



Session information

Technical Session

Technical sessions » Advanced Tribology Material

Polymer 3

Sat. Sep 30, 2023 10:20 AM - 11:40 AM Room I (Room 413)

Hikaru Okubo, Sungha Kim

10:20 AM - 10:40 AM

[30-I-01] Molecular Dynamics Study of Conformations of Polyalkylmethacrylates in Oil and on Iron Oxide Surface

*Himanshu Shekhar¹, Yuma Chikazawa¹, Xingyu Chen¹, Hedong Zhang¹

(1. Department of Complex Systems Science, Graduate School of Informatics, Nagoya University, Japan)

Keywords: Molecular Dynamics, Polymer, Conformations, Adsorption, polyalkylmethacrylate

10:40 AM - 11:00 AM

[30-I-02] MoS₂ Reinforced PEEK Composite for Improved Aqueous Boundary Lubrication

*Xin Hou¹, Pengpeng Bai¹, Jingyang Li¹, Yonggang Meng¹, Yu Tian¹

(1. State Key Laboratory of Tribology in Advanced Equipment, Tsinghua University, China)

Keywords: polyether-etherketone composite, MoS₂, anti-wear performance, aqueous lubrication

11:00 AM - 11:20 AM

[30-I-03] Self-lubricating Polyimide Materials for Automotive Wear and Friction Applications

*Hau-Nan Lee¹, Ruth Jackowiak¹, Yasuaki Mashimo¹, Yuichi Maruyama¹, Takuya Miyauchi¹

(1. DuPont Specialty Products, USA)

Keywords: polyimide, Self-lubricating, automotive, Thrust washer, wear and friction

11:20 AM - 11:40 AM

[30-I-04] Friction and Wear of CF-filled PTFE in High-purity Hydrogen under Varying Trace Moisture Content

*Qian Chen¹, Yoshinori Sawae¹, Takehiro Morita¹, Joichi Sugimura¹

(1. Kyushu University, Japan)

Keywords: trace moisture, hydrogen, PTFE, carbon fibre