

International Conference on Interdisciplinary Nanoscience for Energy, Life and Environment (INELE 2013)

WLB 104, Lam Woo International Conference Centre

Programme Overview

	Sun 15 Dec	Mon 16 Dec	Tue 17 Dec	Wed 18 Dec	Thu 19 Dec
08:15-08:45	Registration	Registration	Registration	Registration	
08:45-09:00	Opening	Mon1 Graphene	Tue1 Energy	Wed1 Biology	Excursion with Lunch in Cheung Chau
09:00-10:45	Sun1 Biology				
10:45-11:15	Break				
11:15-13:00	Sun2 Energy	Mon2 Magnetism	Tue2 Environment	Wed2 Energy	
13:00-14:00	Lunch				
14:00-16:00	Sun3 Environment	Mon3 Energy	Tue3 Nanostructure	Wed3 Theory	
16:00-16:15	Photo	Break			
16:15-16:30	Break				
16:30-17:45	Sun4 Theory	Mon4 Graphene-like	Tue4 Theory	Wed4 Theory & Experiment	
17:45-18:15	Poster Presentation				
18:15-18:30					
19:00-21:00	Free evening	Banquet at CityU	Free evening	Free evening	

International Conference on Interdisciplinary Nanoscience for Energy, Life and Environment (INELE 2013)

WLB 104, Lam Woo International Conference Centre

Programme Schedule

December 15 (Sunday)

8:15 - 8:45	REGISTRATION	
8:45 - 9:00	OPENING AND WELCOME	
SESSION Sun1 Biology - Chair: Leihan Tang (HKBU)		
9:00 - 9:45 Sun1-1	Quan Li (CUHK)	Cellular evolution of nanoparticles and its biomedical implications
9:45 - 10:15 Sun1-2	Yi Liu (USST)	Understanding conformation and dynamics of dendrimers for drug delivery applications
10:15 - 10:45 Sun1-3	Xinhua Lu (CAS)	Probe DNA-Cisplatin Interaction with a Solid-State Nanopore
10:45 - 11:15	BREAK	
SESSION Sun2 Energy - Chair: Xudong Xiao (CUHK)		
11:15 - 12:00 Sun2-1	Leo W.M. Lau (Chengdu Green Energy & Green Manufacturing Technology R&D Center)	Unconventional chemistry driven by hyperthermal collision
12:00 - 12:30 Sun2-2	Feng Ding (Poly U)	Edge-Dependent Growth Dynamics of Graphene via Chemical Vapor Deposition
12:30 - 13:00 Sun2-3	Bálint Aradi (Bremen U)	Possibility of a Field Effect Transistor Based on Dirac Particles in Semiconducting Anatase-TiO ₂ Nanowires
13:00 - 14:00	LUNCH (Renfrew Seafood Restaurant, 2/F David C. Lam Building, 34 Renfrew Road)	
SESSION Sun3 Environment - Chair: Christian Minot (Paris 6 & HKBU)		
14:00 - 14:45 Sun3-1	Christodoulos A. Floudas (Princeton U)	Discovery Approach for Shape Selective Separations and Catalysis: Zeolites and Metal Organic Frameworks
14:45 - 15:30 Sun3-2	Thomas Frauenheim (Bremen U)	The effect of band alignment, carrier self-trapping and vacancies on the photocatalytic properties of rutile-anatase mixtures
15:30 - 15:45 Sun3-3	Yi Gao (Shanghai, CAS)	Introduction of Gold Nanoclusters and Their Applications in Catalysis
15:45 - 16:00 Sun3-4	Yanling Zhao (HKBU)	Mechanism of Conductance Enhancement of Benthic Microbial Fuel Cell through π - π Stacking in Graphite/Polyaniline and Graphite/PCV Composites by Theoretical Studies
16:00 - 16:30	GROUP PHOTO TAKING and BREAK	
SESSION Sun4 Theory - Chair: Zhi Zeng (Hefei, CAS)		
16:30 - 17:15 Sun4-1	Shengbai Zhang (Rensselaer Polytechnic Institute)	Novel electronic states of two-dimensional layered structures
17:15 - 17:45 Sun4-2	Bálint Aradi (Bremen U)	Density Functional Tight Binding -- The Fast Way of Doing Quantum Mechanical Simulations

International Conference on Interdisciplinary Nanoscience for Energy, Life and Environment (INELE 2013)

WLB 104, Lam Woo International Conference Centre

17:45 - 18:30	POSTER PRESENTATION	
P1	Jie Han (Jilin U)	Adsorption of Uranium Dicarbide on Graphene with a Divacancy Defect
P2	Minsi Xin (Jilin U)	Effect of Defects on the Properties of Water Chains in SWCNTs
P3	Ruixia Song (Jilin U)	Anomalous stability of graphene containing defects covered by a water layer
P4	Yan Meng (Jilin U)	A study of quantum effects of chiral transition under confinements
P5	Xing Dai (Jilin U)	Adatom defect induced electronic states of endohedral metallofullerenes
P6	Yan-Ming Lin (Northwest U)	The optical absorption and hydrogen production by water splitting of (Si,Fe)-codoped anatase TiO ₂ photocatalyst
P7	Juncao Bian (City U)	Reproducible and Recyclable SERS Substrate: Ag Nanoflowers with Concave Surface by Electrodeposition
P8	Jainfu Li (City U)	New superhard carbon allotropes based on C ₂₀ fullerene
P9	Ji-Chang Ren (City U & USTC)	First-principles GGA+U study of the graphene with an extended defect
P10	Qi Wu (City U)	Boundary and Symmetry Determined Exciton Distribution in Two Dimensional Silicon Nanosheets
P11	X.H. Zha (City U & USTC)	Point defect weakened thermal contraction of a monolayer grapheme
P12	Chenyu Xiao (HKBU)	Microfluidic Integration of Plasmonic Applications for Highly Sensitive Bioanalysis

International Conference on Interdisciplinary Nanoscience for Energy, Life and Environment (INELE 2013)

WLB 104, Lam Woo International Conference Centre

Programme Schedule

December 16 (Monday)

8:15 - 8:45	REGISTRATION	
SESSION Mon1 Graphene - Chair: Guy Le Lay (U. Aix-Marseille)		
8:45 - 9:30 Mon1-1	Mei-Yin Chou (Academia Sinica)	Computational Studies of Two-Dimensional Materials: From Graphene to Few-Layer Graphene and Beyond
9:30 - 10:15 Mon1-2	Ning Wang (HKUST)	Disorder and resonant states in single layer graphene detected by quantum capacitance measurement
10:15 - 10:45 Mon1-3	Qian Wang (Peking U)	Graphene monoxide and dioxide: structures and properties
10:45 - 11:15	BREAK	
SESSION Mon2 Magnetism - Chair: Cheting Chan (HKUST)		
11:15 - 12:00 Mon2-1	Qiang Sun (Peking U)	Ferromagnetism in Monolayers
12:00 - 12:30 Mon2-2	Zhi Zeng (Hefei, CAS)	Manipulation of spin states in nanoscale devices
12:30 - 13:00 Mon2-3	Jinlan Wang (Southeast U)	Structure and Magnetic Properties of Sandwiched Metal-Organic Clusters and Infinite Molecular Wires
13:00 - 14:00	LUNCH (Renfrew Seafood Restaurant, 2/F David C. Lam Building, 34 Renfrew Road)	
SESSION Mon3 Energy - Chair: Shihe Yang (HKUST)		
14:00 - 14:45 Mon3-1	Xudong Xiao (CUHK)	Research and Commercialization of CIGS Solar Cells in China
14:45 - 15:30 Mon3-2	Lian-mao Peng (Peking U)	Carbon nanotube-based photovoltaic and light-emitting diodes
15:30 - 16:00 Mon3-3	Mingwen Zhao (Shandong U)	Theoretical design of novel carbon nanostructures: Structures, synthetic route and applications
16:00 - 16:30	BREAK	
SESSION Mon4 Graphene-like - Chair: Mei-Yin Chou (Academia Sinica)		
16:30 - 17:15 Mon4-1	Guy Le Lay (Aix-Marseille U)	Perspectives on Silicene, Graphene's Silicon Cousin
17:15 - 17:45 Mon4-2	X.D. Cui (HKU)	Spin-Valley coupling in atomically thin dichalcogenides
17:45 - 18:15 Mon4-3	Zhen Zhou (Nankai U)	Graphene-Like 2D Inorganic Materials: Computational Explorations
19:00 - 21:00	BANQUET at CityU	

International Conference on Interdisciplinary Nanoscience for Energy, Life and Environment (INELE 2013)

WLB 104, Lam Woo International Conference Centre

Programme Schedule

December 17 (Tuesday)

8:15 - 8:45	REGISTRATION	
SESSION Tue1 Energy - Chair: Michel A. Van Hove (HKBU)		
8:45 - 9:30 Tue1-1	Lin-Wang Wang (LBNL)	Ab initio calculations of charge transports in thousand atom nano systems
9:30 - 10:15 Tue1-2	Shihe Yang (HKUST)	Solution-processed quantum structures for new generation solar cells
10:15 - 10:45 Tue1-3	Jianxin Zhong (Xiangtan U)	Tuning the Surface and Quantum-Well States of Ultra-Thin Topological Insulator Films
10:45 - 11:15	BREAK	
SESSION Tue2 Environment - Chair: Thomas Frauenheim		
11:15 - 12:00 Tue2-1	Angelos Michaelides (UCL)	First principles simulations of water at interfaces: challenges and opportunities
12:00 - 12:30 Tue2-2	C.K. Siu (CityU)	Reactions of Carbon Dioxide Radical Anion in Nano-sized Water Clusters
12:30 - 13:00 Tue2-3	Chang Q. Sun (NTU)	Coordination-resolved spectroscopy of electronic binding energy
13:00 - 14:00	LUNCH (Renfrew Seafood Restaurant, 2/F David C. Lam Building, 34 Renfrew Road)	
SESSION Tue3 Nanostructure - Chair: Jun Xue Fu (HKBU)		
14:00 - 14:45 Tue3-1	Ian Robinson (UCL)	Structure of Nanoparticles
14:45 - 15:30 Tue3-2	Andrey L. Rogach (CityU)	Nanomaterial Architectures for Charge Separation and Transfer
15:30 - 16:00 Tue3-3	Zhi Feng Huang (HKBU)	Silver nanospirals: 3D chiral metamaterials
16:00 - 16:30	BREAK	
SESSION Tue4 Theory - Chair: Angelos Michaelides (UCL)		
16:30 - 17:15 Tue4-1	Zijing Lin (USTC)	Property models and multi-physics modeling of solid oxide fuel cell with nano-composite electrode
17:15 - 17:45 Tue4-2	Li-Min Liu (BCSRC)	The design of novel materials by <i>ab initio</i> calculations
17:45 - 18:30 Tue4-3	Weitao Yang (Duke University)	Fractional Perspectives of Density Functional Theory and Exchange-correlation Energies from Pairing Matrix Linear Response

International Conference on Interdisciplinary Nanoscience for Energy, Life and Environment (INELE 2013)

WLB 104, Lam Woo International Conference Centre

Programme Schedule

December 18 (Wednesday)

8:15 - 8:45	REGISTRATION	
SESSION Wed1 Biology - Chair: Jun Fan (CityU)		
8:45 - 9:30 Wed1-1	Dilano K. Saldin (UW Milwaukee)	Biology with X-Ray Lasers: Structure and Dynamics of Biomolecules and Viruses
9:30 - 10:15 Wed1-2	Aleksandra B. Djurišić (HKU)	Mechanisms of antibacterial activity of nanostructured metal oxide
10:15 - 10:45 Wed1-3	Zhibing Li (Sun Yat-sen U)	Photodriven propeller effect for micro-helicoids
10:45 - 11:15	BREAK	
SESSION Wed2 Energy - Chair: Leo W.M. Lau (Chengdu GE&GMT R&D Center)		
11:15 - 12:00 Wed2-1	S.Y. Tong (SUSTC)	Stabilizing the Polar Surfaces of ZnO
12:00 - 12:30 Wed2-2	Zexing Cao (Xiamen U)	Rational Design of Novel Dyes and Their Adsorbed TiO ₂ Systems for Solar Cells from First-Principles Calculations
12:30 - 13:00 Wed2-3	Zhenyi Jiang (Northwest U)	Improving optical absorption of TiO ₂ photoanode with the adsorption of benzoic acid molecule on TiO ₂ surfaces
13:00 - 14:00	LUNCH (Renfrew Seafood Restaurant, 2/F David C. Lam Building, 34 Renfrew Road)	
SESSION Wed3 Theory - Chair: Zijng Lin (USTC Hefei)		
14:00 - 14:45 Wed3-1	Christian Minot (Paris 6&HKBU)	Metal oxide reducibility in terms of oxygen vacancy formation
14:45 - 15:30 Wed3-2	Ching-Ming Wei (Academia Sinica)	Materials Simulations using QMC, GWA and BSE
15:30 - 16:00 Wed3-3	Ji Feng (Peking U)	Theoretical and <i>ab initio</i> studies of Dirac Fermions in two- and three-dimensional materials
16:00 - 16:30	BREAK	
SESSION Wed4 Theory & Experiment - Chair: Ching-Ming Wei (Academia Sinica)		
16:30 - 17:15 Wed4-1	Hai-Qing Lin (BCSRC Beijing)	Simulation of Optical Properties of Nanostructures
17:15 - 17:45 Wed4-2	Lixin Zhang (Nankai U)	Searching of Carbon based Pt Replacement Catalysts for Oxygen Reduction Reaction
17:45 - 18:30 Wed4-3	Jian-Bin Xu (CUHK)	Graphene Synthesis and Device Applications via Interface Engineering