

CONFERENCE PROGRAMME

TECHNICAL FORUM

MONDAY 4 DECEMBER

Venue: Pearl Room

07.00 - 08.30	<p>REGISTRATION Conference Centre Foyer</p> <p>Sponsored by Oxford Instruments NanoAnalysis</p> 	
08.30 - 08.45	<p>WELCOME AND OPENING REMARKS</p> <p>Prof Mike Lee</p>	
SESSION 1	<p>CRYO EM Chair: James Wesley-Smith</p>	
08.45 - 09.05	Trevor Sewell	Why is the Nobel Prize in Chemistry 2017 of special interest?
09.05 - 09.25	Ben Lich	Cryo EM workflows for Single Particle Analysis and Tomography of hydrated, intact cells
09.25 - 09.45	Andrew Yarwood	High performance Cryo-TEMs for Automated Data Acquisition
09.45 - 10.20	Morning TEA	
SESSION 2	<p>GENERAL Chair: Rodney Genga</p>	
10.20 - 10.40	James Troup	And you thought the UPS will last forever
10.40 - 11.10	Jacques O'Connell	Inexpensive and completely open source microscopy/science outreach tool
SESSION 3	<p>TECHNIQUES Chair: Mike Lee</p>	

11.10 - 11.30	Ute Schmidt	The benefits of correlative microscopy for high resolution structural and chemical imaging of composite materials
11.30 - 11.50	Paul Spellward	Advances in Electron Energy Loss Spectroscopy and in Imaging of Beam Sensitive Materials based on Direct Electron Detection
11.50 - 12.10	Keith Dicks	Low dead time, high throughput, spectrally corrected 'Live' EDS
12.10 - 13.15	LUNCH	


MONDAY 4 DECEMBER – AFTERNOON		
--------------------------------------	--	--


SESSION 4	INSTRUMENTATION Chair: Jacques O'Connell	
13.15 - 13.35	Hugo Fernandes	TESCAN S8000 FIB-SEM
13.35 - 13.55	Andrew Yarwood	A new approach to a fully integrated SEM
13.55 - 14.15	Peter Gnauck	High resolution imaging, nanostructuring and nano analytics with He and Ne Ions
14.15 - 14.35	Ming Wu	Tosca™400 – The pioneer of AFM in industrial environments
SESSION 5	IMAGING Chair: Alan Hall	
14.40 - 15.00	Soren Prag	Celldiscoverer 7: Your Automated Platform for Live Cell Imaging
15.00 - 15.20	Paul Spellward	Upgrade your workflow and enhance your TEM imaging with Gatan's Rio and OneView cameras
15.20 - 15.40	Keith Dicks	The introduction of CMOS technology in a single EBSD detector exceeds the performance of either sensitive or fast CCD designs
CLOSING REMARKS FOR TECHNICAL FORUM		
AFTERNOON TEA		

17.30 - 21.00	WELCOME COCKTAIL EVENT Venue: Eagle Restaurant	
---------------	--	--

SCIENTIFIC PROGRAMME

TUESDAY 5 DECEMBER- MORNING

7.30 – 8.00	<p>REGISTRATION Conference Centre Foyer</p> <p>Sponsored by Oxford Instruments NanoAnalysis</p>	 <i>The Business of Science®</i>
-------------	---	--

8.15 - 8.40	<p>WELCOME AND OPENING Venue: Pearl Room</p>  <p>DEPUTY VICE-CHANCELLOR: RESEARCH, POSTGRADUATE STUDIES AND INNOVATION PROF OA AYO-YUSUF</p>	
8.40 - 9.00	<p>Conference Announcements and Address by Prof. Jannie Neethling, MSSA President</p>	
9.00 - 10.00	<p>39th JOHN MATTHEWS MEMORIAL LECTURE</p> <p>THE PROBLEM OF LENGTH SCALES IN THE CHARACTERISATION AND INVENTION OF IRON-BASED ALLOYS SIR HARRY BHADESHIA Chair: Dr Johan Westraadt</p>	
10.00 -10.30	<p>TEA</p>	
<p>SESSION 1</p>	<p>Venue: Pearl Room Chair: Prof. Mike Lee</p>	<p>Venue: Coral Room Chair: Prof. John Soley</p>
10.30 - 10.50	<p>A STUDY OF ULTIMET AND STELLITE 6 COATINGS WITH RUTHENIUM ON CARBON STEEL SUBSTRATES</p> <p>S.I. Hango, J.W. van der Merwe, L.H. Chown, F.P.L. Kavishe and <u>L.A. Cornish</u></p>	<p>ARRANGEMENT OF HERBST CORPUSCLES IN THE OROPHARYNX OF THE OSTRICH AND EMU</p> <p><u>M. R. Crole</u> and J. T. Soley</p>


10.50 - 11.10	COMPARISON OF MICROSTRUCTURES AND PROPERTIES OF POTENTIAL RAIL AXLE STEELS <u>D.E.P. Klenam</u> , L.H. Chown, M.J. Papo and L.A. Cornish	TEMPORAL ANALYSIS OF CROCODILE LUNG STRUCTURES USING LIGHT MICROSCOPY <u>Z. Sityata</u> , C. Kuiper, S. Schoeman and D. Reddy
11.10 - 11.30	CSEF STEEL SUBGRAIN MEASUREMENTS USING EBSD, TKD AND TEM <u>G. Marx</u> and J.E. Westraadt	IDENTIFICATION OF A POSSIBLE ETIOLOGICAL AGENT CONTRIBUTING TO HIGH MORTALITY RATES OF <i>Crocodylus niloticus</i> EMBRYOS ON SOUTH AFRICAN CROCODILE FARMS <u>A.V. Lensink</u> , F.S. Botha, C.F. van der Merwe, C. Baker and J.G. Myburg
11.30 - 11.50	GRAPHITE FORMATION IN POLYCRYSTALLINE DIAMOND WITH SOLID SOLUTION BINDER ADDITIONS J.E. Westraadt	EFFECTS OF ANTHROPOGENIC STRESSORS ON THE HEALTH AND GILL MORPHOLOGY OF <i>Oreochromis mossambicus</i> <u>B.M. Phala</u> , C. Baker, D. Meyer-Josling, D. Vosloo, A. Vosloo, J.R. Sara, W.J. Smit and W.J. Luus-Powel
11.50 - 12.10	DISLOCATION DENSITIES IN POLYCRYSTALLINE DIAMOND SINTERED AT ULTRA-HIGH PRESSURE <u>E.G. Minnaar</u> , J.E. Westraadt and J.H. Neethling	USING 3D SPHEROIDS AS A COMPOUND TESTING PLATFORM FOR CANCER DRUG DEVELOPMENT <u>T. Jurgens</u> , M. Botes, A. Joubert and I. van den Bout
12.10 - 12.30	MICROSTRUCTURAL INVESTIGATION OF Ni-BONDED NbC INSERTS WITH Mo ₂ C ADDITION DURING GCI FACE-MILLING <u>R.M. Genga</u> , L.A. Cornish, P. Rokebrand, C. Polese, M. Woydt and A. Janse van Vuuren	CHARACTERIZING MEMBRANE PATHOLOGY IN ERYTHROCYTES FROM INDIVIDUALS WITH RHEUMATOID ARTHRITIS <u>O.O. Olumuyiwa-Akeredolu</u> , P. Soma, A.V. Buys, L.K. Debusho and E. Pretorius

12.50 - 14.00	LUNCH Venue: Eagle Restaurant Workshops to be held adjacent to Exhibition space - No bookings required*
13.00-13.30	*WORKSHOP: <i>Fundamentals of Raman Microscopy</i> . Dr Ute Schmidt, WITEC
13.30-14.00	*WORKSHOP: <i>Celldiscoverer 7: Your Automated Platform for Live Cell Imaging</i> . Soren Prag, ZEISS

TUESDAY 5 DECEMBER - AFTERNOON

SESSION 2	Venue: Pearl Room Chair: Prof. Lesley Cornish	Venue: Coral Room Chair: Dr James Wesley-Smith
14.00-14.20	<p>ATMOSPHERIC PRESSURE <i>IN SITU</i> TEM OF THE BOUDOUARD REACTION ON COBALT NANOPARTICLES</p> <p>G.M. Bremmer, E. Zacharaki, A.O. Sjøstad, V. Navarro, J.W.M. Frenken and <u>P.J. Kooyman</u></p>	<p>Keynote Address</p> <p>FREEZE FRACTURE: PAST AND FUTURE</p> <p>R. Fleck</p>
14.20-14.40	<p>ATOMICALLY RESOLVED STRUCTURE AND ACTIVE SITES OF Co₃O₄</p> <p><u>O. Makgae</u>, A. Moya, C. Huang, E. Liberti and A.I Kirkland</p>	
14.40-15.00	<p>STRUCTURAL CHARACTERISATION OF A THIN SN FILM ANNEALED UNDER X-RAY PHOTOELECTRON SPECTROSCOPY VACUUM</p> <p><u>F. Modiba</u>, C.J. Oliphant, W.A. Jordaan and C.J. Arendse</p>	<p>CELLULOSE EXTRACTION FROM MAIZE TASSEL</p> <p>M.A. Ballim</p>
15.00-15.20	<p>THE EFFECT OF THERMAL ANNEALING ON ELEMENTAL COMPOSITION AND MORPHOLOGICAL PROPERTIES OF Pd THIN FILMS GROWN ON c-Si SUBSTRATE.</p> <p><u>M. Masenya</u>, S. Halindintwali, M. Madhuku, F. Cummings, A. Shnier, D. Billing and D. Wamwang</p>	<p>ANTIFUNGAL MODE OF ACTION OF OBLIQUUMOL ISOLATED FROM <i>Ptaeroxylon obliquum</i> AND AMPHOTERICIN B ON <i>Candida albicans</i> USING ELECTRON MICROSCOPY</p> <p><u>C. van Wyk</u>, F.S. Botha, C.F. van der Merwe and C. Baker</p>
15.20-15.40	<p>AN INVESTIGATION OF THE <i>IN VITRO</i> PROPERTIES OF POROUS BIOACTIVE GLASSES FOR CLINICAL USE</p> <p><u>E.P. Erasmus</u>, R. Sule, O.T. Johnson, I. Sigalas and J. Massera</p>	<p>ELECTRON MICROSCOPIC INVESTIGATION OF THE SITE OF ANTIMICROBIAL ACTIVITY OF HENTRIACONTANE ON <i>Enterococcus faecalis</i></p> <p><u>F.S. Botha</u>, I.L. Elisha, A.R. Jambalang, C.F. Van der Merwe and C. Baker</p>
15.40-16.00	BREAK	

SESSION 3	Venue: Topaz Room POSTER SESSION 1 Chair: Prof. Patricia Kooyman	Venue: Emerald Room POSTER SESSION 1 Chair: Dr Martina Crole
16.00-16.10	SYNTHESIS AND CHARACTERISATION OF Ag ₃ PO ₄ NANOPARTICLES EMBEDDED ON HIERARCHICAL NANOCELLULOSE SHEETS <u>L. Lebogang</u> and C. Muiva	INVESTIGATION INTO THE ROLE OF GPER-1 IN CANCER CELL ADHESION AND MIGRATION <u>M. Botes</u> and I. van den Bout
16.10-16.20	OSMIUM AS A POTENTIAL FISCHER-TROPSCH CATALYST USING HOLLOW CARBON SPHERES AS SUPPORT <u>T. Molefe</u> , N.J. Coville and R. Forbes	THE EFFECT OF LIPID BINDING PROTEIN AND ASPIRIN ON INFLAMMATION INDUCED BY LIPOPOLYSACCHARIDE <u>S. Mbotwe</u> , J. Bester, D.B. Kell and E. Pretorius
16.20-16.30	SYNTHESIS OF NITROGEN DOPED CARBON DOTS/POLYMER COMPOSITES FOR THEIR APPLICATION IN ORGANIC PHOTOVOLTAIC SOLAR CELLS <u>P.G. Mphago</u> , N.J. Coville, D. Wamwangi and M.S. Maubane	REGULATING CELL MIGRATION FROM THE MICROTUBULES: HOW ONE SKELETON SPEAKS TO ANOTHER R. Janse van Vuuren, A.M. Joubert and <u>I. van den Bout</u>
16.30-16.40	SYNTHESIS AND CHARACTERISATION OF WATER SOLUBLE CARBON NANO-ONIONS T.H. Mongwe, N.J. Coville and <u>M.S. Maubane</u>	EPOXYSCILLIROSIDINE-INDUCED ULTRASTRUCTURAL CHANGES IN H9C2 RAT EMBRYONIC CARDIOMYOCYTES <u>H.I. Isa</u> , G.C.H. Ferreira, J.E. Crafford and C.J. Botha
16.40-16.50	PROPERTIES OF GOLD DECORATED N-DOPED CARBON NANOTUBES FOR POSSIBLE APPLICATION IN ORGANIC SOLAR CELLS <u>A. Makhongoana</u> , B. Mutuma, N.J. Coville and M.S. Maubane	<i>IN VITRO</i> ANALYSIS OF NEWLY SYNTHESIZED AFRICAN HORSE SICKNESS VIRUS PARTICLE TRAFFICKING <u>A. Oosthuizen</u> , E. Venter and V. van Staden
Sw2 fv5r	SYNTHESIS AND CHARACTERISATION OF BORON-DOPED MULTIWALLED CARBON NANOTUBES USING Fe-Co/CaCO ₃ CATALYST <u>Z.N. Tetana</u> , S.D. Mhlanga and N.J. Coville	VISUALIZING WHOLE-CELL TRANSLATIONAL ACTIVITY TO INVESTIGATE METABOLIC QUIESCENCE IN MYCOBACTERIA <u>C.R. Taylor</u> , D.F. Warner, V. Mizrahi and T. Egan

17.00-17.10	<p>EFFECT OF Mn-DOPING ON THE STRUCTURE AND MORPHOLOGY OF ZnO</p> <p><u>K. Lefatshe</u>, C. Muiva and B. Julies</p>	
17.10-17.20	<p>MORPHOLOGICAL AND STRUCTURAL PROPERTIES OF (La₂O₃)_{0.33} - (CuO-Co₃O₄)_{0.67} MIXED OXIDE</p> <p><u>C. Muiva</u>, F. Cummings, L. M. Lepodise and R. Bosigo</p>	
17.20-17.30	<p>CHARACTERISATION OF NICKEL SULPHIDE SENSITIZED ZINC OXIDE VERTICALLY ALIGNED STRUCTURES</p> <p><u>E.C. Linganiso</u> and O.M. Ntwaeaborwa</p>	
19.00	<p>BRAAI EVENING Venue: Lapa</p> <p>Sponsored by ADVANCED LABORATORY SOLUTIONS</p> 	

<p>7.30 - 8.30</p>	<p>REGISTRATION Conference Centre Foyer</p> <p>Sponsored by Oxford Instruments NanoAnalysis</p>  <p><i>The Business of Science®</i></p>	
<p>8.30 - 9.30</p>	<p>32nd BORIS BALINSKY LECTURE Venue: Pearl Room</p> <p>ROLE OF SCANNING ELECTRON MICROSCOPY IN IDENTIFYING CAUSES OF HUMAN AND ANIMAL PATHOLOGIES</p> <p>PROF ANTONIETTA GATTI Chair: Prof . Chant�lle Baker</p>	
<p>9.30 - 10.00</p>	<p>TEA</p>	
<p>SESSION 4</p>	<p>Venue: Pearl Room Chair: Dr Johan Westraadt</p>	<p>Venue: Coral Room Chair: Dr Eudri Venter</p>
<p>10.00 -10.30</p>	<p>Keynote Address</p> <p>ADVANCED TRANSMISSION ELECTRON MICROSCOPY FOR THE DEVELOPMENT OF HIGH-EFFICIENCY SOLAR CELLS</p> <p>Wolfgang J�ger</p>	<p>Keynote Address</p> <p>MICROSCOPY'S CONTRIBUTION TO UNRAVELLING ASPECTS OF THE AFRICAN HORSE SICKNESS VIRUS LIFE CYCLE</p> <p>Vida van Staden</p>
<p>10.30 -10.50</p>	<p>CHARACTERIZATION OF DEFECTS IN THE SYSTEM AlN/AlGaN GROWN ON SAPPHIRE SUBSTRATES BY TEM</p> <p><u>M.E. Lee</u>, J.H. O'Connell and J.E Westraadt</p>	<p>INVESTIGATING THE INTERACTION OF AHSV VIBs WITH THE HOST CELL PROTEIN SYNTHESIS APPARATUS</p> <p><u>L. Yssel</u>, E. Venter and V. van Staden</p>
<p>10.50 -11.10</p>	<p>COMPARISON OF DIFFUSION COEFFICIENTS OF Ag AND Pd-Ag ALONG SiC GRAIN BOUNDARIES</p> <p><u>J.H. Neethling</u>, E.J. Olivier and J.H. O'Connell</p>	<p>NUCLEAR LOCALISATION OF AFRICAN HORSE SICKNESS VIRUS NON-STRUCTURAL PROTEIN NS4 BETWEEN DIFFERENT SEROTYPES</p> <p><u>S. Boughan</u>, C.A. Potgieter and V. van Staden</p>

11.10 -11.30	A TEM INVESTIGATION OF THE VELOCITY EFFECT IN YIG <u>J.H. O'Connell</u> , V.A. Skuratov, A. Janse van Vuuren and M. Saifulin	INVESTIGATING THE FUNCTION OF THE NS3 TRANSMEMBRANE DOMAINS IN THE AHSV INFECTION CYCLE <u>L. Ferreira-Venter</u> , E. Venter and V. van Staden
11.30 -11.50	THE EFFECT OF SILVER ION IMPLANTATION ON THE SURFACE MORPHOLOGY OF POLISHED AND ANODISED TITANIUM SURFACE <u>I. Vazirgiantzikis</u> and S.L. George	TRANSMISSION ELECTRON MICROSCOPY ANALYSIS OF CHANGES TO <i>Cryptophlebia leucotreta</i> GRANULOVIRUS FOLLOWING ULTRAVIOLET EXPOSURE <u>P. Mwanza</u> , G.B Dealtry, M.E. Lee and S.D Moore
11.50 -12.10	MICROSCOPY ANALYSIS OF NANOCRYSTALLINE DIAMOND COATINGS ON ZIRCALOY <u>S. Ngongo</u> , A. Janse van Vuuren, J.H. Neethling, E.J. Olivier and I. Kratochvílová	THE INFECTION STRATEGY OF <i>Exserohilum turcicum</i> IN <i>Zea mays</i> <u>R.G. Kotze</u> , B.G. Crampton and Q. Kritzinger
12.10 –12.30	METAL DUSTING RESISTANCE OF COPPER ION IMPLANTED 304L STAINLESS STEEL <u>Y.A. Mgwebi</u> and J.W. van der Merwe	
12.30-14.00	LUNCH Venue: Eagle Restaurant Workshops to be held adjacent to Exhibition space- No bookings required*	
13.00- 13.30	*WORKSHOP: Advances in TEM Imaging and Analysis from Gatan. Dr Paul Spellward, Gatan, UK.	
13.30- 14.00	*WORKSHOP: Getting the most from your AZtec EBSD system . Keith Dicks, Oxford Instruments NanoAnalysis	

WEDNESDAY 6 DECEMBER - AFTERNOON

SESSION 5	Venue: Pearl Room Chair: Prof. Rob Knutsen	Venue: Coral Room Chair: Erna van Wilpe
14.00 - 14.20	<p>THE EFFECT OF LASER SHOCK PEENING ON FATIGUE PROPERTIES OF VARIOUS MATERIALS</p> <p>A.C Carlisle and <u>S.L. George</u></p>	<p>EVOLVING HAEMODYNAMICS IN MIGRAINE PATHOPHYSIOLOGY: A CAUTIONARY TALE FOR THROMBO-EMBOLIC ISCHAEMIC STROKE</p> <p><u>S. de Villiers</u>, J. Bester and R. Pretorius</p>
14.20 - 14.40	<p>THE ROLE OF HOMOGENISATION CONDITIONS ON INTERMETALLIC PARTICLE FRAGMENTATION DURING BREAKDOWN ROLLING OF AA3104 ALUMINIUM ALLOY</p> <p><u>S. Baron</u> and S.L. George</p>	<p>THE EFFECT OF TWO DROSPERINONE-CONTAINING ORAL CONTRACEPTIVES ON BLOOD CLOTTING AND ERYTHROCYTE ULTRASTRUCTURE</p> <p><u>O. Emmerson</u>, B.G Lindeque and A.C Swanepoel</p>
14.40 - 15.00	<p>ASSESSMENT OF HOMOGENISATION PROGRESS IN SINTERED DIRECT POWDER ROLLED Ti-6Al-4V STRIP</p> <p><u>H. Naicker</u> and R.D. Knutsen</p>	<p>POSITIVE IMPACT OF ORAL CONTRACEPTIVE USE ON WHOLE BLOOD PROFILE IN POLYCYSTIC OVARIAN SYNDROME</p> <p><u>A.C. Swanepoel</u>, S. de Villiers, O. Emmerson and E. Pretorius</p>
15.00 - 15.20	<p>EFFECT OF STRAIN RATE AND TEMPERATURE ON THE MICROSTRUCTURE AND TEXTURE DEVELOPMENT IN Ti-6Al-4V ALLOY</p> <p><u>K. A. Kafer</u>, R. D. Knutsen¹ and S. L. George</p>	<p>EFFECTS OF CADMIUM AND CHROMIUM ALONE AND IN COMBINATION ON THE COAGULATION SYSTEM</p> <p><u>C. Venter</u>, H.M. Oberholzer, J. Bester, M. van Rooy and M.J. Bester</p>
15.20 - 15.40	<p>ANALYSIS OF A SPARK PLASMA SINTERED CARBON NANOTUBE REINFORCED Ti6Al4V COMPOSITE</p> <p>A.O. Adegbenjo, <u>M. Lesufi</u>, M.R. Mphahlele, P.A. Olubambi and J.E. Westraadt</p>	
15.40 – 16.00	TEA	


SESSION 6	Venue: Topaz Room POSTER SESSION 2 Chair: Dr Jacques O'Connell	Venue: Emerald Room POSTER SESSION 2 Chair: Dr Albe Swanepoel
16.00 - 16.10	<p>THE EFFECT OF SPS TEMPERATURE ON THE MICROSTRUCTURE AND MECHANICAL PROPERTIES OF ALUMINA</p> <p><u>S.S. Ndinisa</u>, D.J. Whitefield and I. Sigalas</p>	<p>VITAMIN D3 PRO-HORMONE EXERTS GROWTH-MODIFYING EFFECTS ON AN IN VITRO METASTATIC EPIDERMAL CERVICAL CARCINOMA CELL LINE</p> <p><u>R. Punchoo</u>, S. Maas, A. Stoltz and A. Joubert</p>
16.10 - 16.20	<p>HIGH TEMPERATURE PHASE INVESTIGATION OF Fe-Mn-S TERNARY SYSTEM</p> <p><u>S. Mlowe</u>, T. Moyo and N. Revaprasadu</p>	<p>INVESTIGATING THE <i>IN VITRO</i> CYTOTOXIC EFFECTS OF BOVINE SERUM ALBUMIN STABILISED TITANIUM DIOXIDE NANOPARTICLES USING MOUSE MYOBLAST CELLS</p> <p><u>W.N. Phoswa</u>, P. Pillay, K. Moodley and K. Maduray</p>
16.20 - 16.30	<p>EFFECT OF TiN NANOPARTICLES ADDITIONS ON THE MORPHOLOGY OF TWO PHASE TITANIUM ALLOY</p> <p><u>M.E. Maja</u>, O.E. Falodun, B.A Obadele , S.R. Oke , O.O. Ige and P.A Olubambi</p>	<p>MICROSCOPIC CYTOARCHITECTURE AND IMMUNO MARKERS IN NICOTINE-INDUCED TESTICULAR TOXICITY: THE PROTECTIVE ROLE OF TESTOSTERONE</p> <p><u>V.O. Ukwanya</u> and A.E. Omonisi</p>
16.30 - 16.40	<p>WEAR STUDIES ON NANO TIN DISPERSED SAF 2205</p> <p><u>M.R. Mphahlele</u>, S.R. Oke, O.O. Ige, B.A. Obadele and P.A. Olubambi</p>	<p>GASTROPROTECTIVE ACTIVITIES OF <i>Musa paradisiaca</i> ON ASPIRIN INDUCED LESION IN WISTAR RATS</p> <p><u>M.O. Alese</u>, S.O. Adewole and O.O. Alese</p>
16.40 - 16.50	<p>INITIAL STUDY OF AS-CAST Co-Fe-Pd SAMPLES</p> <p><u>K. Dyal Ukabhai</u> and L.A. Cornish</p>	<p>HISTOLOGY AND SURFACE ULTRASTRUCTURE OF THE TONGUE IN THE STRAW-COLOURED FRUIT BAT (<i>Eidolon helvum</i>)</p> <p><u>C.O. Igbokwe</u>, M.B. Umar and F.E. Mbajorgu</p>
16.50 – 17.00	<p>INVESTIGATION OF THE CORROSION RESISTANCE OF nc-TiZrN LAYERS DEPOSITED ON ZIRLO</p> <p><u>H.S. Nyembe</u>, J.H. Neethling, A. Janse van Vuuren and V.V. Uglov</p>	<p>A PRELIMINARY EVALUATION OF THE MORPHOMETRY AND MORPHOLOGY OF THE SEMI-FOSSORIAL LUNG OF THE AFRICAN GIANT (<i>Cricetomys gambianus</i>)</p> <p><u>C.O. Igbokwe</u> and J.N. Maina</p>

17.00 - 17.10	<p>EVIDENCE FOR HYDROTHERMAL ALTERATION IN THE MINERAL CALDASITE</p> <p><u>M.E. Lee</u>, J.H. O'Connell, A. Janse van Vuuren and W.E. Goosen</p>	
17.10 - 17.20	<p>DETERMINATION OF THE DIFFUSION COEFFICIENT OF SILVER IN PALLADIUM SILICIDE</p> <p><u>D.M. Tshwane</u>, J.H. Neethling, E.J. Olivier and J.H. O'Connell</p>	
17.20 - 17.30	<p>MORPHOLOGICAL CHARACTERISATION OF ZnO NANOWIRES GROWN BY HYDROTHERMAL SYNTHESIS ON GAZA THIN FILMS</p> <p><u>E. Muchuweni</u>, T. S. Sathiaraj and H. Nyakoty</p>	
19.00	<p>AT LEISURE - FREE EVENING STUDENT EVENING Venue:Wave Pool</p>	

THURSDAY 7 DECEMBER - MORNING

7.30- 8.15	<p>REGISTRATION Conference Centre Foyer</p> <p>Sponsored by Oxford Instruments NanoAnalysis</p>  <p><i>The Business of Science®</i></p>
SESSION 7	<p>Venue: Pearl Room</p> <p>Chair: Dr Rodney Genga</p>
08.20-08.40	<p>EFFECT OF NITRIC ACID CONTAMINATION ON MILD STEEL CORROSION RESISTANCE IN HYDROFLUORIC ACID</p> <p><u>R. van der Merwe</u>, L.A. Cornish and J.W. van der Merwe</p>
08.40- 09.00	<p>CORROSION RESISTANCE OF RUTHENIUM PLATED COPPER</p> <p><u>W. Zaba</u> and J.W. van der Merwe</p>
09.00- 09.20	<p>STRESS CORROSION CRACKING OF LASER ALLOYED STAINLESS STEEL IN AN OXYGENATED CHLORIDE SOLUTION</p> <p><u>N.N. Tshilwane</u> and J.W. van der Merwe</p>
09.20 –9:40	<p>MICROSTRUCTURE CHARACTERISATION OF AS-CAST GAMMA-TITANIUM ALUMINIDE BASED INTERMETALLIC ALLOY</p> <p><u>M.N. Mathabathe</u>, G. Govender, R.J. Mostert and C.W. Siyasiya</p>
9.40- 10.00	<p>MECHANICAL PROPERTIES OF SINTERED Al₂O₃-SiC AND Al₂O₃-TiC COMPOSITES</p> <p><u>S.T. Alweendo</u>, E.P. Erasmus, O.T. Johnson and I. Sigalas</p>
10.00-10.30	<p>TEA</p>

10.30 -13.00	 <p>ANNUAL GENERAL MEETING</p> <p>Venue: Pearl Room</p> 
--------------	---

13.00 -14.00	<p>LUNCH Venue: Eagle Restaurant Workshops to be held adjacent to Exhibition space- No bookings required*</p>
13.00- 13.30	<p>*WORKSHOP: ZEISS MultiSEM: The World's Fastest Scanning Electron Microscope. Peter Gnauck, ZEISS</p>
	<p>*WORKSHOP: FIB nanofabrication, 3D analysis, sample preparation and imaging: a must have tool for Nanotechnology. Hugo Fernandes, TESCAN</p>
<p>END OF TECHNICAL AND SCIENTIFIC PROGRAMME</p>	
19.00	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <p>GALA DINNER & AWARDS CEREMONY Venue: Pearl Room</p> <p>sponsored by ZEISS</p> </div> <div style="text-align: right;">  </div> </div>