

# ICALEO®

37<sup>th</sup> INTERNATIONAL CONGRESS ON  
APPLICATIONS OF LASERS & ELECTRO-OPTICS

[www.icaleo.org](http://www.icaleo.org)

# CALL FOR PAPERS AND POSTERS

## Abstract Deadline: March 1, 2018

### World's Premier Platform for Breakthrough Laser Solutions

ICALEO® brings together the leaders and experts in the field of laser material interaction, providing the world's premier platform for sharing new ideas and discovering solutions.

### Focus:

- Laser Materials Processing
- Laser Microprocessing
- Laser Nanomanufacturing
- Laser Applications
- Laser Systems
- Direct Diode Processing
- Ultrafast Laser Processes

### Save the Date:

**October 14–18, 2018**

Rosen Centre Hotel • Orlando, FL USA

Presented by:

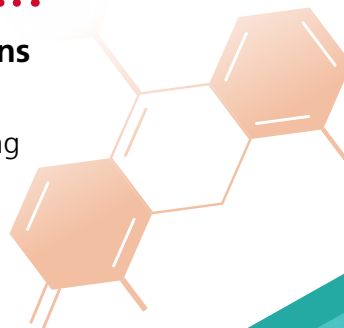


LASER INSTITUTE OF AMERICA

1968-2018

## PEER REVIEWED PAPERS!

Submitters can select the option to have their technical paper reviewed by a blind peer review process. The peer review panel will look for quality of the research, relevance and significance of the findings. Selected papers will be identified as such in the ICALEO® 2018 Congress Proceedings and published in the *Journal of Laser Applications (JLA)*.



## LASER MATERIALS PROCESSING CONFERENCE

The Laser Materials Processing Conference will explore new developments of applications, processes and laser beam sources in laser materials processing. The laser is a fundamental tool in today's industrial production and new development of applications, processes and laser beam sources have driven us to levels we have never seen before. This conference will let you experience and discuss the applications and trends of tomorrow. Conference papers are solicited on a wide range of topics related to Laser Materials Processing, including—but not limited to—the following:

### INDUSTRIES

- Aerospace
- Automotive
- Medical Device
- Energy / Oil & Gas
- Microelectronics
- Laser Safety
- Shipbuilding / Heavy Manufacturing

### PROCESSES

- Advanced Machining
- Cutting / Drilling
- Direct Metal Deposition
- Environmental Issues
- Forming & Cleaning
- Hybrid Processes
- Process Modeling & Control
- Rapid Manufacturing / 3D Printing
- Remote Welding
- Surface Modification
- Welding
- Marking

### LASERS & SYSTEMS

- Advanced Laser Sources
- Diode Lasers
- Diode-pumped Lasers
- Fiber and Disk Lasers
- Ultrafast Lasers
- Hybrid Systems
- Sensing & Monitoring
- Software Development

## LASER MICROPROCESSING CONFERENCE

The Laser Microprocessing Conference will consist of papers featuring a wide spectrum of applications and innovative equipment from biomedical applications to photovoltaics. The presentations will introduce the latest and greatest advancements in their respective fields, presented by world leading companies and research organizations. Requested papers will explore a variety of topics related to Laser Microprocessing, including—but not limited to—the following:

### APPLICATIONS

- Spatial & Temporal Pulse Shaping Applications to Microprocessing
- Integrated Optics
- Lasers in Electronics Production
- Use of Lasers in Fabrication of Solar Cells and Photonic Components

- Medical Device Fabrication
- MEMS Fabrication & Lasers in Microsystems Technology

### PROCESSES

- Cutting / Drilling
- Laser Ablation
- Laser Micro-joining
- Material & Surface Property Modification

- Nonlinear & Near-field Optical Processes
- Two-photon Processes & Microstereolithography
- Ultrafast Laser Processes

### SYSTEMS

- Beam Delivery Systems & Scanning Optics

- Laser Micromachining Systems
- Motion Control in Microprocessing
- Picosecond & Femtosecond Lasers
- UV / VUV & EUV Sources
- Beam Sources for Nanoapplications

## NANOMANUFACTURING CONFERENCE

The Nanomanufacturing Conference will consist of presentations on nanomanufacturing, which have relevance to laser technologies. Much progress has been achieved in laser direct writing for nanomachining, nanofabrication using femtosecond lasers and laser assisted growth of nanostructures. This conference will highlight research in emerging nanomanufacturing technologies in 3D micro/nanomachining, 2-photon lithography, digital fabrication, nanoparticle formation, surface nanostructuring and laser assisted growth and epitaxy. Submitted papers may discuss a breadth of subjects related to Nanomanufacturing, including—but not limited to—the following:

### HIGHLIGHTED SESSIONS

- Nanomanufacturing of Energy Devices
- Nanometrology
- Nanofabrication of Biomedical Devices
- Nanofabrication of Functional Devices

- Energy Devices
- Imaging
- Information Technology
- Laser Interactions with Biomolecules
- Nano / Bio-sensors
- Nanoelectronics
- NEMS
- Solar Cells

### APPLICATIONS

- Biomaterial Nanofabrication
- Biomedical Devices
- Cognitive Devices
- Communications

### PROCESSES

- DUV / EUV Lithography
- Femtosecond Laser Machining

- Holography & Interferometry
- Maskless & Soft Lithography
- Nanofiber Electrospinning
- Nanoimprinting / Embossing
- Nanoxerography
- Near Field Scanning Optical Methods
- Plasmonic Imaging
- Pulsed Laser Deposition
- X-Ray Lithography / LIGA

### SYSTEMS

- Laser Scanners / Profilometers
- Nanomanipulators
- Nanometrology Platforms
- Nanopositioners
- Nanoscale Rapid Prototypers
- NSOM / SNOM
- Optical / Laser Lithography
- Scanning Probe Microscopes
- Steppers & Aligners

## POSTER PRESENTATION GALLERY

Poster presentations that submit a manuscript will be included in the ICALEO Proceedings. Poster presenters have the opportunity to participate in a Flash Poster Presentation.