

NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by *Patience Iyuke*

Co-edited by *Neil Coville*

Introduction

The nano world just keeps on producing new science, technology, devices and artefacts. I am sure that you, like me, can hardly keep up with the developments. The SA nano-scene still appears very active and some of the articles reveal some of these new activities.

Last week I gave a talk on Nanotechnology to the Science Fiction Club in Johannesburg. In preparing for the talk I came to the realization that within 50 years the nano world has moved the boundaries of science fiction. Nano writing, electronic paper, nano machines, to name a few of the science fiction ideas from years gone by that are already here! One wonders what else will soon be 'routine' and not fiction!!

Neil Coville

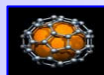
Contents

1. Introduction
2. Sessions on Nano at the SACI Convention
3. SACI 2010 Chemistry Awards - on Nano Topics
4. South Africa: Rhodes Student in Nano-tech Breakthrough
5. Microstructural Investigation of Polymer Nanocomposite
6. Nanotechnology Shift Interview
7. Stellenbosch University Scientists Patent Tea-bag-like Water Filter Based on Nanomaterials
8. The Eleventh International Conference on Frontiers of Polymers and Advanced Materials
9. National University of Singapore, Clear-bridge Set up Nanofiber Mesh Spinout
10. An Invitation to Unique Free Online Nano Events
11. List of Forthcoming Nanoscience and Nanotechnology Events

Sessions on Nano at the SACI Convention



Check the web page for information. There will be sessions specifically on nano at the event. The SACI Convention planning is now in full swing.



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by Patience Iyuke

Co-edited by Neil Coville

Abstract and registration forms can now be submitted. (www.saci2011.org.za) Note that there is a big differential in registration fees for SACI and non-SACI members. Encourage all to join and save money!! . This applies especially to post-graduate students.

DEADLINES

Abstracts due	31 August 2010 (ASAP)
Early bird registration	15 September 2010
Booking of accommodation	15 September 2010

Also: Check out the web pages on the **Organic section** of SACI2011 on the web. The RSC will be participating in this section of the conference by sending four keynote speakers to the event.

INORG2011: This is to be run in conjunction with the conference Check the web to see the programme.

Submitted by Neil Coville

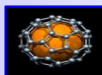
SACI 2010 Chemistry Awards- on Nano Topics

Earlier this year, the South African Chemical Institute presented two awards related to nanochemistry to an academic and a student at Wits.

The Merck Medal was awarded to Professor Neil Coville from the School of Chemistry for the best inorganic chemistry publication in the South African Journal of Chemistry, 2006-2009: The Effect of Synthesis Parameters on the Catalytic Synthesis of Multiwalled Carbon Nanotubes using Fe-Co/CaCO₃ Catalysts S.D. Mhlanga, K.C. Mondal, R. Carter, M.J. Witcomb and N.J. Coville, S. Afr. J. Chem., 2009, 62, 67–76.

A Sasol Post-Graduate Medal was given to Edward Nxumalo also from the School of Chemistry for research conducted towards a post-graduate degree (nominated and supported by fellow students). Thesis: Synthesis and Characterization of Nitrogen Doped Carbon Nanotubes Using Floating Catalyst Methods.

Submitted by Neil Coville



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by Patience Iyuke

Co-edited by Neil Coville

South Africa: Rhodes Student in Nano-tech Breakthrough



Rhodes University PhD chemistry student Samuel Chigome has made a major breakthrough by creating tiny fibre filters that would allow scientists to make nano-technology devices that separate unwanted substances from liquid samples. He managed this by using a fiber forming process called electrospinning, a technique that uses thousands of volts to turn 'big molecules', better known as polymers, into fibres that are 100 times smaller than the thickness

of a human hair.

The 31-year-old, Zimbabwean-born Chigome said his innovation of an electrospun fibre-based solid phase extraction device acts as a 'smart filter' that traps a substance selectively and can be used to extract chemical constituents like steroids, pesticides and heavy metals from liquids. "It is exciting to come out with such a breakthrough," Chigome told University World News. "There were times when I felt like giving up but my supervisor, Professor Nelson Torto, always encouraged me. He really motivated me," Chigome enthused about the research that bore fruit after only a year. He said the technology could be used in a wide range of areas interested in using polymer fibres for materials research. It could also be pertinent to areas such as water purification.

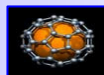
Chigome said one of the major concerns for the analysis of chemical constituents in an analytical chemistry laboratory was how to get the sample in a form that was suitable for accurate analysis with an analytical instrument. "In the analysis of liquid samples, for example, biological samples like urine and plasma, a common problem is the presence of unwanted substances that can interfere with the accurate determination of the chemical constituents of interest," he said.

The simple-looking device also has other merits. Besides greatly reducing the overall time of analysis, his fibre filter allows for very small sample volumes to be used. This is a plus for researchers who can reduce the usage of environmentally unfriendly organic liquids.

Chigome said that his research had produced a simple, cost-effective and robust approach that left room for modifications to suit specific needs.

The work was published recently in the Royal Society of Chemistry's Journal of Analytical Methods.

In June, Chigome was invited to United States to present his innovation at an international conference where it was well received. Another spin-off was an invitation for him to write a review article for a sister publication, The Analyst, and to submit artwork for the cover of the Journal of Analytical Methods. Buoyed by his



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by Patience Iyuke

Co-edited by Neil Coville

achievement, Chigome paid tribute to the university: "I think, is a good reflection of the quality of research and research training coming out of this remote university," he said.

By: Munyaradzi Makoni, University World News, 8 August 2010, Issue: 134
Submitted by: Robert Caveney, Wits Enterprise

Microstructural Investigation of Polymer Nanocomposite

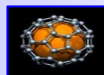
On the 22nd of July 2010, Prof Suprakas Sinha Ray from the DST/CSIR Nanotechnology Innovation Centre was hosted at Wits through the Material Physics Research Institute (MPR) and the Centre of Excellence in Strong Materials (CoESM). He delivered a seminar entitled "A New Possibility for Microstructural Investigation of Polymer Nanocomposite by Focused-Ion-Beam-Tomography". His presentation showed the Focused Ion Beam (FIB)-tomography as a high-resolution three-dimensional (3D) technique to study the morphology of polymer nanocomposites. To establish the structure-property relationship of such composite material, Prof Suprakas said that "it is very important to visualize the 3D-structure and distribution of nanoparticles in the polymer matrix". He explained that the sequential two-dimensional sectioning by FIB, followed by imaging of dispersed silicate layers using high-resolution scanning electron microscope, and computer reconstruction can show the degree of dispersion of nanoparticles in 3D-space.

Patience Iyuke and Prof. Suprakas Sinha Ray.

Nanotechnology Shift Interview

Two post graduate students from the University Johannesburg, Mr. Nsika Dlamini and Ms Lungile Thwala participated in SABC1 Educational Programme, a Live Broadcast interview called SHIFT, on the 4th of August 2010. The main aim of the interview was to engage and focus attention on Nanotechnology, through the skills and professional help of our South African scientists. To promote and increase awareness about Nanotechnology research activities and to make the learners, students and the public at large to appreciate reasons why South Africa is involved in Nanotechnology and thus assist in the Public Understanding of Science. Both students were excellent in sharing their Nanotechnology knowledge to the general public.

Contributed by: Joseph Taetsane, Moipone Academy.
Submitted by: Rui Kraus, UJ



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by Patience Iyuke

Co-edited by Neil Coville

Stellenbosch University Scientists Patent Tea-bag-like Water Filter based on Nanomaterials

A high-tech, low-cost disposable water filter that fits into the neck of a water bottle and delivers clean water as one drinks from it has been developed and should be commercialised in the next few months. Professor Eugene Cloete, microbiologist and Dean of the Faculty of Science at Stellenbosch University (SU), together with researchers from the Department of Microbiology and SU polymer scientists, recently patented the portable, easy-to-use and environment-friendly water filter bag, which looks like a tea bag.

The bag is filled with active carbon granules that remove harmful chemicals like endocrine disruptors. Cloete says that each “tea bag” filter can clean the most polluted water to the point where it is 100% safe to drink. Once used, the bag is thrown away, and a new one is inserted into the bottle neck.

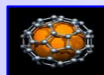
The sachet combines years of fundamental research on water purification, nanotechnology and food microbiology in a practical way. It aims to provide easy access to clean drinking water for vulnerable communities living near polluted water streams. There are also plans to commercialise the filter bag into a product that can be used by outdoor enthusiasts on hiking or camping trips.

As a past executive vice-president of global network of water professionals the International Water Association and a member of Coca-Cola’s global panel of water experts, Cloete believes water provision and sustainability go hand in hand. “The lack of adequate, safe and affordable water supplies impacts severely on vulnerable groups, such as the poor, the elderly, HIV patients and children,” he says.

A water security risk index of 165 nations, released by UK-based risk consultancy firm Maplecroft in June found that African and Asian nations had the most vulnerable water supplies, judged by factors such as availability of drinking water, demand per capita and dependence on rivers that flow through other countries. Cloete adds that more than 90% of all cholera cases are reported in Africa, and 300-million people on the continent do not have access to safe drinking water.

“The ‘tea bag’ filter can show the way forward, as it represents decentralised, point-of-use technology. “It can assist in meeting the needs of people who live or travel in remote areas, or people whose regular water supply is not treated to potable standards. “As it is impossible to build purification infrastructure at every polluted stream, we have to take the solution to the people,” he notes.

The invention has become one of the first significant projects of the recently established Stellenbosch University Water Institute, a transdisciplinary initiative established to intensify the search for lasting solutions to the country’s and the



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by Patience Iyuke

Co-edited by Neil Coville

continent's water challenges. Cloete, who also chairs the Water Institute, says he got the idea for the filter during an introductory visit to the SU's technology transfer company, InnovUS, 18 months ago.

"I was shown the electrospinning technique of spinning ultrathin fibres on a nanoscale, developed by polymer scientist Dr Eugene Smit, of the SU Department of Chemistry and Polymer Science. My mind immediately started churning up the possibilities of how it could be used to clean polluted water," he says.

A research team was put together and, after various trials and experiments, a filter sachet was developed that not only resembles a tea bag in shape and size, but is made of the same biodegradable material as off-the-shelf rooibos tea bags. The inside of the tea bag material is coated with a thin film of biocides encapsulated within minute nanofibres, which kill all disease-causing microbes.

"We tested the filter with water taken from a river in the Stellenbosch area. The samples were highly polluted with pathogens, but they came out completely clean on the other side," says postdoctoral fellow Dr Michéle de Kwaadsteniet, who is working on the project with Cloete and Professor Leon Dicks, of the Department of Microbiology.

Postdoctoral fellow in the Department of Microbiology and a member of the water filter bag research team Dr Marelize Botes says that it is exciting to be part of a potentially life-changing project. "It is such an easy-to-use and practical solution to something that's been a significant challenge for so long," she notes.

The 'tea bag' filter is currently being tested by the South African Bureau of Standards, after which the team hopes to roll it out to various communities.

The Stellenbosch University Water Institute and its 'tea bag' water filter form part of SU's Hope Project, a set of development goals aimed at improving the quality of life of people living in South Africa and on the rest of the continent.

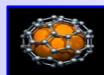
SU rector and vice chancellor Professor Russel Botman adds that the university believes that science should serve the needs of society. "By aligning the expertise of our scientists with the national and global development agenda, we want to become more relevant to society," he concludes.

Edited by: Creamer Media Reporter

Source: Engineering News -

Engineering News [newsdesk@engineeringnews.co.za]

<http://www.engineeringnews.co.za/article/stellenbosch-university-scientists-patent-tea-baglike-water-filter-2010-08-13>



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by *Patience Iyuke*

Co-edited by *Neil Coville*

Eleventh International Conference on Frontiers of Polymers and Advanced Materials

The eleventh International Conference on Frontiers of Polymers and Advanced Materials will be held at the University of Pretoria Conference Centre, Hatfield Campus, Pretoria, South Africa from the 22nd to the 27 May 2011

Objectives

The conference provides a unique scope involving a blend of science, technology and business.

It brings together leading international scientists, engineers, top-level industrial management and business executives for discussions on the status of advanced materials, new technologies and industrial and business opportunities.

The conference is truly multidisciplinary and global with participation of scientists, engineers, industrialists and business representatives.

The main Conference Objectives are:

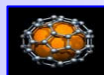
- To highlight advances and new findings in polymers and advanced materials and their impact on new technologies;
- To facilitate technology transfer and new business opportunities by bringing together representatives from academia, research centers, industries and business;
- To foster international collaborations and joint ventures;
- To cooperate with the formation of the new generations of scientific and professionals committed to the scientific-technological innovation in the region;
- To promote the growth of scientific and technical infrastructure in the field of polymers and advanced materials technologies.

Conference Theme

The International Union of Pure and Applied Chemistry (IUPAC) declared 2011 as the International Year of Chemistry. The then President of IUPAC stated: "The International Year of Chemistry will give a global boost to chemical science in which our life and future are grounded. We hope to increase the public appreciation and understanding of chemistry, increase young people's interest in science, and general enthusiasm for the creative future of chemistry" The 11th ICFPAM conference supports this call and will assist in promoting chemistry activities. Consequently the **conference theme** is to: *Celebrate the contribution of Chemistry as an enabling science for polymers and advance materials.*

CONFERENCE FORMAT

The conference will include general plenary talks, tutorials, invited lectures, contributed talks as well as poster sessions. An exhibition on polymers, advanced materials, equipment and recent applications is planned.



NANO NEWS - SOUTH AFRICA

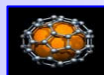
Volume 8, September 2010

Edited by Patience Iyuke

Co-edited by Neil Coville

PLANNED SESSIONS

- 1. General and tutorial lectures on New Materials and Advanced Technologies.**
The lectures will cover the main conference topics, emphasizing their impact on educational, scientific, technological and business trends.
Symposium Chair: **Prof K S Lee, Hannam University, Korea.**
- 2. Advanced Nano-scale and Nano-structured Materials: Glass and ceramics, magnetic and energetic materials, hybrid materials, exotic and super hard materials, dental materials.**
Symposium Chairs: **Prof J Mark, University of Cincinnati, OH, USA & Prof A Pawlicka, University of Sao Paulo at Sao Carlos, Brazil.**
- 3. Environmentally Friendly Materials: Natural fibre composites and polymer recycling.**
Symposium Chairs: **Prof R Kozlowski, Institute of Natural Fibres, Poznan, Poland, Dr M Rowell, USDA Forest Service, Madison, WI, USA & Dr MI Aranguren, National University of Mar del Plata, Argentina.**
- 4. Polymers and Advanced Materials in Electrochemistry and Solar Energy Conversion Systems.**
Conducting polymers, field effect transistors, light emitting devices; organic light detectors, polymer lasers; organic solar cells.
Symposium Chairs: **Prof A Pron, CEA – DSM, CEN Grenoble, France & Prof M Zagorska, Warsaw University of Technology, Warsaw, Poland.**
- 5. New Nanostructured and Hybrid Materials for Energy Storage.**
Symposium Chair: **Dr G Bidan, CEA Grenoble, France.**
- 6. Laser Processing & Photonics: Advanced materials and composites for photonics, nano- and biophotonics.**
Photorefractive polymers, nonlinear optical materials; materials for image and information processing, optical storage; polymer light amplifiers; liquid crystals and liquid crystalline polymers; materials for integrated optics.
Symposium Chair: **Prof C Khoo, Pennsylvania State University, University Park, PA, USA .**
- 7. Biomaterials and Biotechnology.**
Polymers and composites as implant in body for structural members and as replacements of flexible tissue in reconstructive surgery, bioimaging, nanomedicine drug delivery, bioMEMS, biofilms, tissue engineering.
Symposium Chair: **Prof I Rau, Politehnica University of Bucharest, Romania.**



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by *Patience Iyuke*

Co-edited by *Neil Coville*

8. **Fluoromaterials.**
Symposium Chair: **Prof P Crouse, University of Pretoria**

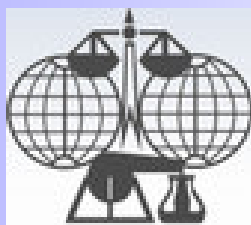
9. **Carbon-based Materials: Graphene, carbon nanotubes, diamonds and bulk graphites.**
Symposium Chair: **Prof B Rand, University of Pretoria.**

Important dates

Registration Opens	1 Sept 2010
Final Date for Submission of Abstracts	13 Nov 2010
Acceptance Notifications	31 Jan 2010
Submission of Extended Abstracts/Papers	25 Feb 2011
Closing Date for Early Bird Registration	25 Feb 2011
Final Date for Registration and Payment	22 April 2011
Opening Ceremony with Keynote Speakers	22 May 2011
Social Event	23 May 2011
Dinner and Dance Closing Ceremony	26 May 2011

Events Website: www.icfpam.co.za

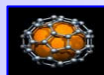
E-mail: conference@icfpam.co.za



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Denkielers • Leading Minds • Dikgopolo tsa Dihalefi



Submitted by: Prof Walter Focke
Conference Chair, University of Pretoria.



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by *Patience Iyuke*

Co-edited by *Neil Coville*

National University of Singapore, Clearbridge Set up Nanofiber Mesh Spinout

Clearbridge Accelerator and National University of Singapore (NUS) Enterprise have established Clearbridge Nanomedics, an NUS spinoff that is developing a nanofiber mesh with applications in the cosmetic and wound management industries. Clearbridge Accelerator is the Singapore incubation arm of Clearbridge Partners, a Hong Kong-based VC. NUS Enterprise has granted Clearbridge Nanomedics an exclusive worldwide license for the underlying technology, which was developed by Professor Lim Chwee Teck and colleagues from the division of bioengineering and department of mechanical engineering at NUS.

The nanofiber consists of a bioresorbable and biocompatible polymer with mechanical, physical, and chemical properties that make it suitable for a wide range of medical applications. The first product the company aims to develop is a pliable, time-release facial mask that features a high-surface contact area. The technology could be applied to extended-wear facial masks, anti-aging stickers, or eye patches. The nature of the nanofibers mesh allows the mask to conform more closely to the skin's surface and to encapsulate collagen or other skin-enhancing ingredients. Developing nanofibers with time-release properties also could allow the continuous delivery of compounds such as vitamins, sunscreen, or medication directly to the skin at an optimum rate or dosage. The company has identified distribution channels and is completing proof-of-concept testing on the technology.

Sources: *BioSpectrum*: <http://www.biospectrumasia.com/content/260710SGP13176.asp> and

TechTransfer: <http://www.technologytransfertactics.com/content/2010/07/28/national-university-of-singapore-clearbridge-set-up-nanofiber-mesh-spinout/>

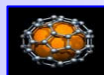
An Invitation to Unique Free Online Nano Events:

Webinars on Nanotechnology for a Knowledge Society in Emerging Economies and Developing Countries.

Latin America and Africa: Thursday 2nd September 2010 13.00-15.00 GMT (15.00-17.00 Continental European Summer Time)

Europe and Asia: Tuesday 7th September 2010 8.45-10.45 GMT (10.45-12.45 Continental European Summer Time)

Join the online debate on contributions nanotechnology may make to a knowledge society in developing countries and emerging economies from your own office with experts on Nanotechnology and Society in the Netherlands, Brazil, South Africa and



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by *Patience Iyuke*

Co-edited by *Neil Coville*

India. The webinars offer a platform for information exchange on good practices and proposals for international cooperation among governments of the Netherlands, the EU and International Cooperation Partner Countries of the EU (developing countries and emerging economies).

Speakers:

- Prof Dr Peter Nijkamp, President Committee Societal Dialogue Nanotechnology <http://www.nanopodium.nl/english/>
- Dr Malini Balakrishnan of TERI (project Capability, Governance and nanotechnology developments: a focus on India) <http://www.teriin.org/ResUpdate/nano.php>
- Prof Dr Arie Rip (University of Twente, Netherlands) <http://www.mb.utwente.nl/steps/people/adijoined/rip/>
- Prof Dr Malik Maaza, iThemba Labs, South Africa, coordinator NanoAfNet, <http://www.tlabs.ac.za/>
- Prof Dr Noela Invernizzi, University of Parana, Brazil, co-coordinator of ReLANS network <http://www.estudiosdeldesarrollo.net/~webrelans/inicio.html>
- Ineke Malsch (Malsch TechnoValuation, The Netherlands)

The webinars take place in the framework of the Nanorecht & Vrede project supported by Nanopodium www.nanopodium.nl and ICPC-NanoNet www.icpc-nanonet.org. The outcome of the workshop will be reported to the Dutch Commission for the Societal Dialogue on Nanotechnology who is currently organising a public dialogue on nanotechnology in the Netherlands.

Programme:

Session 1: Nanotechnology for a Knowledge Society in Latin America and Africa.

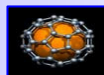
Thursday 2nd September 2010 13.00-15.00 GMT

13.00- 13.15 System Check, welcome participants, about Nanopodium / Nanorecht & Vrede and ICPC NanoNet .
Lesley Tobin, Ineke Malsch

13.15-13.30 About the Dutch Societal Dialogue on Nanotechnology (suggested)
Prof Dr Peter Nijkamp, President Committee Societal Dialogue Nanotechnology.

13.30-14.00 Nanotechnology for a Knowledge Society in Latin America (suggested)
Prof Dr Noela Invernizzi, University of Parana, Brazil, coordinator of ReLANS network.

14.00- 14.15 Discussion



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by Patience Iyuke

Co-edited by Neil Coville

14.15-14.45 Nanotechnology for a Knowledge Society in Africa (suggested)
Prof Dr Malik Maaza, iThemba Labs, South Africa, coordinator
NanoAfnet

14.45-15.00 Discussion and closure

Session 2: Nanotechnology for a Knowledge Society in Asia and Europe.

Tuesday 7th September 2010 8.45-10.45 GMT

08.45- 09.15 System Check, welcome participants, about Nanopodium / Nanorecht
& Vrede and ICPC NanoNet`
Lesley Tobin, Ineke Malsch

09.15-09.45 Nanotechnology for a Knowledge Society in India (suggested)
**Dr Malini Balakrishnan, TERI, India (project Capability,
Governance and nanotechnology developments: a focus on
India)**

09.45- 10.00 Discussion

10.00-10.30 Nanotechnology for a Knowledge Society in Europe (suggested)
Prof Dr Arie Rip (University of Twente, Netherlands)

10.30- 10.45 Discussion and closure

Relevant research centres/networks in ICPC countries

India: TERI <http://www.teriin.org/index.php>

Latin America: ReLANS, <http://www.estudiosdeldesarrollo.net/~webrelans/inicio.html>

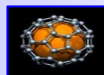
Africa: NanoAfnet <http://www.wcpsd.org/posters/environment/Maaza.pdf>

Project Nanorights and Peace is supported by Nanopodium

Nanopodium is an initiative of the independent Committee for the Societal Dialogue on Nanotechnology in the Netherlands (CMDN). Nanopodium is a platform for exchanging thoughts, ideas, opinions and best practices on nanotechnology. The aim is to stimulate a public dialogue about the opportunities and threats of nanotechnology and resulting applications with regard to individuals and society as a whole.

Nanopodium • Secretariaat Commissie Maatschappelijke Dialoog Nanotechnologie •
Herengracht 141, 1015 BH Amsterdam

T +31 (0)20 535 2241 • f +31 (0)20 428 9656 •
secretariaat@nanopodium.nl • www.nanopodium.nl



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by *Patience Iyuke*

Co-edited by *Neil Coville*

Webinar 2: Nanotechnology for Biomedical Applications

Tuesday 14th September: 09:00 GMT (11.00am CEST)

This webinar focuses on **Bio Nanosensors and Biomedical Devices**.

Topics to be presented and discussed include **Nanobiomaterials and Tissue Engineering, Nanotechnology for Drug Delivery and Nano-macro Porous Glass Bone-scaffolds**

Speakers:

- Prof. Vasif Hasirci, Biomaterials and Tissue Engineering Research Center, METU,
- Dr. Uracha Ruktanonchai, National Nanotechnology Center, NANOTEC Thailand
- Prof. Aboubaker Beye, Cheikh Anta Diop Université, Senegal; Vice Chairman NanoAfNet

How to register:

- Register for any or all workshops online at www.icpc-nanonet.org
- Maximum 40 participants per session, so register early.
- Workshop participants must be registered users of ICPC-Nanonet (www.icpc-nanonet.org). Registration is free.
- Language: English.
- Requirements: PC/laptop (not Macs) with broadband internet connection and headset or speakers.

Further information:

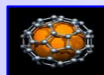
Nanotechnology for a Knowledge Society: Ineke Malsch, postbus@malsch.demon.nl

Bio Nanosensors and Biomedical Devices: Rachel Newton rachel.newton@spi.pt

About ICPC-Nanonet:

The ICPC-Nanonet project is funded by the European Union under FP7 for four years, from June 2008. It brings together partners from the EU, China, India, Russia and Africa and aims to provide wider access to published nanoscience research and opportunities for collaboration between scientists in the EU and International Cooperation Partner Countries.

For further information about the ICPC-Nanonet project contact the project coordinator Lesley Tobin, Lesley.tobin@nano.org.uk, visit the website at



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by Patience Iyuke

Co-edited by Neil Coville

www.icpc-nanonet.org or browse the free open-access nano publications archive at www.nanoarchive.org.

**Submitted by Lesley Tobin, Technology Analyst
ICPC-NanoNet Project Coordinator
Institute of Nanotechnology, UK**

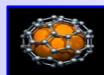
Forthcoming Nanoscience and Nanotechnology Events

Local Events

- i) Nanosciences Young Researchers Symposium, University of the Western Cape, Bellville, Western Cape, South Africa, 17th September 2010:
sani.studentchapter@gmail.com.
- ii) CATSA 2010, the annual Conference of the Catalysis Society of South Africa, Bloemfontein, Free State, 7th-10th November 2010:
<http://www.catsa.org.za/> or
<http://www.ufs.ac.za/apps/congress/index.php?FCODE=10>
- iii) South African Institute of Physics (SAIP) Annual Conference. The 55th Annual Conference of the SAIP, CSIR International Convention Centre, Pretoria, 27th-1st October 2010:
<http://www.saip.org.za/SAIPConferences.html>
- iv) An International Workshop on Advance Materials and Technologies for Global Energy and Environmental Challenges, CSIR, Pretoria, South Africa, 6th-9th December 2010. For more information, please contact Prof. Suprakas Sinha Ray, CSIR. E-mail: rsuprakas@csir.co.za:
Website: <http://www.csir.co.za>
- v) The 40th SACI Convention Incorporating the 3rd FASC Congress, University of Witwatersrand, Johannesburg, South Africa, 16th-21st January 2011
<http://www.saci2011.org.za/>
- vi) The Eleventh International Conference on Frontiers of Polymers and Advanced Materials, University of Pretoria Conference Centre, Hatfield Campus, Pretoria, South Africa, 22nd-27th May 2011: www.icfpam.co.za

International Events

- i) NANOTECHNOLOGY-PL, Plac Politechniki 1, Warsaw, 14th September 2010
<http://www.nanopaprika.eu/events/nanotechnologypl-1>



NANO NEWS - SOUTH AFRICA

Volume 8, September 2010

Edited by Patience Iyuke

Co-edited by Neil Coville

- ii) Nano-Energy Workshop 2010, Lehigh University - Iacocca Hall, 13th-14th September. For further information or to register, please visit www.lehigh.edu/nanoenergy or <http://www.nanopaprika.eu/profiles/blogs/nanoenergy-workshop-2010>
- iii) 1st Adriatic School on Nanoscience, Dubrovnik, 19th-23rd September 2010 <http://www.nanopaprika.eu/profiles/blogs/1st-adriatic-school-on> or <http://www.rathanea.hr/ason-1>
- iv) Seminar on Nanotechnology in Medicine and Biotechnology, Institution of Mechanical Engineers, 1 Birdcage Walk, London, United Kingdom, 5th October 2010 <http://events.imeche.org/EventView.aspx?EventID=772> or <http://www.imeche.org/events/S1504>
- v) International Nanotechnology Festival: IRAN/NANO 2010, Tehran, Iran, 25th-29th October 2010 <http://festival.nano.ir/> or http://festival.nano.ir/index.php/en_index/innerPage/19
- vi) Second Workshop on Modeling in Nanometrology, Sofia, Bulgaria, 29th-30th October <http://cluster.phys.uni-sofia.bg/cnm-ws2/>
- vii) LOC Nigerian Materials Congress 2010, Halls of Universal Hotel, Aguleri Street, Independence Layout, Enugu, 23rd-26th November, 2010. Tel: 0803 0736494/08034782762/08038820080 **E-Mail:** nimacon@ymail.com nimacon@msn.org.ng
- viii) 3rd Bangalore Nano, The Lalit Ashok, Bangalore, India, 8th-9th December 2010 <http://www.nanopaprika.eu/profiles/blogs/3rd-bangalore-nano>
- ix) 4th NanoTech Insights Conference, Cairo, Egypt, 27th February-2nd March 2011 <http://www.nanopaprika.eu/profiles/blogs/nanotech-insights-conference>
- x) Nano and Water 2010: Nanotechnology for the water Sector, Centro Stefano Franscini, Monte Verità, Ascona, Switzerland, 15th-18th May, 2011 <http://www.iwanano2011.org/> http://www.iwanano2011.org/IWA%20Nano_FirstCircular.pdf