

Call for Papers *TILA-LIC2022*



# The 8<sup>th</sup> Tiny Integrated Laser and Laser Ignition Conference 2022

Co-located with Optics & Photonics International Congress 2022

<http://lic.opicon.jp/>

April 20 (Wed.) – 22 (Fri.), 2022, Pacifico Yokohama, Yokohama, Japan + REMOTE

**Paper Deadline: closed**

## Organizer of LIC

Division of Research Innovation and Collaboration, Institute for Molecular Science

## Co-organizer

- RIKEN SPring-8 Center, RIKEN
- Micro Solid-State Photonics Association

## Endorsements

- SPIE, the international society for optics and photonics
- JFCA, the Japan fine ceramics association
- Optica, the society advancing optics and photonics worldwide.

## About LIC

Tiny Integrated Laser and Laser Ignition Conference (LIC) is the international forum for discussions on various aspects of the ubiquitous sources and phenomena associated with highly intense laser pulses. LIC offers to share information on sciences and technologies related to Giant Micro-photonics.

## “Tiny Integrated Laser (TILA)” and “Laser Ignition (LI)”

“Tiny Integrated Laser (TILA)” means the compact integration of highly intense laser devices and peripheral systems that enables ubiquitous operation of extraordinarily accurate measurements and control of extreme material phases. Here, the word “laser ignition (LI)” originally means the laser induced breakdown ignition, and it also implies the induction of phenomena caused by the irradiation of high-brightness laser pulses.

Based on the recent photonic innovation called by Giant Micro-photonics, ubiquitous lasers symbolized by TILA that can be operated at everywhere and anytime by everybody can become the door to promote the world to a new generation.

## Location

The conference will be held on April 18 - 22, 2022 in the frame of the OPTICS & PHOTONICS International Congress (OPIC2022), as a hybrid conference (On-site at Pacifico Yokohama, Yokohama, Japan and virtual on Zoom). The exhibition (OPTICS & PHOTONICS International Exhibition, OPIE2022) will be co-located on April 20 (Wed) – 22 (Fri).

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## **SCOPES**

**This conference aims at collating the latest developments in laser technologies and their applications of the compact laser systems by the integration of knowledges. Papers are solicited on, but not limited to, the following topics:**

### **A. Tiny integrated lasers**

- Pumping source of miniature lasers
- Giant pulse generation from ubiquitous devices.
- Integration of miniature lasers for high power generation
- Design concepts and simulations for integrated power lasers

### **B. Optical materials for tiny integrated lasers**

- Performance of optical materials
- Laser grade ceramics
- Nonlinear optical materials
- Material processes for power lasers

### **C. Laser induced phenomena by power miniature lasers**

- Laser induced breakdown
- Laser cavitation
- Laser acceleration
- Nonlinear optics (VUV, VIS, IR, MIR, THz)

### **D. Application of tiny integrated lasers**

- Laser ignition for green innovations
- Laser ignition for aerospace applications
- Laser diagnostics / Remote sensing
- Laser processing and optical bio-genetics

## **Invited speakers**

**Masayasu Shimura (Tokyo Institute of Technology)**

**Hyungrok Do (Seoul National University)**

**Ichiro Shoji (Chuo University)**

**Mitsunori Ito (IHI Corporation)**

**Yuji Oki (Kyusyu University)**

**Daniel Rytz (Electro-Optics Technology GmbH)**

**Takunori Taira (RIKEN)**

**Arvydas kausas (Institute for Molecular Science)**

**Kenichi Hirosawa (Mitsubishi Electric Corporation)**

**Tohru Suzuki National Institute for Materials Science)**

**Tomohisa Takemasa (Konoshima Chemical Co., Ltd. )**

**Mitsuhiro Yoshida (High Energy Accelerator Research Organization)**

**Tomozaburo Yano (Japan Fine Ceramics Assiciation)**

**Fabian Rotermund (Korea Advanced Institute of Science and Technology)**

## **Production information session**

**After closing remarks of TILA-LIC2022, the information commercial products related to Giant Micro-photonics will be presented. Some products will be exhibited during TILA-LIC 2022.**

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## Conference committees

Conference chair: Takunori Taira (RIKEN SPring-8 Center, RIKEN, Japan)

## Program committee

Chair: Jun Hayashi (Graduate School of Energy Science, Kyoto Univ., Japan)

Eiichi Takahashi (Nihon Univ., Japan)

Nicolaie Pavel (National Institute for Lasers, Plasma and Radiation Physics, Romania)

Zhang Zhgang (Peking Univ., China)

Takeshi Saito (Meisei Univ., Japan)

Laurant Zimmer (Centre national de la recherche scientifique (CNRS), France)

Gerard AKA (Institut de Recherche de Chimie Paris (IRCP), France)

## Steering committee

Chair: Masato Kawano (Japan Fine Ceramic Association)

Kei Takeya (Institute for Molecular Science, Japan)

Hideki Ishizuki (RIKEN, Japan)

Yoichi Sato (RIKEN, Japan)

## schedule

- Sept. 16<sup>th</sup>, 2021: LIC2022 web-site will open.
- Oct. 7<sup>th</sup>, 2021: Submission site (in OPIC2022) opened.
- Dec. 14<sup>th</sup>, 2021: Registration site (in OPIC2022) opened.
- Feb. 4<sup>th</sup>, 2022: Submission deadline.
- Mar. 3<sup>rd</sup>, 2022: LIC2022 conference program will be released.
- Apr. 7<sup>th</sup>, 2022: Deadline of the early bird registration.
- Apr. 20<sup>th</sup>, 2022: TILA-LIC2022 will start.

## Contact information

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OPTICS & PHOTONICS International Congress 2022 (OPIC 2022)

Web site LIC2022 <<http://lic.opicon.jp/>>, OPIC2022 <<http://opicon.jp/>>

