SECOND INTERNATIONAL
Advanced Materials Science Networking (AMASING) Workshop

New materials, cleaner water

March 18th-23rd 2013
Da Nang, Vietnam
GENERAL CHAIR

Gianaurelio Cuniberti
Nguyen Minh Tan
Klaus Kühn
Mark H. Rümmeli

LOCAL CHAIR:

Tran Van Nam
Doan Quang Vinh
Le Quang Nam
Nguyen Van Hieu
Trinh Quang Thong
SPONSORS

We are very gratefully to our various sponsors for their support to the second international AMASING workshop in Da Nang. Our sponsors are:

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**SCHEDULE**

**Monday (March 18th 2013)**  
Location: Sandy Beach Hotel

*Opening with lectures*

10:30 – 13:00  
REGISTRATION

13:00 – 14:00  
LUNCH BUFFET

14:00 – 14:30  
WELCOME

**Prof. Dr. Gianaurelio Cuniberti**  
(Chair of Materials Science and Nanotechnology, Technical University of Dresden)

**Assoc. Prof. Dr. Tran Van Nam**  
(President of the Da Nang University)

**Session Chair:**  
Prof. Dr. Gianaurelio Cuniberti

*Opening speeches*

14:30 – 14:45  
**Dr. Nguyen Xuan Anh**  
(Vice Mayor of Danang City)

**Dr. Le Quang Nam**  
(Director of Department of Science and Technology of Danang City)

Representatives of Department of Planning and Investment of Danang City

14:45 – 15:00  
**Prof. Dr. Sci. Bui Van Ga**  
(Vice Minister of Ministry of Education and Training)

15:00 – 15:30  
**Assoc. Prof. Dr. Tran Van Nam**  
(President of the Da Nang University)

15:30 – 16:00  
COFFEE BREAK

16:00 – 16:30  
*Nanotechnology in Germany, a short overview*  
**Dr. Ralph Nonninger**

16:30 – 17:00  
*Synthetic Scent – a revolution in detection*  
**Dr. David Adebimpe**
Tuesday (March 19th 2013)
Location: Sandy Beach Hotel

Sensors

Session Chair: Dr. Mark Rümmeli

09:15 – 10:00  Nano-enabled chem, bio and radiation sensors
               Prof. Dr. Meyya Meyyapan

10:00 – 10:30  Environmental gas sensors: A new look at carbon nanotubes
               Dr. David Adebimpe

10:30 – 11:00  COFFEE BREAK

11:00 – 11:30  Si nanowire Biological Field Effect Transistors (BioFETs) using
               microfabrication technology
               Prof. Dr. Jeong-So Lee

11:30 – 12:00  Direct use of seawater for economic sanitation and low-energy sewage
               treatment
               Prof. Dr. Guang-Hao Chen

12:00 – 12:30  The Chirality Induced Spin Selectivity (CISS) effect: from spintronics to
               electron transfer in biology
               Prof. Dr. Ron Naaman

12:30 – 13:00  Silicon field-effect transistors for bio and chemical sensor platform and its
               application examples
               Dr. Kook-Nyung Lee

13:00 – 14:00  LUNCH BUFFET

14:00 – 14:30  Unimolecular Electronics
               Prof. Dr. Robert Metzger

14:30 – 15:00  Investigations of CuO-based nanocatalysts in oxidation of carbon
               monoxide and p-xylene
               Prof. Dr. Ho Si Thoang

15:00 – 15:30  Fabrication of UHF RFID sensor tag by inkjet printing for detecting of food
               quality
               Prof. Dr. Dang Mau Chien

15:30 – 16:00  COFFEE BREAK

16:00 – 16:30  Epitaxial organic thin films of large aromatic hydrocarbons - structure and
               physical properties
               Prof. Dr. Torsten Fritz

16:30 – 17:00  High-resolution friction force microscopy and applications to
               environmental issues
               Dr. Enrico Gnecco

17:00 – 17:30  Spin-dependent transport and intrinsic magnetism in graphene
               nanostructures
               Prof. Dr. Stefan Krompiewski
Wednesday (March 20\textsuperscript{th}, 2013)  
Location: Hoi An and Sandy Beach Hotel

**Culture**

09:00 – 17:30 VISIT TO HOI AN

18:00 BANQUET  
+ After dinner talk: surprise!
Thursday (March 21st, 2013)
Location: Sandy Beach Hotel and Da Nang University of Science and Technology

**Environment**

**Session Chair:** Dr. Nguyen Minh Tan

09:15 – 10:00  
*Applicability and costs of nanofiltration in dyehouse effluent treatment*  
*Prof. Dr. Wolfgang M. Samhaber*

10:00 – 10:30  
*Advanced oxidation processes for waste water treatment*  
*Dr. Klaus Kühn*

10:30 – 11:00  
**COFFEE BREAK**

11:00 – 11:30  
*Study on the synthesis and characterization of nano silver coated ZSM-5 zeolite for bacterial elimination*  
*Prof. Dr. Le Thi Hoai Nam*

11:30 – 12:00  
*Size and cluster dependence of graphene coated oxide nanoparticles on cell viability*  
*Dr. Alicja Bachmatiuk*

12:00 – 12:30  
*Carbon nanotubes and their potential as sorption materials for waste water treatment*  
*Dr. Daniela Placha*

12:30 – 13:00  
*Colloidal nanocrystals: material synthesis, shape control, characterization and biological application perspectives*  
*Dr. Marta Kruszynska*

13:00 – 14:00  
**LUNCH BUFFET**

14:00 – 15:00  
Transport to Da Nang University of Science and Technology

15:00 – 15:20  
*Green Alumni Group Germany (at Da Nang University of Science and Technology)*  
*Dr. Nguyen Minh Tan, INAPRO, HUST*

15:20 – 15:35  
*Synthesis of Hybrid Material Based on PSZ and POE for Antifouling in marine environment.*  
*Nguyen Thi Dieu Hang*

15:35 – 15:55  
*Study on the synthesis and characterization of nano silver coated ZSM-5 zeolite for bacterial elimination*  
*Tran Quang Vinh*

15:55 – 16:15  
*Waste Water Treatment by using gamma-GPA*  
*Le Phuoc Cuong*

16:15 – 16:45  
**COFFEE BREAK**

16:45 – 17:00  
?????  
*Nguyen Thi Thanh Xuan*

17:00 – 17:40  
"Building up an efficient and sustainable Alumni network on the research area of nanotechnology and environment"  
*Podium discussion*
**Environment**

**Session Chair:** Dr. Klaus Kühn

**09:15 – 10:00**  
*Can excitation energy transfer mechanism of cyanobacteria inspire a generation of more efficient organic solar cells?*

Prof. Dr. Martin Mkandawire

**10:00 – 10:30**  
*Polyaniline/Fe₃O₄ nanocomposites: preparation, properties and some applications*

Dr. Vu Quoc Trung

**10:30 – 11:00**  
COFFEE BREAK

**11:00 – 11:30**  
*Ab-initio simulations of copper-modified titania photocatalysts*

Dr. Nicola Seriani

**11:30 – 12:00**  
*DFT study of molecular adsorption on TiO₂. Applications to energy level alignment and electron transfer in dye-sensitized solar cells*

Prof. Dr. Mihai A. Gîrtu

**12:00 – 12:30**  
*Advanced hybrid nanomaterials as new disinfectant for environmental treatments: advances and prospects*

Dr. Le Anh Tuan

**12:30 – 13:00**  
*Studies on preparing Rice-Husk-Filled-polypropylene composites*

Doan Thi Thu Loan

**13:00 – 13:30**  
*Carbon nanotubes Field-Effect Transistor for rapid detection of DNA*

Prof. Dr. Nguyen Duc Chien

**13:30 – 14:15**  
LUNCH BUFFET

**14:15 – 15:00**  
Transport to Da Nang University of Science and Technology

**15:00 – 15:30**  
*Introduction of TU Dresden and the Alumni Programs at TU Dresden*

Maria Babekoff

Dr. Nguyen Minh Tan

Dr. Le Minh Duc

Dr. Doan Thi Thu Loan

**15:30 – 15:45**  
COFFEE BREAK

**16:00 – 17:00**  
Visit to the materials science laboratories at DUT
**Materials/Electronics**

**Session Chair:** Dr. Mark Rümmeli

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<th>Time</th>
<th>Presentation</th>
<th>Presenter</th>
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<td>09:30 – 10:00</td>
<td>A room temperature NH$_3$ gas sensor based on ZnO nanorods coated quartz crystal microbalance</td>
<td>Dr. Nguyen Van Quy</td>
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<td>10:00 – 10:30</td>
<td>Development of functional materials for bio-chemical sensors</td>
<td>Dr. Trinh Quang Thong</td>
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<td>10:30 – 11:00</td>
<td>COFFEE BREAK</td>
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<td>11:00 – 11:30</td>
<td>Clay/epoxy nanocomposite coating- fabricating, properties and ability for corrosion protection of mild steel</td>
<td>Dr. Le Minh Duc</td>
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<td>Carbon nanotubes field-effect transistor for rapid detection of DNA</td>
<td>Dr. Mai Anh Tuan</td>
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<td>12:00 – 12:30</td>
<td>On-chip growth and surface-functionalization for metal oxides nanowires sensors</td>
<td>Prof. Dr. Nguyen Van Hieu</td>
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<td>12:30 – 12:45</td>
<td>Closing remarks and announcement for AMASING 2014</td>
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