



# The 1st. Laser Ignition Conference 2013

Co-located with Optics & Photonics International Congress 2013

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

April 23 (Tue.) – 26 (Fri.), 2013, Pacifico Yokohama, Yokohama, Japan

**Extended Paper Deadline: January 31, 2013**

**LIC** - An international forum for discussion on all aspects of laser induced ignition, including novel giant pulse micro-lasers, new phenomena of laser breakdown, advanced combustion systems and their applications.

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 23-25 (26), 2013 with the sponsorship of the Japan Laser Society in cooperation with several academic societies and associations.

## SCOPE

### A. High brightness lasers for ignition and diagnostics

- 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, include pump delivery or giant pulse generation

### B. Laser ignited engines for power generation and vehicle

- Laser induced breakdown plasma and combustion process analysis
- Laser ignition for electrical power generator and gas engine
- Laser ignition for automobile engine, using gasoline, gas, or any other fuels.
- Future combustion systems: combination with plasma assisted combustion

### C. Applications of high brightness laser (Should be Joint Symposium)

- Nonlinear optics: harmonic wave generation, optical parametric generation, sum and differential wave generation, etc.
- Diagnostics: LIBS, mass spectroscopy, gas sensing, etc.
- Materials processing: laser drilling, laser peening, etc.
- Bio-medical applications: multi-photon microscopy, laser surgery, laser therapy, etc.

## Invited Plenary Talk

**Robert L. Byer (Stanford University)**

“Laser for Ignition and for Future Energy Generation” upgraded to OPIC Plenary Talk

## COMMITTEE MEMBER

**Takunori Taira**, *Institute for Molecular Science, Japan*, **General Chair**

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**Ernst Wintner**, *Vienna University of Technology, Austria*, **Vice Chair**

### 3rd. Call for Papers **LIC'13**

**Masaki Tsunekane**, *Institute for Molecular Science, Japan*  
**Rakesh Bhandari**, *Institute for Molecular Science, Japan*  
**Nobuyuki Kawahara**, *Okayama University, Japan*  
**Takeshi Saito**, *Meisei University, Japan*  
**Eiichi Takahashi**, *The National Institute of Advanced Industrial Science and Technology, Japan*  
**Takuma Endo**, *Hiroshima University, Japan*  
**Yuji Oki**, *Kyushu University, Japan*  
**Epaminondas Mastorakos**, *University of Cambridge, UK*  
**Sreenath Gupta**, *Argonne National Laboratory, USA*  
**Nicolaie Pavel**, *National Institute for Lasers, Plasma and Radiation Physics, Romania*  
**Zhang Zhgang**, *University of Beijing, China*  
**Irina T. Sorokina**, *Norwegian University of Science and Technology, Norway*  
**Peter Moulton**, *Q-Peak, USA*

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**Akihiro Sone**, *Hamamatsu Photonics K.K., Japan*

#### OPTICS & PHOTONICS International Congress 2013 (OPIC 2013)

Web site LIC '13 <<http://lic.opicon.jp/>>, OPIC '13 <<http://opicon.jp/>>

EXHIBITION will be held simultaneously on April 24 (Wed)-26 (Fri) at Pacifico Yokohama.

Sponsored by *The Micro Solid-State Photonics Group of The Laser Society of Japan*



#### Cooperation Organization:

