

OS29: IFS Lyon Center Collaborative Research Forum

November 12, 2025

EX-1

- OS29-1
15:15-16:05 **Comparative Analysis of Ferroelectric and Ferromagnetic Barkhausen Noise for Mechanical Stress Evaluation** (*Invited*)
Benjamin Ducharne (ELyTMax IRL3757, CNRS, Univ Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Japan / INSA Lyon, France), Gael Sebald (ELyTMax IRL3757, CNRS, Univ Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Japan), Tetsuya Uchimoto (ELyTMax IRL3757, CNRS, Univ Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University / Tohoku University, Japan)
- OS29-2
16:05-16:25 **The Role of Cation on the Bending of Ionic Liquid Doped Elastomer Under Constant Electric Field**
Gildas Coativy, Laurence Seveyrat, Véronique Perrin, Djasma Djoumoi, David Albertini, Joël Courbon (INSA Lyon, France), Hidemasa Takana (Tohoku University, Japan / Lyon Center, IFS-Tohoku U., Université de Lyon, INSA Lyon, France), Jean-Yves Cavaillé, Gaël Sebald (Lyon Center, IFS-Tohoku U., Université de Lyon, INSA Lyon, France / ELyTMax IRL3757, CNRS, Univ Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Japan), Kanykei Ryskulova, Sébastien Livi, Florent Dalmas (INSA Lyon, France)
- OS29-3
16:25-16:45 **Bending Strength Increase of Silicon Carbide by Density Gradient Structure Design by Direct Ink Writing**
Hiroki Kurita, Teppei Kudo, Teruyoshi Kanno, Zhenjin Wang, Tetsuya Uchimoto (Tohoku University, Japan), Hiroyuki Noto (National Institute for Fusion Science, Japan), Laurent Gremillard, Sandrine Cottrino (INSA Lyon, France), Fumio Narita (Tohoku University, Japan)

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- OS29-4
9:10-9:30 **Analysis of the Drift Velocity of Carbon in Iron Crystal under High Electric Fields**
Ryuta Onozuka (Tohoku University, Japan / INSA Lyon, France), Patrice Chantrenne (INSA Lyon, France), Takashi Tokumasu (Tohoku University, Japan)
- OS29-5
9:30-9:50 **Neural Network-based Prediction of Flaw Parameters in Periodic Rough Surface Using Ultrasound Reflection Data**
Kotaro Fujii, Hiroyuki Nakamoto (Kobe University, Japan), Philippe Guy (INSA Lyon, France), Tetsuya Uchimoto (Tohoku University / ELyTMax IRL3757, CNRS, Univ. Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Japan)

- OS29-6
9:50-10:10 **Study of Steel Hydrogen Embrittlement Using Ultrasonic Technique**
Guy Feuillard, Jules Toupin, Hossep Achdjian, Julien Bustillo, Louis Leffray (Université de Tours, France), Nicolas Mary (INSA Lyon, France), Tetsuya Uchimoto (Tohoku University, Japan)
- OS29-7
10:10-10:30 **Elucidation of Degradation Mechanism of VIP Performance by Aging Effect**
Atsuki Komiya (Tohoku University / ELyTMaX IRL 3757, CNRS, Univ. Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Japan), Mateo Groux, Genevieve Foray (INSA Lyon, France)
- 10:30-10:45 BREAK
- OS29-8
10:45-11:05 **Monitoring Eukaryotic Cell Functions under Various Hypoxic Conditions with Microfluidic Based Oxygenators**
Nasser Ghazi (University Claude Bernard Lyon 1, France), Naoto Kawahara, Satomi Hirose, Shohei Yanagita, Kenichi Funamoto (Tohoku University, Japan), Christophe Anjard, Jean-Paul Rieu (University Claude Bernard Lyon 1, France)
- OS29-9
11:05-11:25 **Investigation of a Predictive Therapeutic Response Under Controlled Oxygen Condition in Cancer Patient-Derived Organoids**
Satoshi Aratake (Tohoku University, Japan), Morgane Roinard, Jean-Paul Rieu (University Claude Bernard Lyon 1, France), Kenichi Funamoto (Tohoku University, Japan), Nicolas Aznar (University Claude Bernard Lyon 1, France)
- OS29-10
11:25-11:45 **Turing Patterns on 3D Rigid Materials**
Fumitake Kato, Hiroshi Koibuchi (National Institute of Technology (KOSEN), Ibaraki College, Japan), Elie Bretin, Camille Carvalho, Roland Denis, Simon Masnou (Université Claude Bernard Lyon 1, France), Madoka Nakayama (Institute of Science Tokyo, Japan), Sohei Tasaki (Hokkaido University, Japan), Tetsuya Uchimoto (Tohoku University / ELyTMaX, CNRS-Université de Lyon-Tohoku University, Japan)
- OS29-11
11:45-12:05 **Identification of Transient Aspect in Taylor Vortex Structures between Double Cylinders using DMD**
Hiraku Yata, Kana Akinaga (Akita University, Japan), Atsuki Komiya (Tohoku University, Japan), Takahiro Adachi (Akita University, Japan)
- OS29-12
12:05-12:25 **Mass Transfer Enhancement and Control by using Ultrasound Induced Flow**
Ruiyao Zhu (Tohoku University, Japan), Valéry Botton, Sophie Miralles (INSA Lyon, École Centrale de Lyon, Université Claude Bernard Lyon 1, France), Atsuki Komiya (Tohoku University / ELyTMaX IRL 3757, CNRS-Tohoku University International Research Laboratory, Japan)