

GS1: General Session

November 18, 2024

CON-1

- GS1-1 **Investigation of the Improvement of Thermo-Hydraulic Performance by Applying Spherical Dimples In Different Spacing Configurations**
13:10-13:25 Furkan Yıldırım (İstanbul Gedik University, Turkey), Mehmet Gürdal (Kastamonu University, Turkey)
- GS1-2 **Elastocaloric Solid-State Refrigeration Device: Design of Single Stage System Using Natural Rubber for Near Room Temperature Cooling and Analytical Modelling**
13:25-13:40 Marianne Sion (ELyTMax IRL 3757, CNRS, Univ. Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Japan / Université Claude Bernard Lyon 1, France / Tohoku University, Japan), Atsuki Komiya (ELyTMax IRL 3757, CNRS, Univ. Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University / Tohoku University, Japan), Gildas Coativy (INSA Lyon, France), Gaël Sebald (ELyTMax IRL 3757, CNRS, Univ. Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Japan), Shihe Xin (Université Claude Bernard Lyon 1, France)
- GS1-3 **Examining the Effect of Encapsulated PCMs with Different Features on Battery Thermal Management System**
13:40-13:55 Bilal Kursuncu, Abid Ustaoglu (Bartın University, Turkey / Tohoku University, Japan), Junnosuke Okajima (Tohoku University, Japan), Ferhat Yıldız (Bartın University, Turkey)
- GS1-4 **Effect of Different Encapsulated PCM Geometries on Battery Thermal Management System**
13:55-14:10 Bilal Kursuncu, Abid Ustaoglu (Bartın University, Turkey / Tohoku University, Japan), Junnosuke Okajima (Tohoku University, Japan)
- GS1-5 **The Kinetics of Coacervate Formation Based on Elastin-like Polypeptides with Varying Hydrophobicity Using Coarse-Grained Molecular Dynamics**
14:10-14:25 Haruto Takegahara, Kenichi Funamoto, Takuya Mabuchi (Tohoku University, Japan)
- GS1-6 **A Handheld-Type Combustion-Driven Needle-Free Liquid Jet Injector Design for Drug Delivery**
14:50-15:05 Jad Sadek, Rocco Portaro, Hoi Dick Ng (Concordia University, Canada)
- GS1-7 **Efficient Method for Ablation State Identification of Charring Ablators**
15:05-15:20 Yuhang Yin, Hongli Ji, Chongcong Tao, Chao Zhang, Jinhao Qiu (Nanjing University of Aeronautics and Astronautics, China)
- GS1-8 **Numerical Investigation of Three-Dimensional Shock Structure in Free-Flying Ring Intake Flowfield**
15:20-15:35 Kohei Omiya, Aoi Shibakita, Hideaki Ogawa (Kyushu University, Japan), Kiyonobu Ohtani (Tohoku University, Japan)

- GS1-9 **Jet Features of Explosive Volcanic Eruptions based on Shock Tube Experiments**
15:35-15:50 Nils Steinau, Kae Tsunematsu (Yamagata University, Japan), Kiyonobu Ohtani (Tohoku University, Japan), Kazuya Seo, Akuto Kaneko (Kogakuin University, Japan), Toshihiro Ogawa (Tohoku University, Japan)
- GS1-10 **Understanding the Role of Fluids in the Nucleation Process of the Noto, Japan, 2024, Mw 7.5 Earthquake**
15:50-16:05 Cornelius Langenbruch (Freie Universität Berlin, Germany), Yusuke Mukuhira, Keisuke Yoshida, Masaoki Uno (Tohoku University, Japan)

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EX-3-A

- GS1-11 **Effects of Phase Differences Between Oscillating Foil and Periodic Flow on Thrust and Lift Coefficients**
14:50-15:05 Masayoshi Sagawa, Yoshitaka Isoda, Yohsuke Tanaka (Kyoto Institute of Technology, Japan)
- GS1-12 **Flow Separation Control over Cetacean-inspired and Bird/Insect Wing-inspired Airfoils DU 06 W 200**
15:05-15:20 Anthony Xavier Andrade (National Taipei University of Technology, Taiwan), Omid Ali Zargar (National Chin-Yi University of Technology, Taiwan), Shih-Cheng Hu, Tee Lin (National Taipei University of Technology, Taiwan)
- GS1-13 **Flow Separation Control over Shark Skin-inspired and Hybrid Blade Airfoils DU 06 W 200**
15:20-15:35 Omid Ali Zargar (National Chin-Yi University of Technology, Taiwan), Anthony Xavier Andrade, Shih-Cheng Hu, Tee Lin (National Taipei University of Technology, Taiwan)
- GS1-14 **Investigation of Ultrasonic-Driven Pulsating Supersonic Jet for High-Speed Flow Control**
15:35-15:50 Kiiru Adachi, Hikari Furukawa, Katsushi Furutani, Taro Handa (Toyota Technological Institute, Japan)
- GS1-15 **Flow Dynamics of Oscillatory Flow Across a Porous Structure: An Overview**
15:50-16:05 Fatimah Al Zahrah Mohd Saat, Mohd Idain Fahmy Rosley, Fadhilah Shikh Anuar (Universiti Teknikal Malaysia Melaka, Malaysia)
- GS1-16 **Wake Structure Interactions in a Channel Flow of Shear-thinning Fluids around Porous Cylinders**
16:30-16:45 Saqib Jamshed, Naveen Tiwari (IIT Kanpur, India), Amit Dhiman (IIT Roorkee, India)
- GS1-17 **Dynamics of an Inverted Flag in an Oscillatory Flow**
16:45-17:00 Jiantao Zhang, Takashi Nakamura (Tokyo Institute of Technology, Japan)
- GS1-18 **Experimental Study on Active Control of Subsonic Compressible Boundary-Layer Flow Using High-Frequency Flapping Jet**
17:00-17:15 Kazuma Ikeuchi, Akira Urita, Taro Handa (Toyota Technological Institute, Japan)

- GS1-19 **Analysis of the Atomization Process in a Swirl Injector Using VOF to**
17:15-17:30 **Lagrangian Method**
 Kuan-Lin Li, Chien-Chou Tseng, Po-Yu Tsai (National Cheng Kung University,
Taiwan)
- GS1-20 **Computational Studies for Air Intake and Plasma Generation Process in Air-**
17:30-17:45 **breathing Electric Propulsion System**
 Koki Ito, Masayuki Takahashi (Tohoku University, Japan)