

1st International conference on
POLYMER TRIBOLOGY



11th - 12th September 2014

Bled, Slovenia

Final programme

DAY 1 – 11th September 2014**9:00 - 13:00 REGISTRATION****SESSION I****13:00 - 13:10 OPENNING SPEECH****13:10 - 13:50 Prof. Dr. P. De Baets, Ghent University, Belgium – *invited lecture****Polymers in tribology: challenges and opportunities***13:50 - 14:30 Prof. Dr. S. Glavatskih, KTH Royal Institute of Technology, Sweden – *invited lecture****Polymers extend performance limits of hydrodynamic bearings***14:30 - 14:50 Dr. A. Pogačnik, Iskra Mehanizmi, Slovenia***Lifetime testing of polymer gears***14:50 - 15:10 J. Holmgren Lind, Uppsala University, Sweden***Effect of PTFE on the tribological behaviour of PPS with glass fiber***15:10 - 15:30 COFFEE BREAK****SESSION II****15:30 - 16:10 Dipl.-Wirtsch.-Ing. D. Merken, Erlangen University, Germany – *invited lecture***
*Friction and wear of thermoplastic polymers with respect to spur-gear applications***16:10 - 16:50 Dr. B. Wetzel, Institute for Composite Materials, Germany – *invited lecture***
*Advanced in situ measurements within sliding contacts***16:50 - 17:10 M. Zalaznik, University of Ljubljana, Slovenia**
*Improvement of tribological properties of PEEK with addition of MoS₂ particles***17:10 - 17:30 Dr. D. Japić, Podkrižnik d.o.o., Slovenia**
*The influence of expanded graphite and polydimethylsiloxane on mechanical and tribological properties of polyamide 6/glass fiber composites***20:00 - 23:00 CONFERENCE DINNER**

DAY 2 – 12th September 2014**SESSION III**

- 08:30 - 09:10 **Dr. S. Beermann, KissSoft, Switzerland – *invited lecture***
VDI 2736 – New Guideline, Old Challenges
- 09:10 - 09:50 **Prof. Dr. I. Emri, University of Ljubljana, Slovenia – *invited lecture***
Strain accumulation analysis as tool for predicting fatigue failure of polymeric products
- 09:50 - 10:10 **Prof. Dr. M. Remškar, Jožef Stefan Institute, Slovenia**
Multifuncional nanocomposite coatings
- 10:10 - 10:30 **Dr. J. Habimana, Multibase Dow Corning, France**
Using silicone masterbatch for controlling the friction coefficient of polyacetal gears

10:30 - 11:00 COFFEE BREAK**SESSION IV**

- 11:00 - 11:40 **Prof. Dr. M. Kalin, University of Ljubljana, Slovenia – *invited lecture***
Specifics in tribological investigation of polymers
- 11:40 - 12:00 **L. Roblek, Iskra Mehanizmi, Slovenia**
Precise injection moulding of polymer gears
- 12:00 - 12:20 **A. Oseli, Institute for Sustainable Innovative Technologies iSIT, Slovenia**
Methods for investigating pressure and temperature effects on mechanical properties of solid state polymers
- 12:20 - 12:40 **W. Molnar, AC²T, Austria**
Influence of setting angle of conveyor belt scrapers on abrasion and friction coefficient of rubber

12:40 - 14:00 CONFERENCE LUNCH**SESSION V**

- 14:00 - 14:20 **N. Lušina, SIBO group, Slovenia**
Implementation of medical component into clean room production
- 14:20 - 14:40 **M. Tomšič, Hennlich, Slovenia**
Lubrication free bearings
- 14:40 - 15:00 **Dr. G. Hlebanja, School of Technologies and Systems Novo Mesto, Slovenia**
S-gears made of polymers
- 15:00 - 15:20 **Dr. A. Pogačnik, University of Ljubljana, Slovenia**
Wear maps for PA, POM and steel material combinations
- 15:20 - 15:30 CLOSING SPEECH**

DAY I, 17:30 - 18:30 POSTER SESSION ***DAY II, 13:30 - 14:00**

- I. M. Zalaznik, M. Kalin – *Tribological properties of poly-ether-ether-ketone (PEEK) produced at different processing temperatures*
- II. J. Škofic, A. Pogačnik – *Measurement of transmission error on polymer gears*
- III. A. Pogačnik, M. Kalin – *Tribological characterization of plastic materials for gears*
- IV. F. Majdič et al. – *Research of cylinder seals in water and oil hydraulics*
- V. S. Huš et al. – *Biocomposite for construction parts with good tribological properties*

* Poster authors should be present at the posters during the official poster session hours. The posters will be displayed from 11:00 on the 11th of September 2014.

SPONSORS



EXHIBITORS



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