



## Session information

Technical Session

Technical sessions » Advanced Tribology Material

### Polymer 1

Fri. Sep 29, 2023 1:30 PM - 3:10 PM Room I (Room 413)

Yoshinori Takeichi, Sujeet K Sinha

1:30 PM - 1:50 PM

#### [29-I-06] Dual-beam Laser-based Processing of Tribological Polymer Coatings

\*Marius Dahmen<sup>1</sup>, Christian Vedder<sup>1</sup>, Adam El-Sarout<sup>1</sup>

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Keywords: Laser-based Processing, Polymer Coating, PEEK

1:50 PM - 2:10 PM

#### [29-I-07] Study on the Mechanism of Low Friction of Rubber with Fluorine Gas Treated Surface

\*Tomoaki Iwai<sup>1</sup>, Kaito Urasaki<sup>1</sup>, Yutaka Shoukaku<sup>1</sup>, Hiroyuki Kakiuchi<sup>2</sup>, Norifumi Hashitani<sup>2</sup>, Atsushi Eguchi<sup>2</sup>, Kazutaka Mori<sup>2</sup>

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Keywords: Fluorine gas, surface treatment, silicone rubber, FKM, friction

2:10 PM - 2:30 PM

#### [29-I-08] Processing Meets Tribology: How Different States of Cure Affect Friction and Wear Behaviour of Rubber Compounds

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Keywords: polymer, state of cure, tribology, Ring-on-Disc

2:30 PM - 2:50 PM

## [29-I-09] The Interaction of Two Amorphous Carbon Coatings (ta-C and a-C) on Polymer Substrates and the Consequences of the Tribological Contact Situation

\*Tanja Stiller<sup>1</sup>, Sanna Tervakangas<sup>2</sup>, Noora Manninen<sup>2</sup>, Olivier Jarry<sup>2</sup>, Janez Slapnik<sup>3</sup>, Borut Černe<sup>4</sup>, Florian Summer<sup>5</sup>, Florian Grün<sup>5</sup>, Andreas Hausberger<sup>1</sup>

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Keywords: polymers, amorphous carbon coatings, tribological system, friction, wear

2:50 PM - 3:10 PM

## [29-I-10] Friction and Wear Behavior of Epoxy Resin Treated Hemp Fiber Reinforced Plant-derived Polyamide 1010 Biomass Composites

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Keywords: Biomass Polymer Composites, Plant-Derived Polyamide, Natural Fiber, Surface Treatment of Fiber