

Final program**Local Mechanical Properties, Telč, November 11-13, 2009**

ČVUT Teaching center in Telč, náměstí Zachariáše z Hradce 3, Telč

Wednesday 11st

11:00 - 17:40 Registration desk opened

14:30 - 14:40 **Conference opening****Prof. L. Pešek, doc. O. Bláhová, Dr. J. Němeček****Session 1: Identification of Material Parameters****Chairman: doc. O. Bláhová**

14:40 - 15:05 Prof. L. Pešek

keynote

LOCAL MECHANICAL PROPERTIES - WHAT IS THAT?

LADISLAV PEŠEK

15:05 - 15:30 Prof. Menčík

keynote

CHARACTERISATION OF VISCOELASTIC-PLASTIC PROPERTIES BY INSTRUMENTED INDENTATION

JAROSLAV MENČÍK

15:30 - 15:55 Dr. Němeček

keynote

ON THE EVALUATION OF ELASTIC PROPERTIES FROM NANOINDENTATION OF HETEROGENEOUS SYSTEMS

JIŘÍ NĚMEČEK, JAROSLAV LUKEŠ

15:55 - 16:30 **Coffee break****Session 2: Data Analysis****Chairman: Prof. L. Pešek**

16:30 - 16:55 RNDr. Lofaj

keynote

A COMPARATIVE STUDY OF THE NANOINDENTATION MEASUREMENTS ON THIN COATINGS

FRANTIŠEK LOFAJ, JIŘÍ NĚMEČEK AND OLGA BLÁHOVÁ

16:55 - 17:10 Dr. J. Nohava

regular

NEW GRID INDENTATION METHOD FOR MULTIPHASE MATERIALS

JIŘÍ NOHAVA, PETR HAUŠILD

17:10 - 17:25 Ing. J. Brumek

regular

GENETIC ALGORITHM USING FOR IDENTIFICATION OF NONLINEAR CONSTITUTIVE MATERIALS MODELS

JAN BRUMEK, BOHUMÍR STRNADEL, IVO DLOUHÝ

17:25 - 17:40 Dr. Dvořáková

regular

APPLICATION OF THE SURFACE ROUGHNESS SPECTRUM ANALYSIS AT DIAGNOSING FUNCTIONAL PERFORMANCE OF ARMAMENT COMPONENTS

RENATA DVOŘÁKOVÁ, EMIL SVOBODA, KAREL MAŇAS

18:30 - 19:30 **Dinner****Thursday 12st**

9:00 - 17:40 Registration desk opened

Session 3: Micromechanical Properties of Polymers**Chairman: Dr. J. Němeček**

9:15 - 9:40 Prof. Zamfirova

keynote

MICROINDENTATION STUDY OF ELECTRON BEAM IRRADIATED POLYAMIDE SAMPLES

GALINA ZAMFIROVA, V. GAYDAROV, T. ZAHARESCU, L.G. A. SILVA

9:40 - 9:55 Dr. Maszybrocka

regular

CHANGES OF MICROMECHANICAL PROPERTIES OF ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE AFTER ELECTRON BEAM IRRADIATION AND UNIAXIAL COMPRESSION

JOANNA MASZYBROCKA, JERZY CYBO, ADRIAN BARYLSKI

9:55 - 10:10 Dr. Zubko

regular

MECHANICAL PROPERTIES OF THERMOPLASTIC COMPOSITES

PAVOL ZUBKO, LADISLAV PEŠEK, IVANA ZAJACOVÁ

10:10 - 10:40 **Coffee break****Session 4: Micromechanical Properties of Coatings****Chairman: RNDr. F. Lofaj**

10:40 - 10:55 Dr. Houdková

regular

EVALUATION OF HV0F SPRAYED COATINGS MECHANICAL PROPERTIES BY THE INDENTATION CSM METOD

HOUDKOVÁ, Š., BLÁHOVÁ, O., ZAHÁLKA, F.

10:55 - 11:10 Dr. Sobota

regular

COULD HUMIDITY AFFECT THE MECHANICAL PROPERTIES OF CARBON-BASED COATINGS ?

JAROSLAV SOBOTA, JAN GROSSMAN, VILMA BURŠÍKOVÁ, JIŘÍ VYSKOČIL, RUDOLF NOVÁK, TOMÁŠ FOŘT, TOMÁŠ VITU, LIBOR DUPÁK

11:10 - 11:25 Dr. Smolenská

regular

EFFECT OF TEMPERATURE AND GASEOUS MEDIUM ON THE STRUCTURE AND MICROHARDNESS OF THE COBALT BASE CLAD LAYERS

HANNA SMOLENSKÁ

11:25 - 11:40 Ing. Joska

regular

LOCALLY MECHANICAL PROPERTIES OF DUPLEX SYSTEM ZrN COATING ON PLASMA NITRIDED X12 CrNi 18 8 STAINLESS STEEL

ZDENĚK JOSKA, MIROSLAV POSPÍCHAL, JAROMÍR KADLEC, JIŘÍ SUKÁČ

11:40 - 11:55 Dr. Kříž

regular

IMPACT TEST OF SURFACE

ANTONÍN KRÍŽ, PETR BENEŠ, JIŘÍ ŠIMEČEK

12:00 - 14:00 **Lunch****Session 5: Micromechanical Properties of Metals 1****Chairman: Dr. M. Garbiak**

14:00 - 14:25 Prof. Garbiak

keynote

APPLYING MICROHARDNESS TO MICROSTRUCTURE ANALYSIS

MALGORZATA GARBIAK

14:25 - 14:40 doc. Bláhová

regular

THE INFLUENCE OF PREDOXIDATION ON LOCAL MECHANICAL PROPERTIES OF ZR-ALLOYS

OLGA BLÁHOVÁ

14:40 - 14:55 Ing. Negyesi

regular

EXPERIMENTAL BACKGROUND FOR DIFFUSION MODELS OF Zr1%Nb-O SYSTEM

MARTIN NÉGYESI, OLGA BLÁHOVÁ, JAROSLAV BURDA AND VĚRA VRTÍLKOVÁ

14:55 - 15:10 Ing. Gavendová

regular

DETERMINING THE STRESS – STRAIN RELATIONSHIP BY DEPTH SENSING INDENTATION ON TWO CONSTRUCTION MATERIALS

PETRA GAVENDOVÁ, PAVOL ZUBKO, LADISLAV PEŠEK AND OLGA BLÁHOVÁ

Thursday 12st p.m.**15:10 - 16:00 Poster session and coffee break**Ing. Kašparová
Ing. Válová
Ing. ŘíhaADHESIVE-COHESIVE STRENGTH OF CR3C2-NICR HVOF SPRAYED COATINGS
CHARACTERISTIC OF DUPLEX COATING STEELS
MECHANICAL PROPERTIES AND STRUCTURE OF ZR-NB ALLOY AFTER HIGH-TEMPERATURE TRANSFORMATIONSM. KAŠPAROVÁ, Š. HOUDKOVÁ, F. ZAHÁLKA
VÁLOVÁ, M., SUCHÁNEK, J. BLÁHOVÁ, O.
JAN ŘÍHA, OLGA BLÁHOVÁ, PAVOL ŠUTTA

Ing. Dajbychová

THE INFLUENCE OF ADDITIVES ON MECHANICAL PROPERTIES OF ORGANIC-INORGANIC COATINGS

LENKA DAJBYCHOVÁ, OLGA BLÁHOVÁ, MILENA ŠPIRKOVÁ

Ing. Medlín
Dr. BoháčEVALUATION OF AU THIN FILM ON POLYETHYLENE, PET AND GLASS
POTENTIAL UTILISATIONS FOR NANOTESTERSROSTISLAV MEDLÍN, OLGA BLÁHOVÁ
PETR BOHÁČ, RADIM ČTVRTLÍK AND MARTIN STRANYANEK**Session 6: Presentation of Sponsors****Chairman: Dr. J. Němeček**

16:00 - 16:15 Ing. Černožorský

sponsor

PICOINDENTACE - MĚŘENÍ LOKÁLNÍCH MECHANICKÝCH VLASTNOSTÍ "IN SITU" VE SPOJENÍ S TEM A SEM (Firemní prezentace sponsora)

TOMÁŠ ČERNOHORSKÝ, UDE HANGEN, MARTIN MUNZAR

16:15 - 16:30 Ing. Jandík

sponsor

LAO. Firemní prezentace sponsora

Session 7: Micromechanical Properties of Metals 2**Chairman: Dr. P. Zubko**

16:30 - 16:45 doc. Mihalíková

regular

INFLUENCE OF THE SPEED DEFORMATION TO CHANGE OF LOCAL MECHANICAL PROPERTIES ON AUTOMOTIVE SHEET STEELS

MÁRIA MIHALIKOVÁ, ĽUBOMÍR AMBRIŠKO, LADISLAV PEŠEK

16:45 - 17:00 Ing. Volák

regular

TESTING OF SMALL LOCAL ZONES BY MEANS OF SMALL PUNCH TEST AT ROOM AND CREEP TEMPERATURES

JOSEF VOLÁK, VÁCLAV MENTL

17:00 - 17:15 Dr. Molnárová

regular

EVALUATION OF CARBON CONTENT IN AUSTENITE BY INDIRECT METHOD

MÁRIA MOLNÁROVÁ, TIBOR KVAČKAJ, RÓBERT KOČIŠKO,
LENKA NÉMETHOVÁ

17:15 - 17:30 Dr. Kočiško

regular

THE MECHANICAL PROPERTIES OF OFHC COPPER AFTER ECAP PROCESSING

KOŠIŠKO ROBERT, MOLNÁROVÁ MÁRIA, KOVAČOVÁ ANDREA,
KVAČKAJ MICHAL, BACSÓ JÜLIUS18:30 - **Gala dinner****Friday 13st****Session 8: Nanoindentation of Biomaterials****Chairman: Prof. J. Menčík**

9:15 - 9:30 Dr. Pfaff

regular

MECHANICAL TESTING OF BIOMEDICAL MATERIALS WITH A NANOINDENTER

HOLGER PFAFF

9:30 - 9:45 Dr. Pfaff

sponsor

H test. Firemní prezentace sponsora

9:45 - 10:00 Ing. Lukeš

regular

DYNAMIC NANOINDENTATION OF BOVINE INTERVERTEBRAL END PLATE

JAROSLAV LUKEŠ, JOSEF ŠEPITKA, JIŘÍ NĚMEČEK

10:00 - 10:15 Ing. Lukeš

regular

EFFECT OF TIME ON NANOINDENTATION ELASTIC MODULUS OF THREE DIFFERENT DENTAL RESTORATIVE COMPOSITES

RENATA EICHLEROVÁ, JAROSLAV LUKEŠ, SVATAVA
KONVIČKOVÁ, PAVEL BRADNA

10:15 - 10:30 doc. Severa

regular

NANOINDENTATION AS A NEW TOOL FOR EVALUATION OF HEN'S EGG SHELL LOCAL MECHANICAL PROPERTIES

LIBOR SEVERA , JAROSLAV BUCHAR, JIŘÍ NĚMEČEK AND
ŠÁRKA NEDOMOVÁ10:30 - 11:00 **Coffee break****Session 9: Damage, Fracture, Plasticity and Creep****Chairman: doc. Z. Keršner**

11:00 - 11:15 Dr. Veselý

regular

ESTIMATION OF FRACTURE PROCESS ZONE EXTENT IN CEMENTITIOUS COMPOSITES

VÁCLAV VESELÝ, ZBYNĚK KERŠNER, JIŘÍ NĚMEČEK, PETR
FRANTÍK, LADISLAV ŘOUIL, BARBARA KUCHARCZYKOVÁ
LIBOR HOLÁŇ, KAREL SLÁMEČKA, JAROSLAV POKLUĐA,
REINHARD PIPPAN

11:15 - 11:30 Ing. Slámečka

regular

3D TOPOLOGY OF FRACTURE SURFACES FORMED BY SHEAR-MODE FATIGUE IN AUSTENITIC STEEL

11:30 - 11:45 Dr. Buršíková

regular

STUDY OF NANOINDENTATION INDUCED POP-IN EFFECTS

VILMA BURŠÍKOVÁ , ANNA CAMPBELOVÁ, PETR Klapetek,
MIROSLAV VALTR AND JIŘÍ BURŠÍK

11:45 - 12:00 Ing. Ambriško

regular

DETERMINATION OF PLASTIC ZONE BY UCI TECHNIQUE ON THIN STEEL SHEETS

ĽUBOMÍR AMBRIŠKO AND LADISLAV PEŠEK

12:00 - 12:10 **Closing of the conference****Prof. L. Pešek, doc. O. Bláhová, Dr. J. Němeček**12:30 - 14:00 **Lunch**