

63rd ANNUAL CONFERENCE OF THE SA INSTITUTE OF PHYSICS

Thursday 28 June 2018

Poster Session 2 (15:00-17:00)

[id] title	presenter	board
[345] Maximizing the Channel Capacity of a Space Division Multiplexing System.	Mr MAQONDO, Luthando	
[298] Growth of zinc oxide nanostructures using block copolymer templates	Mr TALLA, Assane	
[295] Characterisation of the solar resource at the Fort Hare Institute of Technology	Ms BUMA, Carine	
[292] Elastic constants of as-deposited amorphous SiC thin films by Brillouin Spectroscopy	DUBE, Hlosani	
[293] Characterization of stirred calibration bath from -80 to 550 °C	Mr MADIBA, Tshifhiwa	
[290] Temperature dependance of Pt, Pd, Ru and Ag on FeAl systems	Prof. CHAUKE, Hasani	
[196] Current Status of the Technology of Light Emitting Diodes from Silicon Carbide: A Review.	Dr MUNTALI, Kinnock Vundawaka	
[192] Characterization of aluminium Schottky junction diode fabricated on nickel oxide thin film synthesized through sol-gel method	Mr AKINKUADE, Shadrach	
[108] Defects in diamond created by NO ⁺ ion implantation	Mr MATINDI, Tresor	
[104] Data extraction techniques for terahertz time-domain ellipsometry	Mr SMITH, Shane	
[233] Hardware optimization and open-source for learning and research	Mr HLONGWANE, SENZO	
[335] INVESTIGATING SODIUM ALUMINIUM SILICATE CRYSTALS FOR LASER COOLING APPLICATION	Mr KITEME, KYALO Ngesu	
[92] Computational Modelling of FeS ₂ Nanoparticles	Dr LETSOALO, Thabo	
[96] The effect of temperature on electrical characteristics of Al/n-GaSb Schottky barrier diodes.	Dr SITHOLE, Mpho	
[238] Elemental analysis and Activation in Kimberlite using delayed gammas after GDR photon induced activation.	Mr NEMAKHAVHANI, Thendo Emmanuel	
[137] The relativistic length transformation: more than a Lorentz contraction	Prof. KROON, R. E.	
[135] Measurements of phase distortions through pulse characterization	Mr DWAPANYIN, George Okyere	
[134] Elastic and Thermal Properties of Ge ₂ Sb ₂ Te ₅ by Surface Brillouin Scattering	Ms BALOI, Mmapula	
[370] Magnetic properties and magnetocaloric effect in NdPd ₂ Al ₂	Mr MASEVHE, Mbulunge	
[26] Synthesis and thermoluminescence kinetic parameters of UV irradiated BaAl ₂ O ₄ :Nd nanocrystals	Mrs JANARDHANA, Divya	
[20] Structural, optical and photoluminescence investigations of Eu doped ZnO spin coating films	Mr HASABELDAIM, Emad	
[22] Electrically active induced energy levels and metastability of B and N vacancy-complexes in 4H-SiC	Dr IGUMBOR, Emmanuel	

[28] A Mechanism for (ϵ , δ)-differential privacy using Student's t distribution	Dr SENEKANE, Makhamisa	
[406] Simulation and analysis of spectral domain optical coherence tomography.	Mr COENRAAD, Wendall	
[241] Visualization and machine learning application for the sorting of diamondiferous rock from mined kimberlite	Mr NEMAKHAVHANI, Thendo Emmanuel	
[174] Collinear ptychographic pulse reconstruction of ultrashort laser pulses	Mr VILJOEN, Ruan	
[187] Photoblinking and photobleaching of single Rhodamine 6G molecules.	Ms SIBANDA, Charmaine	
[326] Initial results and performance evaluation of a high speed OCT system developed at the CSIR National Laser Centre	Mr SHARMA, Ameeth	
[202] Spectroscopy of trivalent neodymium ions (Nd ³⁺) in zinc oxide (ZnO) powders and thin films.	Ms GATSI, Nyepudzai Charline	
[208] First principles studies of Palladium nanoparticles on TiO ₂ surfaces.	Ms MAZIBUKO, Andile	
[120] Structural studies of YOF synthesized by hydrothermal and pyrolysis of trifluoroacetate precursor methods	Mr SAEED, Nadir	
[122] Fabrication and characterization of Au and ZnO nanowires on silicon substrate spin coated with poly(methylmethacrylate) resist.	Mr LARA, Sekhants'o	
[312] 4fN energy level schemes for the di-, tri-, and tetravalent lanthanides	Prof. SWART, Hendrik	
[317] Privacy amplification for a quantum key distribution	Ms UMUHIRE, Marie Louise	
[368] Study of structural damage in InGaN and InAlN thin films due to Cu ⁺ ion irradiation	Mr KHOELE, Joshua	
[365] Graphene/Transition metal oxides thin films using first principle approaches	Mr PHUTHU, Lutendo	
[363] Optimal Attacks on a High-Dimensional QKD System	Mr PINNELL, Jonathan	
[69] Properties of Cubic Boron Nitride Particles formed by Ion Implantation.	Prof. DERRY, Trevor	
[250] Synthesis and Characterization of spinel type Zinc Ferrite for possible application in gas sensing	Mr MURENDENI, Nemufulwi	
[254] DFT STUDY OF SELECTED NEAR INFRARED (NIR) FREE METAL DYE MOLECULES FOR APPLICATION IN DYE SENSITIZED SOLAR CELLS	Mr RANWAHA, Tshifhiwa Steven	
[167] Design, development and characterization of a magneto-optical trap for laser cooling of Rubidium atoms: a project at the Cape Peninsula University of Technology	Dr GOVENDER, Kessie	
[162] Data Analysis and Security Development of a Wireless Mesh Network	Mr SITOBOLI, Rorisang	
[9] Mechanical properties of three stage heat treated Austempered ductile iron	Ms MULABA-KAPINGA, Delphine	
[356] Are Bessel beams resilient to aberrations and turbulence?	Ms MPHUTHI, Nokwazi Purity	
[355] Single photon emission from NV defects in diamond	Mr MAHONISI, Nyiku	
[350] DFT study of Modifications of Pt-doped TiO ₂ using N, for application in DSSCs	Mr DIMA, Ratshilumela Steve	
[359] Optical structural properties of Y ₂ SiO ₅ :Ce thin films prepared by spin coating.	Mr MASHALANE, Alfred Odirile	
[358] Growth and Characterization of Metallic Film Precursors for the Synthesis of CZTS Thin Films for Photovoltaic Applications	Ms MOIPOLAI, Tshogofatso	

[282] The effect of varying Cu ²⁺ concentration on the structure and optical property of BaAl ₂ O ₄ : x%Cu ²⁺ (0 ≤ x ≤ 1) nano-phosphors prepared using the citrate sol-gel method.	Mr MAPHIRI, Vusani Muswa	
[285] An evaluation of the Newton-Raphson iteration method in the prediction of leaf temperature	Dr KUDINHA, Martin	
[284] Physics of microwave processing of geological materials and their interactions	Prof. MULABA-BAFUBIANDI, Antoine-Floribert	
[286] Preference of Co and Sn additions on Zr-x-Nb alloy	Prof. CHAUKE, Hasani	
[261] Temporal Effect on Optical Pulse-per-second Clock Stability	Mr LEBURU, KAGISO J	
[267] Optimization of X-ray radiography	Mr NSHIMIRIMANA, Robert	
[58] First principles investigation of structural, dynamic, electronic and optical properties of Barium seleno-germanate Ba ₂ GeSe ₄	BARDE, Abdu	
[5] Migration behavior of selenium implanted into polycrystalline SiC	Mr ABDALLA, Zaki	
[56] Thermoelectric properties of CdGa ₂ O ₄ spinel	Mr RUGUT, Elkana	
[52] Lattice thermal conductivity of bulk PtSe ₂ and PtTe ₂	Mr MOHAMMED, Hamza	
[112] Cathodoluminescence degradation of Bi doped SrO phosphor powder	Mr ABDELREHMAN, Mogahid	
[44] Imaging using Ptychographic iterative algorithms	Ms ERASMUS, Anneke	
[42] Extracting a vibrational Raman spectrum from a broadband Coherent Anti-Stokes Raman Scattering measurement	Mr VILJOEN, Ruan	