

Wednesday, January 24, 2024 – Conference Program					
P2 - Plenary Session, room 1					
09:00	Dynamic Properties of Lubricants for Electric Vehicles <i>Prof. Dr. Hong Liang, Texas A&M University, USA</i>				
09:30	E-Fuels and Tribology <i>Lars Hummel, eFuel Alliance e.V., GER</i>				
10:00	cancelled				
10:30	Coffee Break / Exhibition				
	D1 - New Trends in Lubricants and Additives <i>Dr. Martin Dienwiebel</i> room 1	D2 - Sustainability and Resource Efficiency <i>Dr. Markus Matzke</i> room 2	D3 - Computational Methods and Digital Transformation in Tribology <i>Prof. Carsten Gachot</i> room 3	D4 - Coatings, Surface Interactions and Underlying Mechanisms <i>Dr. George Dodos</i> room 4	D5 - Test and Measurement Methodologies <i>Dr. Markus Grebe</i> room 5
11:00	Formulating Next Generation Multi-Metal Wire Drawing Fluids with Multifunctional Amino Alcohols <i>Denis Buffière, ANGUS Chemical Company, FRA</i>	How Oil Care Can Reduce Oil and Maintenance Costs <i>Steffen Dalsgaard Nyman, C.C.JENSEN & Noria Partner, DNK</i>	Towards the Prediction of Lubricated Contacts by Machine Learning <i>Max Marian, Universidad Católica de Chile, CHL</i>	The Effects of the Lubricant Properties and Surface Finish Characteristics on the Tribology of High-Speed Gears for EV Transmissions <i>Prof. Dr. Boris Zhmud, Tribonex AB, GBR</i>	Go Greener by In-Situ Characterization of Lubricants for Cold Rolling – Droplet Size Distribution and Physical Separation /Emulsion Stability <i>Dr. Arnold Uhl, LUM GmbH, GER</i>
11:30	Biobased Ionic Liquid for Conductive Lubricants <i>Dr. Pieter Struelens, Oleon NV, BEL</i>	Using Molecular Modelling to Anticipate Future Toxicity Classifications of Anti-Oxidants and Identify Safer Structures <i>Siegfried Lucazeau, NYCO, FRA</i>	Detection of Critical Operation in Porous Journal Bearings Using Machine Learning <i>Dr. Markus Varga, AC2T research GmbH, AUT</i>	Effects of Calcium Detergents on Micro-pitting of Gear Metals <i>Akira Tada, Technical University of Berlin, GER</i>	Investigation of Functional Lubricity of Water-Based MWFs by an Innovative Tool <i>Dr. Ameneh Schneider, Optimol Instruments, GER</i>
12:00	Introducing a New, High-Performance Water-Based Rust Preventive Additive for Formulations Demanding Superior Metal Parts Protection in Severe Corrosion Conditions <i>James Grabarz, King Industries, Inc., USA</i>	Tribology Contribution to Sustainability and Energy Efficiency <i>Dr. Amaya Igartua, Fundación TEKNIKER, ESP</i>	Application of Machine Learning for Tribological Performance Prediction of Newly Lubricant Formulation <i>Dr. Wahyu Wijanarko, NTNU, NOR</i>	Friction Reducing Effect of Lubricants Applied to Organic Fibres <i>Dr. Igor Velkavrh, V-Research GmbH, AUT</i>	Tribological Testing for the Assessment of Friction and Metal Transfer in Sliding Contacts Between Cemented Carbide and Aluminum During Metal Forming <i>Dr. Núria Cinca, Hyperion Materials and Technologies, ESP</i>
12:30	Lunch Break / Exhibition				
	E1 - New Trends in Lubricants and Additives <i>Dr. Klaus Terveen</i> room 1	E2 - Sustainability and Resource Efficiency <i>Dr. Markus Matzke</i> room 2	E3 - Computational Methods and Digital Transformation in Tribology <i>Dr. Arshia Fatemi</i> room 3	E4 - Coatings, Surface Interactions and Underlying Mechanisms <i>Dr. George Dodos</i> room 4	E5 - Test and Measurement Methodologies <i>Rüdiger Krethe</i> room 5
14:00	Production of High VI Base Oils from Full Conversion Hydrocracker Residue with Solvent Refining Method <i>Prof. Dimitrios Karonis, National Technical University of Athens, GRC</i>	Oxidation Effects on the Rheology and Tribology of Sustainable Lubricants for Electromechanical Drive Systems <i>Didem Cansu Güney, Hochschule Aalen, GER</i>	Per Aspera ad Astra – Design of Friction Reducing Star Polymers from Computer Simulation to Lubricant Application. <i>Lars Kruse, Fraunhofer IWM - MikroTribologie Centrum µTC, GER</i>	Lubricant Inerting – a New Era in Lubrication Technology <i>Prof. Dr. Hugh Spikes, Imperial College of London, GBR</i>	Analysis of Tribo-Films in Industrial Applications <i>Joerg W.H. Franke, Schaeffler Technologies AG & Co.KG, GER</i>
14:30	Base Oil Solvency and High Temperature Deposit Formation in Engine Oils - a Model Study <i>Prof. Dr. Thomas Norrby, Nynas AB, SWE</i>	Biolubricants as Metal-Working Fluids: More than an Environmental-Friendly Choice <i>Marco Bellini, Bellini SpA, ITA</i>	Computational Modeling of Tribological Systems: Insights into Grinding Processes, Materials Tribology, and Tribofilm Formation through Molecular Dynamics <i>Dr. Stefan Eder, TU Wien, AUT</i>	Tribological Behaviour of Polymer Compounds containing Microencapsulated Lubricants <i>Susanne Beyer-Faiß, Dr. Tillwich GmbH Werner Stehr, GER</i>	Detection of Wear in Modern Naval Engine Components <i>PhD Theodora Tyrovola, National Technical University of Athens, GRC</i>
15:00	An Investigation of Using Ultra-Low Viscous Naphthenic Oil in Lubes and Greases <i>Dr. Jinxia Li, Nynas AB, SWE</i>	Potential and Performance of Pure Water Lubrication in Gearboxes <i>Dr. Andreas Nevosad, AC2T research GmbH, AUT</i>	Tribochemical Reactions in the Degradation Process of Iron Nitride with Rective Molecular Dynamics Simulation <i>Mizuho Yokoi, Tohoku University, JPN</i>	Early Stages of Tribo-Oxidation in Single Crystalline Copper <i>Ines Kisch, Karlsruhe Institute of Technology, GER</i>	Unveiling the Butterfly Effect in Tribology: The Impact of Surface Profile and Misalignment <i>Yulong Li, Karlsruhe Institute of Technology, GER</i>
15:30	Coffee Break / Exhibition				
	F1 - New Trends in Lubricants and Additives <i>Siegfried Lucazeau</i> room 1	F2 - Sustainability and Resource Efficiency <i>Dr. Markus Matzke</i> room 2	F3 - Computational Methods and Digital Transformation in Tribology <i>Dr. Stefan Eder</i> room 3	F4 - Coatings, Surface Interactions and Underlying Mechanisms <i>Dr. Max Marian</i> room 4	F5 - Test and Measurement Methodologies <i>Dr. Markus Grebe</i> room 5
16:00	Reversibly Tunable Viscosity of PAG and its Application in Sheet Metal Forming <i>Dr. Dominic Linsler, Fraunhofer IWM, GER</i>	A Life Cycle Assessment (LCA) to Analyze the Green House Gas (GHG) Emissions for Estolides Produced from Castor Oil <i>Dr. Matthew Kriech, Biosynthetic Technologies, USA</i>	Towards a Continuum Description of Mineral Oil Lubrication in Highly Pressurized Nanometer wide Constrictions: the Importance of Accurate Slip Laws <i>Prof. Dr. Michael Moseler, Fraunhofer IWM, GER</i>	Effect of Atmospheric Composition on the Friction and Wear of Cobalt-Based Alloys at Elevated Temperatures <i>Tobias König, Fraunhofer Institute for Mechanics of Materials IWM, GER</i>	Soft and Highly Sensitive Contact Pressure Sensors Based on Randomly Rough Surfaces <i>PhD Luciana Algieri, Istituto Italiano di Tecnologia, ITA</i>
16:30	Surfactant Systems with Improved Lubricity for Water Miscible Cooling Lubricants <i>Ludger Bösing, Sasol Germany GmbH, GER</i>	Sustainability Assessment of Polyol Esters – A Comparative LCA Analysis of Bio-Based vs. Fossil-Based Product <i>Verena Koch, Peter Greven GmbH & Co. KG, GER</i>	Tribochemical Properties of Glycerol as a Green Lubricant on Ferrous Substrates: Atomic-Scale Study by Reactive Molecular Dynamics Simulation <i>Dr. Vahid Fadaei Naeini, Luleå Tekniska Universitet, SWE</i>	Thermal-Elasto-Plastic Hydrodynamic Contact Between Rough Surfaces <i>Pedro Romio, Universidade do Porto, Faculdade de Engenharia, PRT</i>	The Importance of Inoculum for Biodegradation Testing of Lubricants <i>Dr. Peter Lohmann, Hermann Bantleon GmbH, GER</i>
17:00	SAPS-free Bio-based Additives for Lubrication in Next-generation Vehicles <i>PhD Xi He, Syensqo, USA</i>	How can Esters Improve the Sustainability of Both Intrinsic and Extrinsic Factors? <i>Gemma Stephenson, Cargill, GBR</i>	Effect of Polar Additives on the Slip and Bulk Shear of Hydrocarbon Oils <i>Seyedmajid Mehrnia, Institut für Fluidsystemtechnik, TU Darmstadt, GER</i>	Optimisation of EV Transmission Efficiency Using a Tribological Model <i>Amir Kadiric, Imperial College of London, GBR</i>	Soft Contact Electroadhesion for Controlling Tactile Perception Through Active Friction Modulation <i>PhD Luigi Portaluri, Università del Salento, ITA</i>
17:30	Short Break				
18:00	Evening Reception – Kubino				