SAIP2012 / Programme Tuesday 10 July 2012

# **SAIP2012**

# Tuesday 10 July 2012

# DCMPM2: PhD Prize Awards (11:00-12:20)

-Conveners: Nithaya Chetty

time	[id] title	presenter
11:00	[48] Van der Waals density functional studies of hydrogen adatoms on bilayer graphene	Mr MAPASHA, Edwin
11:20	[77] Brillouin scattering study of ion-implanted chemical vapour deposited diamond	Dr MATHE, B. A Mr MOTOCHI, Isaac
11:40	[80] SnO <sub>2</sub> NCs morphology control during microwave synthesis	Mr RAKGALAKANE, Ben
12:00	[188] Synthesis and characterization of ZnO flower-like nanostructures using the chemical bath deposition method	Mr KOAO, Lehlohonolo

## DCMPM2: PhD Oral Prize (14:30-15:50)

-Conveners: Craig Comrie

time	[id] title	presenter
	[107] Nanostructured tungsten trioxide thin films by aqueous chemical growth for applications in gas sensing and electrochromism	Mr SONE, Bertrand
	[121] Tuning the electrical transport properties of carbon nanotubes (MWNTs and DWNTs) through semiconductor, semi-metal and metal filling	Mr CHIMOWA, George
15:10	[154] First principles LDA + U and GGA + U study of protactinium and protactinium oxides: Dependence on the effective U parameter	Mr OBODO, Kingsley
	[170] Comparative Study of Nanostructures VO2 nanoplates: Annealing effect and Structural Properties	Ms SIMO, Aline

SAIP2012 / Programme Wednesday 11 July 2012

# Wednesday 11 July 2012

## **DCMPM2: PhD Oral Prize** (08:00-09:20)

-Conveners: Max Chirwa

time	[id] title	presenter
08:00	[173] Effect of ruthenium on oxidation behaviour of copper interconnect	Mr SULE, RASIDI
	[184] The effect of nano-sized Alq3 on the external quantum and power efficiency of OLEDs	Ms DUVENHAGE, Mart-Mari
	[357] Spin density wave behaviour in the (Cr <sub>84</sub> Re <sub>16</sub> ) <sub>100-y</sub> V <sub>y</sub> system	Mrs JACOBS, Bincy Susan
09:00	[92] Mechanical properties of graphene and boronitrene	Mr ANDREW, Richard

## <u>DCMPM2: PhD Oral Prize</u> (10:55-11:55)

-Conveners: Ncholu Manyala

tim	e [id] title	presenter
10:	[196] Synthesis and characterization of europium activated lanthanum oxysulphide by sol- combustion method	Mr ALI, Ali Abdub Guyo
11:	[245] Erbium point defects and complexes in GaN: A G0W0 and hybrid functional study	Mr OUMA, Cecil

## DCMPM2: PhD Oral Prize (16:30-17:50)

-Conveners: Walter Meyer

time	[id] title	presenter
	[283] The effect of temperature on the calculated bulk vacancy formation energy in Al and Cu	Ms VAN DER WALT, Cornelia
16:50	[298] Structural, Electronic and Optical Properties of Gold Nitrides	Mr SULEIMAN, MOHAMMED
17:10	[308] Interaction mechanism for energy transfer from Ce to Tb ions in silica	Mr SEED AHMED, Hassan
17:30	[309] Growth and characterization of RF Magnetron Sputtered NbN and ZrN thin films	Mr KURIA, Jonah

SAIP2012 / Programme Thursday 12 July 2012

# **Thursday 12 July 2012**

# DCMPM2 (08:00-09:20)

#### -Conveners: Mandla Msimanga

time	[id] title	presenter
08:00	[326] Charge injection at metal–polymer interfaces	Mr JHAMBA, Lordwell
08:20	[398] Quantification of printed silicon aggregates using Ultra-small angle X-ray scattering	Mr JONAH, Emmanuel Ohieku Jonah
08:40	[400] NiS Nanostructures for Application in Room Temperature Gas Sensors	Ms CEBISA, Ella
09:00	[443] Nitrogen-vacancy in diamond for Solid-state quantum computing	Mr ZULU, Bheki

# DCMPM2 (11:00-12:20)

## -Conveners: Jacqueline Nel

time	[id] title	presenter
	[500] Effect of Li composition on HCP to BCC phase transformation in ultra-lightweight binary Mg-Li alloys: an ab initio study	Mr PHASHA, Maje
	[507] Temperature dependence of the capture cross section for the E3 defect in Ir/ZnO Schottky contacts	Mr MTANGI, Wilbert
11:40	[313] The magnetocaloric effect in PrNiSi <sub>2</sub>	Mr SNYMAN, JL
	[20] Defects in the traditional analogy between the dipolar structure of a circular current and a simple electric dipole's	Dr CHIRWA, Max

# DCMPM2 (14:10-15:30)

## -Conveners: Kharouna Talla

time	[id] title	presenter
14:10	[106] Magnetic 4f-systems and their application in spintronics	Dr NOLTING, Volkmar
14:30	[490] Accurate model of Si-Ge-Sn alloys:Electronic and Optical properties	Dr AZEMTSA DONFACK, Hermann
	[195] Segregation measurements of In and S on a Cu(In,S) ternary alloy using Auger Electron Spectroscopy coupled with a linear programmed heater	Mr MADITO, Moshawe
15:10	[90] Semiconducting quantum dots: emerging materials for photovoltaics	Dr MOLOTO, Nosipho

# <u>DCMPM2</u> (16:00-17:20)

#### -Conveners: Johan Malherbe

time	[id] title	presenter
	[33] Synthesis and Characterisation of Titania supported Gold nanoclusters for Catalysts via Magnetron Sputtering	Dr HARRIS, Richard
	[28] Surface structure modification of Cu(111) by Sb dopants for temperature sensing application	Mr NDLOVU, Gebhu
16:40	[538] CMPMS Division Group Meeting	Prof. ENGELBRECHT, Japie

SAIP2012 / Programme Friday 13 July 2012

# **Friday 13 July 2012**

# <u>DCMPM2</u> (08:00-09:20)

time [id] title	presenter
08:40 [546] Non-Specialist Talk	

<u>DCMPM2</u> (11:00-12:20)