Call for Papers ***LIC2018***

The 6th Laser Ignition Conference 2018

Co-located with Optics & Photonics International Congress 2018

http://lic.opicon.jp/

April 23 (Mon.) – 27 (Fri.), 2018, Pacifico Yokohama, Yokohama, Japan

Paper Deadline: Dec. 14 (Thu.) 2017

LIC - An international forum to discuss all aspects of laser induced ignition: advances in novel giant pulse micro-lasers, new insights into the phenomena of laser induced breakdown, and advanced combustion systems enabled by laser ignition.

The purpose of this meeting is to share information on laser ignition and related sciences and technologies. The conference will be held at Pacifico Yokohama, Yokohama, Japan, on April 23-27, 2018 with the sponsorship from *Micro Solid-Sate Photonics Group* of the Laser Society of Japan (LSJ) in cooperation with OSA and several academic societies and associations.

SCOPE

In order to achieve higher fuel efficiencies, and lower fuel emissions while maintaining engine specific power densities, many practical combustion systems have resorted to advanced combustion regimes wherein ignition is severely impeded. Laser ignition has proved instrumental in unlocking the true potential of such combustion modes. This is the 6th Conference that attempts to collate the latest developments in laser and laser technologies for the feasibility of laser ignition in practical combustion systems. In parallel, the latest developments in non-laser ignition systems will also be presented. Also, studies that enhance our understanding of the ignition process will also be presented. Included in this conference are guest lectures from leading authorities on ignition technologies.

A. High brightness lasers for ignitions

- Micro solid-state photonics: advanced laser crystals, laser ceramics, and micro-domain controlled materials
- Giant micro-photonics: mega-watt class giant pulse generation from micro photonics
- High power and reliable diode lasers: high power VCSELs, DFB and VBG based diodes, etc.
- High power and reliable fiber or fiber lasers, including pump delivery or giant pulse generation

B. Advanced ignition systems for stationary natural gas engines, vehicular and aerospace applications

- Fundamental ignition studies.
- Advanced ignition systems for stationary power generation: Lean-burn, High EGR, and dilute combustion regimes.
- Advanced ignition systems for vehicular applications: Lean-burn, High EGR, dilute combustion.
- Laser ignition in Aerospace applications: Low-density combustion, Hypersonics, etc.
- Laser ignition of energetic materials: Ignition of solid propellants using lasers, Space / ballistic applications, etc.

C. Advanced applications of giant-pulse microchip laser and/or tiny integrated laser

- Nonlinear optics: higher harmonic wave generation, optical parametric generation, sum and differential wave generation for VUV to THz wave generation, etc.
- Diagnostics: LIBS, mass spectroscopy, gas sensing, ranging (LIDAR), etc.
- Materials process: laser drilling, laser peening, and the other advanced laser processing, etc.
- Laser damage: fundamental physics, practical systems

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Sponsored by *Micro Solid-Sate Photonics Group of the Laser Society of Japan*

Previous Meeting Archive

http://www.osa.org/en-us/meetings/topical_meetings/laser_ignition_conference/

OPTICS & PHOTONICS International Congress 2018 (OPIC 2018)

Web site **LIC2018** <http://lic.opicon.jp/>, **OPIC2018** <http://opicon.jp/>

EXHIBITION will be held simultaneously on April 24 (Tue.) – 27 (Fri.) at Pacifico Yokohama.