

COMPAMED, Nov 12 – 14, Düsseldorf, Hall 08a / Booth K38

Technologies for Medical Devices



Fraunhofer at COMPAMED 2014

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FRAUNHOFER IFAM

The Medical Technology and Life Science field at Fraunhofer IFAM offers R&D services to manufacturers of implants, instruments, medical adhesives as well as coating companies.

Regarding medical implants, adaption of material composition and compounding processes to their requirements represent a special focus. Innovative molding or printing processes allow mass production and customisation of complex implant shapes. By coating with active ingredients, by optimizing porosity or biological surface functionalization, cell growth managing functions are implemented.

Degradable implants help to avoid the need for surgeries to remove implants after the healing process. In this context, innovative biodegradable polymer and metal based composites are being developed for use in orthopedics.

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FRAUNHOFER IKTS

Through access to Fraunhofer IKTS's decades of competence in customer-specific tasks and expert activities, manufacturer's market challenges in introducing product innovations can be overcome much more efficiently and much faster.

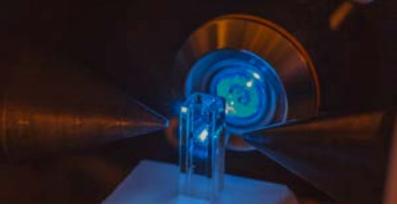
Fraunhofer IKTS is continuously expanding its activities in the area of bone replacement materials, bio-ceramic surfaces and mold designs by classic foaming, molding, and slip casting technologies, in addition to functional sol-gel and plasma coatings as well as new kinds of processes. The services portfolio comprises the development of optical methods for the quick, efficient and cost-effective cancer diagnosis in human tissue.

Contact (Implants, Coatings)

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FRAUNHOFER IPA

PROJECT GROUP FOR AUTOMATION IN MEDICINE AND BIOTECHNOLOGY PAMB

The Fraunhofer Project Group for Automation in Medicine and Biotechnology PAMB as part of the Fraunhofer Institute for Manufacturing Engineering and Automation was founded to boost automation potential in medicine and biotechnology. The group offers R&D services to customers from both academia and industry.

At Compamed our interdisciplinary team shows three different products. Come and see innovative magnetic particle based devices from our lab automation specialists. Our control systems experts will give you an insight into hardware in the loop testing to save time and money during your development process. Hydraulic instruments from our medical assistant system group demonstrate the power of hydraulic drives in small and lightweight instruments.

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FRAUNHOFER IPT

The Fraunhofer IPT combines knowledge and experience in all fields of production technology. In the areas of process technology, production machines, mechatronics, production metrology and quality as well as technology management, we offer partners and customers tailor made solutions and immediately actionable results for modern production.

At Compamed we show our manufacturing technologies for high-performance medical devices made from fiber-reinforced plastics. With our expertise in composite manufacturing technologies we are able to bring your innovative product idea to life. We show examples of fiber-reinforced medical products such as guidewires, puncture needles or structural elements. At our hands-on demonstrator you can also see the variability of high-performance FRP micro-profiles for yourself.

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FRAUNHOFER IZM

Medical applications, in particular, benefit from advanced assembly and packaging technologies, which maximize the functional density and reliability of mesa-, micro- and nanosystems. Such technologies have so far been successfully applied to products like pacemakers, hearing aids, bio-microfluidic devices like lab-on-chip platforms or retinal implants and successively find their way to medical use in apparel and everyday objects. By using telemedicine infrastructure combined with advanced sensor technology and non-obtrusive system integration for constant monitoring at the point-of-care (POC), overall medical costs are reduced while quality of care is improved.

Fraunhofer IZM acts as a one-stop-shop solution provider for customers from research and industry in search for miniaturized integration of microelectronic, microsensory, microfluidic and micro-optical systems.

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FURTHER FRAUNHOFER TRADE FAIR APPEARANCES

Fraunhofer EMFT	hall 08a/K40
Fraunhofer ENAS	hall 08a/H23
Fraunhofer ILT	hall 08a/F34
Fraunhofer ISIT	hall 08a/F39

Visit us at COMPAMED Hall 08a / booth K38

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