

EMPA

In its role as a multidisciplinary, independent research institution and provider of specialist technical services, Empa works to create sustainable solutions to high priority problems faced by industry and society in the areas of material science and technology development. Empa's bridging function between research and practical implementation enables it to make a significant contribution to strengthening the competitiveness of the Swiss economy and enhancing the quality of life for the public at large.

SLN

Swisslaser.net or short SLN (Swiss Photonics and Laser Network) is a non-profit association. It is the Swiss national technology platform for photonics and serves as a network for a common vision and growth of the photonics industry. It is the declared goal of the SLN to promote the competitiveness of its members through the support of the innovation forces.

SSOM

The Swiss Society for Optics and Microscopy (SSOM) combines the Swiss national interests in optics and microscopy and recently also in nanotechnology. It has been supporting the evolution of optics and microscopy over the past 50 years. The SSOM's primary mission is to cultivate contacts between academic and industrial workers in the field, as well as laypeople interested in optics, microscopy and nanotechnology

EMPA LABORATORIES IN THUN

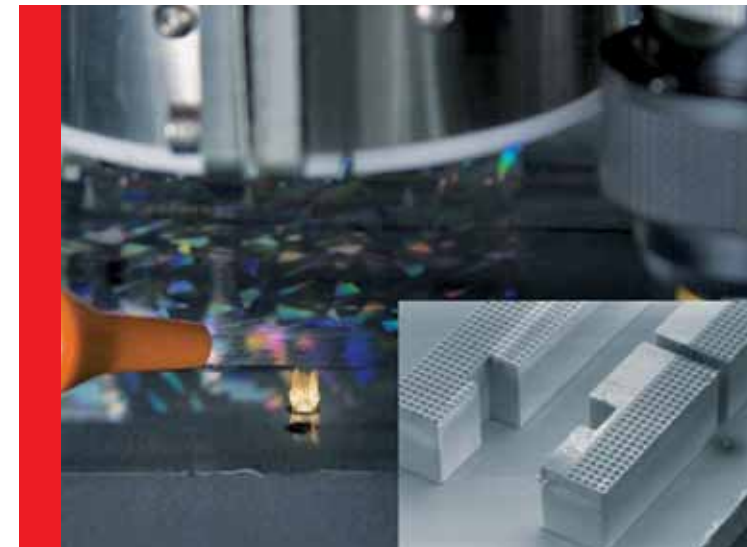
The **Advanced Materials Processing Laboratory** of Empa in Thun starts ramping up materials processing by lasers. Laser structuring of materials combines several advantages such as not having mechanical contact with the machining tool, no production of additional waste with a very high precision and economic speed of processing. Especially mask projection patterning of large surfaces opens cost-effective production of micro- and nano-structured master pieces in polymers. This technology, based on excimer laser ablation of polymers, is a key enabling technology for prototyping large scale micro- and nano-structured materials. It enables the production of structures for present and future industrial challenges, which are technically difficult to produce otherwise. Within the large range of potential applications of these micro- and nano-structured surfaces, the first focus will be on light management such as photon harvesting or tailored light distribution. More demanding devices implying light guiding and light manipulation are further topics the laboratory will deal with.

The new activity of laser structuring of materials will reinforce strongly existing ion and electron beam surface patterning research activities at Empa in Thun in the **Laboratory for Mechanics of Materials and Nanostructuring**. The unique strength of both laboratories is the capability to combine industrial scale processing with cutting edge materials microanalysis facilities (optical, chemical, microstructure, mechanical, tribological properties of materials), that enables both fundamental research projects as well as research contract work for industry.



INAUGURATION LASER CENTER EMPA, THUN

Innovative Laserbearbeitung im Mikro- und Nanometerbereich



Empa, Thun, Feuerwerkerstrasse 39
Donnerstag, 7. April 2011, 10.00–16.00 Uhr

Online-Anmeldung unter www.empa.ch/lct

INAUGURATION LASER CENTER EMPA, THUN

Die Empa hat am Standort Thun Anfang dieses Jahres in Zusammenarbeit mit der Crealas GmbH ein neues UV-Laser-Labor in Betrieb genommen.

Dies haben wir zum Anlass genommen, für Sie ein Technologieseminar zu organisieren. Unter dem Titel: „Innovative Laserbearbeitung im Mikro- und Nanometerbereich“ werden hochkarätige ReferentInnen aus Wissenschaft und Industrie sprechen (Deutsch und Englisch). Unser Seminar soll Forscher und Anwender zusammenbringen und einen regen Austausch ermöglichen. Wir freuen uns schon jetzt, Sie persönlich an der Empa in Thun begrüßen zu dürfen.

Empa has recently put a new UV Laser Laboratory in operation in collaboration with Crealas GmbH. We took this as an opportunity to organise a technology seminar to spur communication and networking between academia and industry for laser processing. The program “Innovative Laser Machining at the micrometer and nanometer scale” contains presentations of world renowned experts from academia and industry. We look forward to welcoming you to this exciting event at Empa in Thun.

ZIELGRUPPE

Dieses Seminar wendet sich an alle technisch Interessierten, im Speziellen Fachleute aus den Bereichen Mikro- und Nanobearbeitung, Laser und Photonik.

TARGET GROUP

The seminar is geared towards technically interested people, especially engineers and scientists active in the fields of micro- nanomachining, lasers and photonics.

PROGRAMM

- 10.00 Begrüssung**
Prof. Dr. Gian-Luca Bona, Empa
Dr. Raphael Lanz, Stadtpräsident Thun
Prof. Dr. Patrik Hoffmann, Empa
- 10.30 Some aspects of optical modelling in materials interactions with UV and VUV lasers**
Prof. Dr. Peter Dyer, University of Hull
- 10.55 EUV sources, the path for future nanostructuring**
Prof. Dr. Peter Lossen, Fraunhofer-Institut für Lasertechnik (ILT) Aachen
- 11.20 Excimer laser ablation patterning: micro- and nanostructures for optical applications**
Dr. Jürgen Ihlemann, Laser-Laboratorium Göttingen
- 11.45 UV laser ablation of polymers: from fundamentals to applications**
Prof. Dr. Thomas Lippert, Paul Scherrer Institut
- 12.15 Lunch und Networking
Besichtigung der Laseranlage**
- 14.00 Vorstellung von SNAPP**
Dr. Christoph Harder, Swisslasernet
- 14.10 Large-area UV microprocessing**
Rainer Pätz, Coherent
- 14.30 Green laser systems**
Andreas Conzelmann, Trumpf Marking Systems
- 14.50 Hochpräzise Laseranwendungen in der Medizinaltechnik**
Noémie Dury, Lasag
- 15.10 3D Displays without goggles**
Ivar Boerefijn, Dimenco
- 15.30 Lasers in thin-film photovoltaic**
Dr. Andreas Baechli, Oerlikon Solar
- 16.00 Apéro Riche (Swisslasernet)
Besichtigung Laseranlage**

ALLGEMEIN

Ort/Location	Empa, Thun Feuerwerkerstrasse 39 L504
Kosten/Costs	Keine/free of charge
Anmeldung/ Registration	Bitte Online anmelden / Please register online: www.empa.ch/lct
Anmeldeschluss/ Deadline	25. März 2011 / 25 March 2011
Auskunft/Contact	Empa Katrin Gurtner Advanced Materials Processing Telefon +41 33 228 30 26 katrin.gurtner@empa.ch

www.empa.ch

Zufahrt aus allen Richtungen: Autobahnausfahrt «Thun-Süd», Richtung Thun über die Weststrasse, Bürgerstrasse, General-Wille-Strasse, Einfahrt in Kreisel, geradeaus bis zur Barriere, innerhalb des Geländes Signalisation beachten. Parkplätze stehen zur Verfügung.

Ab Bahnhof Thun: Bus STI, Linie 4, (alle 15 Minuten), Richtung Lerchenfeld bis Haltestelle «Waldeck»

