INTERNATIONAL INSTITUTE FOR CARBON-NEUTRAL ENERGY RESEARCH

- ROLE OF HYDROGEN IN TRIBOLOGICAL PHENOMENA -

HYDROGENIUS AND I²CNER JOINT RESEARCH SYMPOSIUM

(I²CNER HYDROGEN MATERIALS COMPATIBILITY DIVISION
& HYDROGENIUS TRIBOLOGY TEAM)

DATE: FRIDAY, FEBRUARY 3, 2017
TIME: 9:50 AM~6:00 PM
VENUE: SHIIKI HALL, KYUSHU UNIVERSITY

Time	Speaker	Affiliation	Title
9:50 am - 10:00 am	Joichi Sugimura	Kyushu University	Opening Remarks
10:00 am – 12:00 pm Oral Session 1 Chairman: Yoshinori Sawae (Kyushu University, Japan)			
10:00 am - 10:25 am	Shinya Sasaki	Tokyo University of Science	Effect of lubricant additives on friction and wear of DLC films
10:25 am - 10:50 am	Koji Miyake	National Institute of Advanced Industrial Science and Technology	Nanostripe Surface Structures: Combination of Micro- and Nano-sized Surface Texturing for Improving Tribological Properties
10:50 am - 11:15 am	Naotoshi Shimizu	IHI Co. Ltd.	Friction and Wear of Polymer Composites in Hydrogen Environment at low temperature
11:15 am - 11:40 am	Kazuhito Yoshida	DENSO Co. Ltd.	Mechanism Analysis Technique for Future Fuel: Corrosive Wear of Stainless Steel in Methanol Blended Gasoline
11:40 am - 12:00 pm	Toru Izumi	JX Nippon Oil & Energy Corporation	Effect of Thicker Types and Additives on Grease Decomposition and Hydrogen Generation by Nascent Steel Surfaces
1:00 pm – 2:45 pm Oral Session 2 Chairman: Hiroyoshi Tanaka (Kyushu University, Japan)			
1:00 pm – 1:40 pm	Qunfeng Zeng	Xi'an Jiaotong University, China	Superlubricity of hydrogenated DLC films under high temperatures
1:40 pm – 2:20 pm	Monica Ratoi	University of Southampton, United Kingdom	Lubricant Environments and Rolling Contact Fatigue Performance

2:20 pm – 2:45 pm	Kanao Fukuda	Universiti Teknologi Malaysia, Malaysia	Influences of atmospheric humidity on adhesion of solid bodies in contact
3:00 pm – 4:20 pm Joint Symposium of Hydrogen Tribology Team and Hydrogen Polymers Team Chairman: Shin Nishimura (Kyushu University)			
3:00 pm – 3:40 pm	Kevin Simmons	Pacific Northwest National Laboratory	TBD
3:40 pm – 4:10 pm	Yoshinori Sawae	Kyushu University	Polymer Tribology in Hydrogen
4:10 pm – 4:20 pm	Joichi Sugimura	Kyushu University	Closing Remarks
4:30 pm – 6:00 pm Poster Session			
	Joshua Seetanah	University of Southampton, United Kingdom	The Effect of Lubricants Environments on Hydrogen Embrittlement
	Hiroshi Shiomi	Japan Aerospace Exploration Agency	A Study on an Axlai Seal System of High Pressure Liquid Hydrogen for Rocket Engine
	Yoshihiro Kurahashi	Kyushu University	Effects of Environmental Gas and Trace Water on Friction of DLC Slid with Metals
	Keisuke Manabe	Kyushu University	Formation of surface film and hydrogen permeation under rolling/sliding contact
	Vlad Bogdan Niste	Kyushu University	Preventing hydrogen permeation into bearing steel by using lubricant additives
	Prabakaran Saravanan	Kyushu University	Frictional Behavior of (PEI/GO)n solid lubricant coatings on steel substrates in various environments
	Hiroyoshi Tanaka	Kyushu University	Observation of DLC/metal Tribointerface in Various Gas Environments with Photo Emission Electron Microscopy
	Ryo Kamiya	Kyushu University	Analysis of surface roughness and sealing capability of polymer composites for hydrogen gas seals
	Joichi Sugimura	Kyushu University	Friction and Surface Damages of Rubbers under Reciprocal Tangential Loading in Hydrogen
	Yoshinori Sawae	Kyushu University	Self-forming carbon film lubrication for carbon fibre filled PTFE in high purity hydrogen gas environment

	Yuta Abe	Kyushu University	Effects of trace moisture content on friction and wear of carbon fiber filled PTFE in Hydrogen
	Takehiro Morita	Kyushu University	The influence of the contact surface geometry on hydrogen gas sealing ability of PEEK-based polymer seal
	Yuta Abe	Kyushu University	Carbon film formation on the surface of carbon fiber filled PTFE during sliding in High-purity Hydrogen