

Introductory Course and Lecture Series on Secondary Ion Mass Spectrometry (SIMS)

Michael Wiedenbeck from the Deutsches GeoForschungsZentrum (Potsdam, Germany) will be conducting three 2-day courses in Cape Town, Port Elizabeth and Johannesburg and five 1-hour lectures in Cape Town, Port Elizabeth, Bloemfontein and Johannesburg. These courses and lectures will be hosted through AEON, as part of a GFZ-AEON initiative through, the German-South Africa collaborative earth and space systems programme Inkaba yeAfrica.

Through the GFZ-AEON initiative, AEON will be setting up a virtual SIMS laboratory in South Africa. This will be a unique facility as it will be the only virtual SIMS laboratory in the world. Positioning this facility in South Africa will mean that African scientists will have more exposure and easier access to the SIMS technique. The first step in creating the laboratory is to create awareness. Therefore, these introductory courses and lectures aim to achieve two outcomes. Firstly, to introduce students and researchers to the SIMS technique and secondly to identify future collaborations between African researchers and the Virtual SIMS Laboratory.

There are no registration fees to attend either the courses or lectures and they are open to anyone that is interested in the technique or would like to apply this technique to their research/work.

What is SIMS?

Ion microprobes, also known as secondary ion mass spectrometers (SIMS), use a finely focused ion beam to probe a selected sample domain. A small percentage of the material sputtered from the polished surface of the sample is ionized, and these ions are accelerated into a mass spectrometer where they are separated according to their mass-over-charge ratio. An important characteristic of SIMS is its high sensitivity compared to other microbeam sampling techniques: the ability to count individual ions results in detection limits in the parts-per-billion range for many elements. Also the fact that ions derived from the sample are separated by their mass-over-charge ratio means that isotopic analyses can be performed on very small sample volumes. For more information visit www.gfz-potsdam.de/sims.

2-Day Courses:

“Introduction to Secondary Ion Mass Spectrometry in the Earth and Material Sciences”

Cape Town:

iThemba Laboratories Auditorium
23-24 November 2011

Port Elizabeth:

Nelson Mandela Metropolitan University
28-29 November 2011

Johannesburg:

University of the Witwatersrand
5-6 December 2011

Lecture Series

“Secondary Ion Mass Spectrometry and the Characterization Geo- and Environmental Materials”

Cape Town

iThemba Laboratories Auditorium
24 November 2011 - 16:00

Port Elizabeth

Nelson Mandela Metropolitan University
29 November 2011 - 16:00

Bloemfontein

University of the Free State
2 December 2011 - 16:00

Johannesburg

University of the Witwatersrand
6 December 2011 - 16:00

Pretoria

University of Pretoria
8 December 2011 - 16:00

There are no registration fees for the courses or lectures.

Please complete the attached form to RSVP.

For more information, please email sims.series.2011@gmail.com or visit the Inkaba yeAfrica website (<http://www.inkaba.org>).

