

European Competence Centre Biomedical Microdevices

M E D n e w s 1/2004 – 5 March 2004

Topics

- 1. MEDICS NEWS**
- 2. ADVERTISEMENT**
- 3. UPCOMING EVENTS**

1. MEDICS NEWS

*COME AND MEET US AT THE MEDTEC EXHIBITION
& CONFERENCE 2004 IN STUTTGART, D ON 9-11
MARCH 2004.*

At stand 617 in hall 4.0 we will present different samples covering the topics microimplants, neural prosthetics, telemedicine, microfluidics, biohybrid systems, biomedical sensors and medical ASICs as well as our technology consulting services. We invite you to discuss your specific questions with our experts.

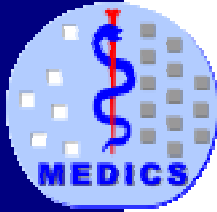
On 9 March 2004, 11 a.m., a press information will take place at our booth.

Also on 9 March 2004, Hans Ruf will give a presentation on 'Enabling Technologies for Lab-on-a-Chip Systems.'

For more information on MEDTEC please visit:
<http://www.medtecshow.com>.

*DOWNLOAD ARTICLES ON MINIATURISED
MAGNETIC RESONANCE, CELL CHIPS FOR IVD,
HOMECARE AND ELECTRODES FOR FES.*

Several articles have been or will be published in the European magazine 'Medical Device Technology'; here is a short overview about the published articles that are now available as pdf-download on our webpages:
<http://www.medics-network.com/download/download.htm>.



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- Magnetic resonance coils for magnetic resonance imaging scanners, MDT October 2003
- Capillary chip based characterisation of small tissue samples, MDT November 2003
- Homecare: a telemedical application, MDT December 2003
- Implantable flexible electrodes for functional electrical stimulation, MDT January / February 2004.

NEW CONTACT PERSONS AT MEDICS/CSEM AND MEDICS/ZARLINK

Due to structural changes at the MEDICS-partners Zarlink Semiconductor and Swiss Center for Electronics and Microtechnologies (CSEM) we welcome Dejan Garovic, Mikael Svensson and Jean Luprano as new contact persons.

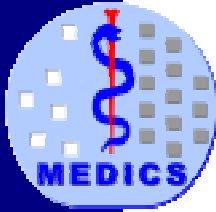
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2. ADVERTISEMENT

HIGH THROUGHPUT LASER MICROMACHINING FOR BIOMEDICAL APPLICATIONS

LPKF Laser & Electronics AG developed a laser process technology known as LDP (Laser Direct Patterning) which allows high-volume production of flexible circuits with microstructures smaller 15µm. Thin metallic layers (e.g. gold, aluminium, platinum) or organic layers (dielectric materials) on a flexible substrate (e.g. polyimide) are removed by laser ablation using a new mask projection technique.

Thickness of metallic or organic layers can be up to 150nm. For special applications a thickness in the µm range is feasible. The used UV laser beam with a wavelength of 248 or 308nm is spread to a surface by means of specific optical components.

The circuit master layout on a quartz mask is being optically scaled down and reproduced on the substrate. Due to spreading of the laser beam and the use of endless flexible substrates high-throughput manufacturing of microstructures can be achieved. LPKF is supplier of such highly efficient reel to reel production machines.

For more information please visit:

http://www.lpkf.com/products/laser_systems/laser_direct_patterning

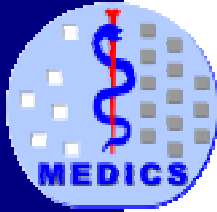
or directly contact Dr. Dieter Meier: +49 5131 70 95 171, <mailto:d.j.meier@lpkf.de>.

3. UPCOMING EVENTS

MODULAR PLATFORM FOR THE DEVELOPMENT OF ACTIVE IMPLANTS

Come and hear Fraunhofer IBMT at the XVIIth Aachen Colloquium on Biomaterials on 4-5 March 2004. The following presentations will be given:

- Modular system as basis for active medical implant developments by Klaus-Peter Koch
- Aspects of encapsulation - implantable microsystems by Anup Ramachandran



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- Investigations on the biostability of electrodes as sensors and actuators in micromachined neural implants by Thomas Stieglitz.

More information is available at:
<http://www.akm-aachen.de/biomat2004/biomat2004.htm>.

4th Conference of the DVM (German Association for Materials Science and Testing) -Group "Biomaterials - Implant Interfaces - Mechanical and Biological-Chemical Questions" on 26-27 March 2004.

Thomas Stieglitz will give a presentation 'On the Cell-Material Interface of Neural Prostheses'.

For more information on this event please visit:
<http://www.dvm-berlin.de/index2.htm>.

See the modular platform for the development of active implants at the Hannover Messe (hall 18, stand 'tech transfer') in Hannover, D on 19-24 April 2004.

For more information please contact Klaus-Peter Koch at Fraunhofer IBMT:

<mailto:klauspeter.koch@ibmt.fraunhofer.de>, Tel: +49 6894 980404.

---- Thank you very much for your attention ----

Yours sincerely

Andreas Schneider
Head of MEDICS

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MEDnews is the electronic newsletter of MEDICS, the European Competence Centre for Biomedical Microdevices. MEDnews is periodically sent to a continuously growing number of friends and partners within the biomedical community. In October 1997, MEDICS was launched in the framework of the European initiative 'Europractice'. Since July 2002, the MEDICS consortium consists of:

- + Fraunhofer Institute for Biomedical Engineering IBMT (D) as co-ordinator
- + i2m Design (E)
- + Zarlink Semiconductor(D)
- + Swiss Center for Electronics and Microtechnologies CSEM (CH)

MEDICS offers various technology, information and consulting services to stimulate the use of microtechnologies for biomedical applications. For further details on MEDICS please visit:
<http://www.medics-network.com>.
