### **Materials Science**

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DEVELOPMENT OF BETA TYPE TITANIUNM BASED ALLOYS FOR DENTAL APPLICATIONS	K. Dyal Ukabhai
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PRODUCTION OF SrVO <sub>3</sub> THROUGH CO-PRECIPITATION SYNTHESIS AND ANNEALING IN REDUCING ATMOSPHERE.	E. Lee

EFFECTS OF TiC <sub>7</sub> N <sub>3</sub> ADDITIONS AND SINTERING TECHNIQUE ON THE MICROSTRUCTURAL PROPERTIES OF NbC-BASED CERMETS	N.P. Mphasha
TOOL LIFE OF NbC-BASED CERMETS DURING FACE MILLING OF AUTOMOTIVE GCI	M.S. Rabothata
AN IN-SITU HEATING TEM INVESTIGATION OF CELL FORMATION IN THE AA5182 ALUMINIUM ALLOY	G. K. Morrison
GREEN SYNTHESIS OF MAGNETITE NANOPARTICLES SUPPORTED ON ELECTROSPUN NANOFIBRE	L.B Osei
MOLECULAR DYNAMICS AND TEM INVESTIGATION OF SWIFT HEAVY ION TRACKS IN INSULATORS	R.A. Rymzhanov
THERMODYNAMIC PARAMETERS FOR THE STABILIZATION AND TRANSFORMATION OF TETRAGONAL SHI TRACKS IN MONOCLINIC ZIRCONIA	M.E. Lee
OPTIMIZATION OF THE ADDITION OF NIOBIUM AS A BETA STABILIZER IN A TITANIUM ALLOY FOR MEDICAL APPLICATIONS	K.E. Mrwata
A HIGH-RESOLUTION TEM STUDY OF THE INTERACTION OF SWIFT HEAVY IONS WITH INSULATORS	A. Janse van Vuuren
Ti3Al EMBRITTLEMENT IN TEMPORARY HYDROGEN ALLOYED Ti-6Al-4V	V.N. Vilane
FORMATION OF MODIFIED Z-PHASE IN A 12Cr1MoV TMF STEEL DURING LONG-TERM CREEP	W.E. Goosen
HR-EBSD ANALYSIS OF IN SITU STABLE CRACK GROWTH AT THE MICRON SCALE	T.H. Becker

SIMULATION OF LONG-TERM HIGH TEMPERATURE EXPOSURE OF X20 STEEL THROUGH LABORATORY ACCELERATRED AGEING	S. Allies
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SPINODAL DECOMPOSITION OF Ti-6Al-4V-xH MARTENSIT	R.D. Knutsen
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EFFECTS OF FEMTO-LASER CHIP BREAKER AND Ni-Mo BINDERS ON AISI1213 TURNING USING NbC-BASED INSERTS	R.M. Genga
MULTISCALE FEATURE ENGINEERING FOR MACHINE LEARNING STRUCTURE-PROPERTY MODELS FOR CARBON STEELS	L. Westraadt
INFLUENCE OF SINTERING TEMPERATURE ON THE MECHANICAL PROPERTIES OF SINTERED ZRO2/SI3N4 DOPED TI6AI4V	O.A. Ogunmefun
CARBON FIBERS GROWN FROM A COPPER NANOPARTICLE ENCAPSULATED WITHIN THE HOLLOW CARBON SPHERES	M.S Maubane-Nkadimeng

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STRUCTURAL CHARACTERIZATION OF AMORPHOUS AND CRYSTALLINE MOLYBDENUM PHOSPHIDE CATALYSTS FOR HYDROGEN EVOLUTION REACTION	S.S. Nkabinde
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MICROSTRUCTURE AND MECHANICAL PROPERTIES OF CREEP-EXHAUSTED 14MoV6-3 STEEL AFTER REGENERATIVE HEAT TREATMENT	T. Masole
ANALYSIS OF In <sub>x</sub> Ga <sub>1-x</sub> As EPILAYERS BY INFRARED SPECTROSCOPY AND ELECTRON MICROSCOPY	J.A.A. Engelbrecht
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SCANNING TUNNELING MICROSCOPY: INSIGHTS FROM FIRST PRINCIPLES CALCULATIONS	A. M. Ukpong
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DEVELOPMENT OF HYDRODESULFURIZATION CATALYSTS FOR THE REFRACTORY SULFUR COMPOUNDS: EFFECT OF CHELATIG LIGANDS AND SUPPORT	S. Majodina
STRUCTURAL EFFECTS OF HIGH-ENERGY HEAVY ION IMPACT IN NANOCRYSTALLINE Y-Ti-O AND Y-Al-O	A. Ibrayeva
ANALYSIS OF NANOCRYSTALLINE DIAMOND LAYERS DEPOSITED ON ZIRLO	S. Ngongo
SYNTHESIS OF NOVEL MICRO AND NANOSTRUCTURED MIXED-METALS OF WO3 PHOTOCATALYSTS FOR THE REDUCTION OF CO2	M. Mgolombane
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CHEMICAL ANALYSIS OF NANO-SIZED STEEL PRECIPITATES USING SCANNING ELECTRON MICROSCOPY	N.W. Mfuma

BACK-ANNEALING OF HOT DIP GALVANISED STRIP STEEL MICROALLOYED WITH VANADIUM	J.S. Steyn
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IMMERSION STUDIES OF PLASMA SPRAYED HYDROXYAPATITE COATINGS DEPOSITED ON GEOMETRICALLY DIFFERENT Ti-6Al-4V ALLOY SUBSTRATES	U. Dockrat
EFFECTS OF MECHANICAL ALLOYING ON SPARK PLASMA SINTERING OF Fe-Ni-Si POWDERS	B.L. Bayode
EFFECT OF MICROSTRUCTURE ON CORROSION BEHAVIOR OF AISI 316 L STAINLESS STEEL IN SIMULATED BODY FLUID.	N.K. Ngeleshi
TUNING PREPARATION - INDUCED RELAXATION DYNAMICS IN HETEROGENEOUS POLYMER FILMS	A. A. Mulama
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AN IN VITRO INVESTIGATION OF KYNURENINE COMPOUNDS ON MELANOMA GROWTH AND INTRACELLULAR MORPHOLOGY	C. Basson
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INVESTIGATING THE EFFECTS OF COVID-19 VACCINES ON THE COAGULATION SYSTEM	C. Venter
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MICROSCOPIC ARCHITECTURE OF JAPANESE QUAIL LUNGS CHALLENGED BY THERMAL EXPOSURE	A. Abdulkadir
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HISTOMORPHOLOGICAL EFFECTS OF MELATONIN AND CART ON THE PANCREAS AND KIDNEY IN RATS	D. Venter
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IN VITRO EFFECTS OF MAZ-51 IN COMBINATION WITH EGCG IN MELANOMA CELLS	C.C. Nadasen
A MORPHOLOGICAL STUDY OF THE PULMONARY COMPONENTS IN THE LUNGS OF THE RED-EARED SLIDER	S. Mulder
MICROSTRUCTURE OF THE SPLEEN OF THE SOUTHERN WHITE RHINOCEROS (Ceratotherium simum)	A. Metzinger
MODULATORY EFFECTS OF Nigella sativa OIL ON HIPPOCAMPUS OF DIZOCILPINE-INDUCED SCHIZOPHRENIA IN BALB/c MICE	R.O. Folarin
25-HYDROXYVITAMIN D3 INDUCES BIOCHEMICAL AND MORPHOLOGICAL APOPTOSIS IN THE HELA CELL LINE	E.V.M. Zhou

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HISTOLOGY OF THE SOUTHERN GROUND-HORNBILL (Bucorvus leadbeateri) GASTRO-INTESTINAL TRACT	A.D. Naude
SCREENING OF SELECTED EDIBLE WILD FRUITS FROM THE TSWAPONG REGION (BOTSWANA) FOR THEIR ANTIOXIDANT AND ANTIMICROBIAL POTENTIAL	K. Lashani
MORE THAN JUST A PRETTY PICTURE: EXPLORING THE TRUE IMPORTANCE OF MICROSCOPY	A.C. Swanepoel
HERE IS LOOKING AT YOU, YEAST	C.H. Pohl
APPLICATION OF ANIMAL MODELS IN HEAVY METAL TOXICITY RESEARCH	H.M. Oberholzer
MACRO- AND MICROMORPHOLOGICAL STUDY OF LOCAL MANGIFERA INDICA L. LEAVES	A. Maharaj
EVALUATION OF APOPTOTIC IMPACT OF ATORVASTATIN ON PERIPHERAL BLOOD MONONUCLEAR CELLS INFECTED WITH M. tuberculosis	S. Sabeel
AMELIORATION OF OLFACTORY DEFICITS BY Nigella Sativa OIL IN DEVELOPMENTALLY MODELLED SCHIZOTYPY IN BALB/c MICE	A.A. Bello
SELECTIVE SENSITIVITY OF BALB/c MICE IN MPTP-INDUCED SUB-ACUTE PARKINSONISM AND THE FRONTO-CORTICAL IMPACTS OF Nigella sativa OIL	K.O. Adeniran
THE EFFECT OF SYSTEMIC LIPOPOLYSACCHRIDES ON THE CARDIOVASCULAR SYSTEM IN SPRAGUE-DAWLEY RATS	I.G. Tambwe

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TRICKY TRICHODINIDS WITH DAUNTING DENTICLES	J. Hastings
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