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France Japan Forum 2025 (JSPS – JST)
Energy Transition and Materials
Experiments and multiscale modelling for improved performance and new applications

Program

Monday, November 24, 2025

[Venue] Capelle amphitheater in INSA Lyon

8:00-8:20 Reception & Welcome Coffee

8:20-9:00 Opening remarks

- Damien FABREGUE, Vice-President for International Affairs, INSA Lyon
- Richard PERKINS, Director of International Relations Development, ECL
- Marie-Pierre FAVRE, CGO, Vice-President for Comprehensive Internationalization, Tohoku University
- Osamu OGATA, Consul, Head of the Consular Office of Japan in Lyon
- Toshiyuki TAKAGI, Director of Japan Society for the Promotion of Science (JSPS) Strasbourg Office

Introductory speeches

- Lucile JOLY-POTTUZ, INSA Lyon and Frédéric GILLOT, ECL
- Gota KIKUGAWA and Hiroshi JINNAI, Tohoku University

Photo session

9:00-10:20 Session 1: Synchrotron and materials

Chairperson: Hiroshi JINNAI, Tohoku University

9:00-9:40 Wataru YASHIRO, Tohoku University

Recent advances of 4D synchrotron X-ray tomography

9:40-10:20 Wolfgang LUDWIG, MatéIS

Diffraction Microstructure Imaging across length scales

10:20-10:40 Break

10:40-12:00 Session 2: JST session – Energy storage material design

Chairperson: Mickael LALLART, INSA Lyon

10:40-11:20 Chiharu TOKORO, Waseda University

Chemical-Free and Heat-Free Precision Separation of Lithium-Ion Battery Active Materials via Electrical Pulsed Discharge for Direct Recycling

11:20-12:00 Claire VILLEVIEILLE, LEPMI Grenoble

Operando monitoring of batteries: Understanding transport limitations

12:00-14:00 Poster Session and Lunch

14:00-15:20 Session 3: Energy conversion

Chairperson: Jean-Yves CAVAILLE, INSA Lyon

14:00-14:40 Hiroki KURITA, Tohoku University

Energy-harvesting and Mass Sensor Performance of Structurally Designed Fe-Co Magnetostrictive Alloy

14:40-15:20 Jean-Fabien CAPSAL, LGEF, INSA

TBC

15:20-15:40 Break

15:40-17:00 Session 4: Mechanism of Energy Dissipation

Chairperson: Gota KIKUGAWA, Tohoku University

15:40-16:20 Jean-Marc CHENAL, INSA Lyon

TBC

16:20-17:00 Ken NAKAJIMA, Institute of Science Tokyo

AFM Nanomechanics on Polymeric Materials

17:00-17:20 Closing of the day 1

-Lucile JOLY-POTTUZ, INSA Lyon and Frédéric GILLOT, ECL

-Gota KIKUGAWA and Hiroshi JINNAI, Tohoku University

Tuesday, November 25, 2025

[Venue] Amphitheater W1 in ECOLE CENTRALE LYON

8:30-9:00 Reception & Welcome Coffee

9:00-10:20 Session 5: Tribology / micro, nano / Lubrification

Chairperson: Juliette CAYER BARRIOZ, ECL

9:00-9:40 Takuya KUWAHARA, Osaka Metropolitan University

Can atomic-scale tribochemistry explain macroscale friction and wear?

9:40-10:20 Fabrice DASSENNOY, LTDS, ECL

Nanoparticles as Next-Generation Lubricant Additives: Mechanisms, Performance and Challenges

10:20-10:40 Break

10:40-12:00 Session 6: Energy efficiency and CFD

Chairperson: Tetsuya UCHIMOTO, Tohoku University

10:40-11:20 Yoshiaki ABE, IFS, Tohoku University

Advances in Data-Driven Aeroelastic Analysis for Multidisciplinary Aircraft Design

11:20-12:00 Louise TOUALBI, Onera

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Experimental analysis of hardening mechanisms in an aluminum alloy manufactured by the L-PBF process

12:00-13:10 Poster Session and Lunch

13:10-14:30 Session 7: Architected Materials

Chairperson: Bernard NORMAND, INSA Lyon

13:10-13:50 Makoto WATANABE, NIMS

Cracking Suppression and Microstructure Optimization in Additive Manufacturing of Ni-based Alloys

13:50-14:30 Clémence PETIT, LGF, Mines Saint-Etienne

Microwave sintering of architected ceramics shaped by additive manufacturing

14:30-14:50 Break

14:50-15:35 Program presentations by French and Japanese agencies

Chairperson: Toshiyuki TAKAGI, JSPS Strasbourg Office

-Léa DEBRAUX, Centre national de la recherche scientifique (CNRS)

-Hirotaka YAMADA, Japan Science and Technology Agency (JST)

-Natsuki SHODA, Japan Society for the Promotion of Science (JSPS) Strasbourg Office

15:35-17:00 Round table: Materials and Energy Transition

Topic 1: "Energy Transition and Materials for the Future"

Chairperson: TBD

Panelists: TBD

Topic 2: "University or Institution-level strategy to facilitate international collaboration"

Chairperson: TBD

Panelists: TBD

17:00-17:20 Concluding remarks

-Christophe CORRE, Director of Research and Innovation, ECL

-Marie-Christine BAIETTO, Vice-President for Research, INSA Lyon

-Kaoru MARUTA, Director, Institute of Fluid Science, Tohoku University

-Toshiyuki TAKAGI, Director, JSPS Strasbourg Office

Wednesday, November 26, 2025

Lab visits *Reservations are required.

[INSA] MatéIS (<https://mateis.insa-lyon.fr/en>)

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LGEF (<https://lgef.insa-lyon.fr/en/>)

INL (<https://inl.cnrs.fr/en/>)

[ECL] LTDS (<https://ltds.ec-lyon.fr/>)

LMFA (<http://lmfa.ec-lyon.fr/>)

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