

14th European Nanomechanical User Group Meeting
Wednesday, November 26th and Thursday November 27th 2014

Programme

- DAY 1** **Venue: LECTURE THEATRE of CIB Institute, CENIM**
- 14.15** **Registration & Coffee**
- 14:30** **Introduction and welcome – Paul Grasske**
- 14:35** **Nanomechanical and tribological testing of DLC coatings with the NanoTest**
Prof Ben Beake, Micro Materials Ltd
- 15:20** **Coffee**
- 15:35** **New features in the NanoTest**
Dr Mike Davies, Micro Materials Ltd
- 16:20** **Simulating single particle impact and erosive wear with the nano-impact test**
Prof Ben Beake, Micro Materials Ltd
- 17:05** **Return to hotel**
- 20.15** **Delegates meet at Reception of Hotel T3, Calle del Marques de Urquijo 4**
(nearest Metro: Arguelles)
to walk to restaurant (approx. 10 minutes)
La casa valenciana, Paseo del Pintor Rosales 58, 28008 Madrid
(nearest Metro: Arguelles)
- 20.30** **Arrival at restaurant**
Conference dinner in restaurant
- 22.30** **Return walk to hotel**

Thursday, November 27th 2014

- 09:15 Registration in CIB Lecture theatre, CENIM
- 09:45 Opening of conference by José-Luis González Carrasco, CENIM
- 10.00 Welcome by Paul Grasske, Micro Materials

Session 1

- 10:10 Indenter materials for high temperature nanoindentation
Dr Jeffrey Wheeler, EMPA
- 10:40 Micro structure and mechanical properties of PVD Cu/W and Zr/Nb nanoscale multilayers
Dr Miguel Monclús, IMDEA
- 11:00 Coffee and posters (30 minutes)

Session 2

- 11:30 Multiple-pass nano-scratch testing as a tool for abrasion simulation
Prof Ben Beake, Micro Materials Ltd
- 11:50 Advanced characterisation techniques for MAX phases and other novel coatings
Dr Vladimir Vishnyakov, University of Huddersfield
- 12:20 Biomedical applications of nanomechanics and tribology
Dr Richard Cook, University of Southampton
- 12.50 Lunch in CIB canteen (1 hr 30 minutes)

Session 3

- 14.20 Creep characterisation of the matrix of a metal matrix composite by using indentation techniques
Dr Ricardo Fernández, CENIM
- 14.50 Use of nanoindentation to study the properties of surface coatings
Joseph Reed, University of Cambridge

15.10 Coffee and posters (20 minutes)

Session 4

15.30 Nanomechanical measurements at National Centre for Nuclear Research: selected applications.
Prof Jacek Jagielski, ITME Warsaw

16.00 Nanoindentation study on carbon materials irradiated by GeV heavy ions
Christian Huber, GSI Helmholtz Centre for Heavy Ion Research

16.20 Concluding remarks

16.30 Conference ends

Posters:

Mechanical properties and structure of SiC_xN_y films after annealing in Ar and air at temperatures of 1100 - 1450°C

Radim Ctvrtlik, Palacky University Institute of Optics

Evaluation of materials properties by nanoindentation of thin and thick coatings for tribological application sand biological samples

Manual Evaristo, University of Coimbra

A critical assessment of a common method for obtaining the creep stress exponent from indentation data

James Campbell, University of Cambridge