**Symposium Programme**

**Tuesday, Aug. 30\textsuperscript{th}, 2005**

02:00 p.m.  SURFACE customer Meeting

06:00 p.m.  Welcome Reception

**Wednesday, Aug. 31\textsuperscript{st}, 2005**

09:00 a.m.  **OPENING**

***Bio-Applications***

09:10 a.m.  Nanoindentation of hard biological tissues including both bones and teeth  
            *Chwee Teck Lim* / Singapore / invited video conference

10:10 a.m.  Nano-Mechanical and Chemical Mapping of Incipient Carious Lesions in Human Dental Enamel Showing Effect of Fluoride Solutions  
            *Michelle E. Dickinson* / Hysitron

***Visco-elastic Materials***

10:35 a.m.  A study of the indentation size effect of different polymer types  
            *N. Zaafarani* / MPIE Duesseldorf

11:00 a.m.  coffee break

11:30 a.m.  Quantitative strain-rate testing of polymeric samples using static indentation test  
            *Simon Hayes* / University of Sheffield

11:55 a.m.  Nanoindentation Creep and Stress Relaxation Tests of Polycarbonate: Analysis of visco-elastic Properties by different Rheological Models  
            *K. I. Schiffmann* / FHG-IST Braunschweig

12:20 p.m.  Polycarbonate as Calibration Standard for Nanoindentation?  
            *D. Drechsler* / Bayer Leverkusen

12:45 p.m.  Nanoscale characterisation of Bitumen – Back analysis of viscoelastic properties  
            *Andreas Jaeger* / Vienna University of Technology

01:10 p.m.  Lunch

–02:10 p.m.

***Lateral Force Testing: Scratch, Tribology***

02:10 p.m.  Lateral Forces in nanoindentation: generation, measurement & application  
            *V. Linss* / ASMEC, Radeberg
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 02:35 p.m. | Comparing nanotribological and nanomechanical properties of different types of amorphous carbon and boron nitride thin films  
C. Charitidis / NT University of Athens |
| 3:00 p.m. | Possibilities of studying phase transformation upon micro- and nanoindentation by synchrotron radiation microdifraction  
G. Kaupp / University of Oldenburg |
| 03:25 p.m. – 04:30 p.m. | Poster Session & Coffee break  |
| 04:30 p.m. | Modelling of viscoelastic materials  
Yang-Tse Cheng / GM /invited video |
| 05:30 p.m. | Multiwall Carbon Nanotubes Based Composites – Mechanical Characterisation Using NanoIndentation Technique  
M. Olek / CAESAR Bonn |
| 05:55 p.m. | Mechanical Characterisation of Carbon / Metal Core/Shell Structures  
T. Staedler / University of Siegen |
| 06:20 p.m. | Nanoindentation investigations on structures from the micro- to the nanometer scale in composites before and after high pressure  
Thomas Schoeberl / Erich-Schmidt-Institute/Leoben |
| 07:30 p.m. | Shuttle to Conference Dinner  |

**Thursday, Sept. 1st, 2005**

***MEMS & Semiconductors***

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 09:00 a.m. | Mechanical Characterisation of Lead-free Solders in FCIP-devices  
M. Krause / FHG Halle |
| 09:25 a.m. | Characterisation of Packaging Materials on Nano, Micro and Macro Scales  
O. Wittler / IZM Berlin |
| 09:50 a.m. | The nanoindentation studies of stamp materials for nanoimprint lithography  
D. Denkiewicz / Warsaw University of Technology |
| 10:15 a.m. – 10:45 a.m. | coffee break  |
**Symposium Programme**

***Indentation Prozess***

10:45 a.m.  In-situ SEM observation of indentation process  
B. Moser / EMPA Thun

11:10 a.m.  Indentation size effect in metallic materials: Correcting for the size of the plastic zone  
B. Backes / University of Erlangen

11:45 a.m.  A critical examination of the two-slope method in nanoIndentation  
M. Troyon / University of Reims

12:10 p.m.  Indentation Behaviour of (011) thin films of I-V semiconductors, polarity effects and determination of the crystal friction  
L. Largeau / CNRS LPN / Marcoussis

12:35 p.m.  Lunch

-- 02:10 p.m.

***thin films***

02:10 p.m.  A new method for deconvoluting the nanoIndentation response of brittle coated systems by analysing the loading curves  
J. Chen / University of Newcastle Upon Tyne

02:35 p.m.  Investigation of SiO2 Thin Films Si-Substrates as Standards for Laseracoustic Measuring Devices  
D. A. Lucca / Oklahoma State University

03:00 p.m.  In-situ Electrochemical NanoIndentation of Ni  
A. Barnoush / University Saarbruecken

03:25 p.m.  Closing and Farewell

**Poster Session:** Sept. 8th, 2004, 3:05 p.m.

**Poster Format:** A0 Portrait (841 x 1189 mm)

1) Mechanical behaviour of polycrystalline nickel with grain size ranging from micro to nanoscale  
   B. Yang, H. Vehoff

2) Influence of the tip radius on the coefficient of friction in nanoscratch testing  
   Sebastien Lafaye, Michel Troyon

3) Measurement of the nanomechanical properties of DLC thin films deposited by PECVD and FAD Techniques  
   K. Małyska, A. Benadavid, H. Wrzesinska, Z. Rymuza

4) Silicon Polymeric Films for Working Surfaces of Microgrippers  
   N. Balabanava, Z. Rymuza, M. Zielecka, S. A. Chizhik