Sujit Kumar	
[302] Topology of the landscape of optimally controlled transitions in a multilevel system	Ms MADIGOE, Ramathabathe	
[305] Computer Simulation Study of Synthetic Nickel-Rich Pentlandite ($\text{Fe}_{4}\text{Ni}_{5}\text{S}_{8}$) Surfaces	Mr MKHONTO, Peace Prince	
[227] VCSEL Technology for Square Kilometre Array (SKA) Optical Fibre Network	Mr ROTICH, Enoch	
[226] Rarefied Gas Ejection as a Thrust Mechanism for Miniature Electric Space Propulsion Systems	Mr KROMMENHOEK, Marinus	
[221] Synthesis and Magnetic properties of $\text{Mg}_{0.2}\text{Cr}_{1.8-x}\text{Fe}_{x}\text{O}_{3}$ oxides	Mr MBELA, Kalengay	
[155] Baryon - Omega Meson Electroproduction	Mr UNWUCHOLA, Doonnull Attah	

Thursday 12 July 2012

Poster Session (17:30-19:30)

[id]	title	presenter	board
[340]	Optical properties of Mo-SiC thin film composites	Prof. NEMRAOUI, Ouassini	
[342]	Performance monitoring of a Passive Flat Plate Solar Water Heating system	Ms NOTHANDO, Ndlovu	
[349]	Synthesis and Characterisation of Ag/Cu co-doped nano TiO ₂	Prof. RAMMUTLA, Erasmus Koena Mr NUBI, Olatunbosun Dr MOSUANG, Thuto	
[299]	First-Principles Calculations of the Structural, Electronic and Optical Properties of PdN and PdN ₂	Mr SULEIMAN, MOHAMMED	
[290]	Detection at Necsa's Accelerator facility.	Mr DANIELS, Graham	
[191]	Plasma Characterisation of an Electron Cyclotron Resonance	Mr SAKILDIEN, Muneer	
[273]	A review of the mobile LIDAR system developed at the CSIR and a proposed improvement of the system	Mr SHIKWAMBANA, Lerato	
[520]	Using streaked electron diffraction as an alternative to conventional femtosecond pump-probe electron diffraction	Ms VON FLOTOW, Andrea	
[522]	Radiation damage of sapphire induced by ion implantation studied in nuclear and electronic energy loss regime.	KOZAKIEWICZ, Anna	
[442]	Green density effects on the structural and magnetic properties of (Cd, Zn) _{0.5} Ni _{0.5} Fe ₂ O ₄	Dr MOYO, Thomas	
[444]	Polarized Dust Emission of the Nearby Starburst Galaxies M82 and NGC253	Dr LEEUW, Lerothodi	
[108]	Development of a novel low power microwave proton ion source for Van de Graaff accelerator	Mr NDLANGAMANDLA, Cebo	
[104]	Radiometric modelling of a satellite remote sensing system used for image generation	Ms VAN DER WESTHUIZEN, Lynette	
[31]	Computational simulations of graphene and carbon nanotubes	Ms SHAI, MOSHIBUDI	
[36]	Search for Collinear Multi Body Decays of Low Excited Nuclear Systems“An Overview”	Dr JACOBS, Noel Mkhululi	
[431]	Variability of total electron content (TEC) over the crest of equatorial anomaly station UNZA - First results	Dr SIBANDA, Patrick	
[337]	Measuring current – voltage characteristics of photovoltaic cells and module at various wavelengths	Ms NWOKOLO, Nwabunwanne	
[336]	Rare earth substitutions in Mg _{0.5} Co _{0.5} Fe ₂ O ₄ nano-ferrites synthesized by Glycol-thermal method	Mr MKWAE, Prince	
[99]	Nonlinear Optical Properties of Natural Dyes	MALIK, Maaza ZONGO, Sidiki	
[91]	Characterization and computer simulation of various biomass / coal blends for co-gasification for electricity generation	Mr MABIZELA, Polycarp	
[95]	Synergistic evaluation of the biomass/coal blends for co-gasification purposes	Ms GAQA, Sibongiseni	

[236] Effect of temperature on spectral response measurements of crystalline silicon photovoltaic cells	Mr MALAPE, Maibi	
[133] A Voltage Source Simulation Model of a Solar Cell	Dr KIBIRIGE, Betty	
[495] The temperature dependence of the structure and magnetic properties of Mg-Mn-Co nanoferrites	Mr MASINA, Patrick	
[407] Half-metallic ferromagnetic ordering in Fe-doped diamond	Mr BENECHA, Evans	
[379] Scattering tensors in Si and Ge	Dr MACHATINE, Augusto Mr NIYONGABO, PRIME	
[370] Effects of the wetting process in wool and mohair fibres studied by small-angle neutron scattering (SANS)	Mr TJEBANE, Tjati	
[393] Clebsch-Gordan coefficients for Scattering Tensors in Bi_2Se_3	Dr MACHATINE, Augusto Mr NIYONGABO, Prime	
[392] ^{222}Rn activity measurements in water samples in the Montagu area, Western Cape, South Africa using the RAD 7 alpha spectrometer detector	Mr RYNO, Ryno	
[396] Raman Scattering Tensors in tetragonal WO_3	Mr GOVENDER, Malcolm	
[394] Calculations of structural and electronic properties of manganese dioxide	Dr MAPHANGA, Rapela	
[244] What is the geomagnetic PC index?	Dr MCCREADIE, Heather	
[518] Laser mode control using an intracavity spatial light modulator	Ms BURGER, Liesl	
[515] Characterisation of grid tied micro-inverters using a solar array simulator	Mr MAC LEOD, Brendon	
[516] Investigating Dunedin Whistlers using Volcanic Lightning	Ms ANTEL, Claire	
[458] The effects of annealing on the quality of Pt Si Schottky contacts and the defects introduced in Si during electron beam deposition	Ms DANGA, Helga	
[452] Thermoluminescent properties of $\text{CaAl}_2\text{O}_4\text{:Eu}^{3+}$, $(\text{Dy}^{3+}, \text{Sm}^{3+})$ phosphors prepared by solid state reaction	Mr MMAKGABO COLEN, Manaka	
[454] Temperature dependence of current-voltage characteristics of p-silicon Schottky diodes for radiation-hard detectors	Dr MOLOI, Sabata	
[457] First-principles studies of extrinsic and intrinsic defects in boron nitride nanotubes	Mr MASHAPA, Matete	
[321] Energy transfer from Ce^{3+} to Tb^{3+} in low quartz and amorphous SiO_2 hosts	Mr TSHABALALA, Kamohelo George	
[324] The structural and elastic properties of $\text{Ti}_{50}\text{Pt}_{50-x}\text{Co}_x$ ternaries using solid solution method employed in CASTEP	Ms MAHLANGU, Rosinah	
[325] Digital HF Radar for Antarctic Space Science Research	Dr GOVENDER, Kessie	
[329] A saturation boiling model for an elongated boiling water target operating at a high pressure	Dr STEYN, G. F.	
[207] The Bound ground states of the Hypernucei with single Lambda particle	Mr GOPANE, Ishmael Mmusi	
[208] Automating self-calibration - a software solution	Mrs ODENDAAL, Alida	
[414] Optical Properties of SiN:H thin films obtained by hydrogen dilution	Mr JACOBS, Sulaiman	
[415] Comparison of the effects of annealing on Ni/Au and Ni/Ir/Au Schottky photodiodes	Mr NGOEPE, Phuti	
[417] DLTS and I-V-T characteristics of e-beam deposited Pd/W 4H-SiC Schottky contacts	Mr PARADZAH, Alexander	

[498] Computing in large high energy physics collaborations	Dr YACOOB, Sahal	
[319] Ab-initio study of structural stability of monoclinic, tetragonal and cubic $\text{ZrO}_{2-x}\text{S}_x$ for $0 \leq x < 2$	Mr MULAUDZI, Masilu Godfrey	
[497] Room Temperature (RT), 429 °C and 600 °C Ion implantation of Cadmium (Cd) in Glassy Carbon: Diffusion behavior and RAMAN Analysis	Mr SEBITLA, LESOLLE	
[364] Pressurized Water Reactor MOX/UO ₂ Core Transient Benchmark Steady State Calculations with OSCAR-4	Mr NTULI, Mduduzi	
[363] Electrical Properties of $\text{Mn}_{0.5}\text{Co}_{0.5}\text{Fe}_2\text{O}_4$ Nanosized Synthesized Via High-Energy Milling technique	Mr ABDALLAH, HAFIZ M. I.	
[361] Magnetic phase diagram of CrIr	Mr FERNANDO, Pius Rodney	
[387] Enhanced luminescence from Tb for the mixed spinel $\text{Mg}_x\text{Zn}_{1-x}\text{Al}_2\text{O}_4$	Mr TABAZA, Wael	
[66] Quantum Monte Carlo (QMC) study of Pressure-induced B3-B1 phase transition in GaAs	Mr OUMA, Cecil	
[256] Raman signatures of the modern pigment (Zn,Cd)S _{1-x} Se _x and glass matrix of a red bead from Magoro Hill archeological site, as a method to recalibrate the historical settlement chronology	Mr WEBB, Geoffrey	
[509] Ab-initio Study of Elastic Properties of Ru-Cr and Pt-Cr Alloys	Dr TIBANE, Malebo	
[504] Standard Model Higgs → WW with hadronic tau decays in ATLAS	Mrs LEE, Claire Prof. ASSAMAGAN, Ketevi Prof. CONNELL, Simon	
[502] Comparison of electrical properties of Schottky contacts on Si, Ge, SiC and AlGaIn using sputtering, electron-beam and resistive evaporation	Mr MPHUTHI, Tiisetso	
[467] The exposure levels of the saldanha population due to the high levels of natural occurring radiation	Mr GEYSER, Alwyn Dr BEZUIDENHOUT, Jacques	
[461] Characterization of the by-products of the biomass gasification process	Ms MABUDA, Irene	
[460] Structural and luminescence properties of yellow Y ₃ Al ₅ O ₁₂ :Ce ³⁺ thin film phosphors prepared by Pulsed Laser Deposition	Dr RORO, kittessa	
[463] Evaluation of a space-grade fluxgate magnetometer for a CubeSat	Ms SIZIBA, Electdom	
[166] Infrared thermography of operational photovoltaic modules	Mr NDLOVU, FILIPU YELTON	
[356] Statistical &gamma decay studies at iThemba LABS	Dr NEGI, D	
[285] Simulating indirect IR femtosecond pulse shaping	Ms BOTHA, Nicolene	
[57] Nuclear energy spectra calculated from derived single particle energies	Mr GBAORUN, Frederick	
[258] A new white light emitting phosphor	Mr SHAAT, Samy	
[117] Gasification characteristics of sugarcane bagasse	Mr ANUKAM, Anthony	
[421] Development of refractive delay stages for application in two-dimensional electronic spectroscopy	Mr VAN DER WESTHUIZEN, David	
[425] On the interface properties of an oxidised Au/Ni/AlGaIn MIS structure	Mr LEGODI, Matshisa	
[307] Modification of Surface Optical and Electrical properties of bulk GaSb (100) resulting from a Sulphur- based chemical treatment	Mr MURAPE, Davison Munyaradzi	
[114] Investigations of the Diffusion of Xenon Implanted in 6H-SiC	Ms THABETHE, Thabsile	

[158] Fingerprints of chiral bands associated with multi-quasiparticle configuration	Dr SHIRINDA, OBED	
[399] Structural properties of some defects in tin-dioxide (SnO₂)	Mr NTIMANE, James	
[488] AFM and SEM studies on iodine implanted 6H-SiC	Mr KUHUDZAI, Remeredzai Joseph	
[487] Diffusion studies of Xenon and Krypton implanted in CVD-SiC	Dr HLATSHWAYO, Thulani	
[486] Design of a light beam induced current measurement system for the characterisation of defects in crystalline silicon solar cells.	Prof. VAN DYK, Ernest Dr VORSTER, Frederik Mr BEZUIDENHOUT, Lucian	
[485] Solid state reaction between zirconium and silicon carbide at elevated temperatures	Mr NJOROGI, eric	
[477] Heat treatment of 6H-Silicon Carbide implanted with palladium at room temperature	Ms KABINI, Jeaneth Thokozile	
[479] Simulation of a pencil proton beam through a phantom of water.	Ms JACOBS, Carmen	