

The 4th International Congress on Laser Advanced Materials Processing

LAMP2006

<http://www.jlps.gr.jp/lamp/lamp2006/>

May 16-19, 2006,

Kyoto Research Park, Kyoto, Japan

<http://www.krp.co.jp/english/index.html>

LPM2006- The 7th International Symposium on Laser Precision Microfabrication

HPL2006- The 2nd International Symposium on High Power Laser Macro Processing

Organizers:

JLPS- Japan Laser Processing Society, Japan

AIST- National Institute of Advanced Industrial Science and Technology, Japan

RIKEN- The Institute of Physical and Chemical Research, Japan

General Chair:

Isamu Miyamoto, Osaka University, Japan

Co-Chairs:

Koji Sugioka, RIKEN, Japan

Seiji Katayama, Osaka University, Japan

Henry Helvajian, The Aerospace Corporation, USA

Friedrich H. Dausinger, Univ. of Stuttgart, Institut für Strahlwerkzeuge, IFSW, Germany

Kazuyoshi Itoh, Osaka University, Japan

► **Aim and Scope**

The International Congress on Laser Advanced Materials Processing (LAMP) deals with science and technology of advanced laser materials processing covering precision microfabrication and high power laser processing. Basically LAMP is held every four years, and the former LAMPs have won the good reputation and popularity as the one of the most excellent international meetings in the world. LAMP 2006 is held during May 16-19, 2006, in Kyoto, ancient capital of Japan with the most authentic and traditional atmosphere. LAMP 2006 consists of International Symposia on Laser Precision Microfabrication (LPM) and High Power Laser Processing (HPL) and covers hardware as well as software for fundamental research and industrial applications in both micro and macro processing. LAMP 2006 is planned as a four-day event with a plenary session, oral and poster sessions, special sessions dealing with topical issues, and a table-top exhibition with inviting most important world authorities in this field. The aim of this congress is to provide a forum for discussion of fundamental aspects of laser-matter interaction, the state-of-the-art of laser materials processing, and topics for the next generation with fundamental scientists, end users and laser manufacturers. We expect that LAMP 2006 would play an important role not only for understanding fundamental knowledge of laser materials processing but also forecasting future technologies to be developed and the future laser market.



Kinkaku-ji Temple



Ryuan-ji Temple (Zen Rock Garden)



Maiko (apprentice *geisha*)

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► LPM TOPICS

1. Fundamental aspects (Dynamics, modeling, simulation, etc.)
2. Process monitoring and control
3. Nanotechnology
4. Direct write process (MAPLE-DW, LIFT, etc.)
5. Ultra-short pulse laser processing
6. VUV laser processing
7. Surface treatment (Texturing, cleaning, annealing, modification, etc.)
8. Micro-patterning and micro-structuring
9. Micro-machining
10. 3-D micro- and nano-fabrication
11. Drilling and cutting
12. Welding and bonding
13. Micro-forming
14. Wafer dicing
15. Marking and trimming
16. Packaging and mounting process
17. Lithography (including EUV source and application)
18. Manufacture of micro devices and systems
19. Film deposition and synthesis of advanced materials (PLD, CVD, etc)
20. Nano- and micro-particles
21. Medical and biological applications
22. Optics and systems for laser microprocessing
23. Laser devices
24. Industrial applications
25. Photochemistry
26. Free electron laser material processing
27. High-power single-mode fiber lasers
28. Glass/Ceramic processing
29. Others

► HPL TOPICS

1. Fundamentals of laser-materials interactions
2. Laser-induced plasma
3. Monitoring and control
4. Modeling and simulation
5. Materials and metallurgical aspects
6. Evaluation of properties (Strength, etc.)
7. High power laser diode
8. Gas laser
9. Solid-state laser
10. Optics
11. Beam delivery system
12. Welding
13. Welding of light metals and alloys
14. Tailored-blank welding
15. Hybrid welding
16. Drilling and cutting
17. Cleaning
18. Surface modification (Quenching, alloying, etc.)
19. Cladding
20. Rapid prototyping
21. Forming and shaping
22. New and innovative applications (Sandwich panel, etc.)
23. Applications (Automobiles, ship, trains, airplanes, etc.)
24. Applications (Steel, motors, parts, nuclear fields, etc.)
25. Present status and future prospects
26. Others

► Access to Kyoto, The Most Authentic and Traditional City of Japan

[About "Kyoto": <http://web.kyoto-inet.or.jp/org/hellokcb/eng/index-e.htm>]

[Access to "Kyoto": <http://www.krp.co.jp/english/krp/location/index.html>]

["Kyoto City Map": <http://www.krp.co.jp/english/krp/location/index2.html>]

