SURPRISINGLY INGENIOUS

AUSTRIA

Future Trends of Nanotechnology

Suzhou, PR China

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苏州纳米城

bmvit
Federal Ministry for Transport, Innovation and Technology

Austrian Embassy Beijing
奥地利共和国驻华大使馆
Science and Technology Section
科技处

OSTA
OFFICE OF SCIENCE AND TECHNOLOGY AUSTRIA BEIJING

ADVANTAGE AUSTRIA WKO

INFORMATION

ADVANTAGE AUSTRIA, as part of the Austrian Federal Economic Chamber represents the Austrian economy in 70 countries through its 110 offices and its 800 staff. We are one of the leading trade promotion organizations named by the International Trade Centre an agency of the WTO and UN. The core competence of our organization is providing both Austrian companies and their international business partners with comprehensive services ranging from introducing importers, distributors and agents to providing in-depth information on specific sectors. Last year 1,270 events in total were organized by ADVANTAGE AUSTRIA.

A total of 970 events were held abroad to bring international business contacts together. After 70 years of growth, our organization is deeply embedded into the Austrian economy, which also includes the Nanotechnology industry. Our experts can assist you in finding the right partners and know-how throughout the Austrian Nanotechnology industry, from manufacturer to specialized solution providers.

基本信息

ADVANTAGE AUSTRIA 作为奥地利联邦商会的分支机构和由国际贸易中心确认的在国际上名列前茅的贸易促进组织通过其在 70 国家的 110 家办公室和 800 名员工代表着奥地利经济的存在。我们的核心能力是向奥地利公司及他们的国际合作伙伴提供从帮助奥地利企业寻找进口商，代理商，销售商到为他们提供指定国家的深入的特定行业信息等的全方位商业服务。

去年，ADVANTAGE AUSTRIA 组织了包括 970 海外场活动在内的一共 1270 场活动以借此把国际商务联系在一起。经过 70 年的发展，我们的组织已经深深融入了包括了纳米技术行业在内的奥地利的经济中。来自我们组织的顾问和专家能帮助你们在奥地利的纳米技术行业中找到从生产商到提供专业的解决方案的各种专家。

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RESEARCH INSTITUTIONS | 研究机构

COMPANIES |企业

AIT AUSTRIAN INSTITUTE OF TECHNOLOGY
AIT 奥地利国家技术研究院 | 分子诊断部

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SENSOR DEVELOPMENT: AIT Molecular Diagnostics experts are committed to developing highly sensitive nano-biosensors for analyzing liquids such as serum or saliva.

SYSTEM INTEGRATION: As portable molecular diagnostics depend on miniaturized and automated devices with superior analytical performance, AIT has built up profound expertise in the integration of biomarkers, sensors, microfluidics, reactors, thermal management and readout electronics for such systems..

MICROFLUIDICS: We investigate and develop liquid-based systems, e.g. for serum or saliva analysis, integrating reagent storage and the automation of fluidic protocols.

On-going projects with international partners currently include:
Austrian - Chinese Cooperative R&D Projects between FFG and Shanghai University: Project "NaCoS" as well as Bilateral Cooperation Austria – Chinese Academy of Sciences: Project "PASSION"
AIT is looking for cooperation in research and development of novel nano-enabled sensor technologies (electrical, photonic and magnetic). In particular, expertise in electrochemical bio-sensing is highly welcomed.
AIT is looking for Chinese partners for co-developing, testing (including clinical tests), marketing and distribution of new biomarkers for cancer diagnostics and wants to generate collaborative IP. AIT also wants to give licenses of its own IP.

感应器开发：奥地利技术研究所分子诊断室的专家们致力于开发高灵敏度纳米生物感应器用以分析液体，如血清或唾液。

系统集成：便携式分子诊断依赖于小型化和自动化具有卓越分析性能的设备，因此 AIT 在整合生物标志物、传感器、微流控、反应器、热管理和电子读出集成所需系统方面积累了深厚的专业知识。

微流控：AIT 研究开发基于液体的系统，如血清或唾液分析系统，将试剂储存和流体协定自动化整合于系统。

在研的国际合作项目包括：
上海大学与奥地利研究促进署中奥联合科研项目
"NaCoS"
奥地利与中国科学院联合项目"PASSION"

AIT 寻求新型的基于纳米技术的感应器技术合作（电/光/磁），特别欢迎电化学生物感应方面的专业知识。

AIT 在中国范围内寻找用于癌症诊断领域内的拥有联合知识产权的生物标记的合作开发，测试(含临床)，市场投放及销售的伙伴。并可以转让该产品的知识产权。

JOANNEUM RESEARCH | HYBRID ELECTRONICS AND PATTERNING
JOANNEUM 研究院 | 电子杂化和模式组

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JOANNEUM RESEARCH is a leading international research organisation that develops solutions and technologies for businesses and industries covering a wide range of sectors.

We are a research group located within the premises of Institute for Surface Technologies and Photonics "MATERIALS", the research focis include:
Large-area micro- and nanopatterning

- flexible printed and hybrid (opto) electronics
- smart system integration
- functional and biomimetic surfaces

A broad spectrum of mainly European research and industrial partners are among the international partners including:

- VTT
- Fraunhofer
- Imperial College
- CEA-CNRS
- Univ. Cambridge
- Acreo
- Univ. Amherst

JOANNEUM RESEARCH is interested in cooperation in research on the following topics:

- R2R-nanoimprint lithography
- flexible printed and hybrid (opto) electronics
- smart system integration
- biomimetics

JOANNEUM RESEARCH 是一所引领性的国际化研究组织，开发多领域的商务和产业化的解决方案和技术。

我们是下属于表面科技及光电子学院(MATERIALS)的课题研究组，我们的主要研究方向是:

- 大面积微米级和纳米级图案装饰
- 柔性印刷及混合光电子
- 智能系统集成
- 功能及仿生表面

我们的合作伙伴遍布欧洲的工业和学术界, 例如:

- 芬兰VTT技术研究中心
- 德国Fraunhofer
- 帝国理工
- 法国CEA-CNRS
- 剑桥大学
- ACREO研究机构
- Amherst大学

JOANNEUM 研究院希望在研究方向在以下几个领域寻找合作伙伴:

- R2R 纳米光刻技术
- 柔性印刷及混合光电子
- 智能系统集成
- 仿生

VIENNA UNIVERSITY OF TECHNOLOGY | INSTITUTE FOR THEORETICAL PHYSICS
维也纳技术大学 | 理论物理所

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The Institute for theoretical physics of the Vienna University of Technology is currently focusing on the research and development of Simulation of realistic nanodevices regarding to

- Spintronics
- Valleytronics
- Heterostructures made of two-dimensional crystals
- Solar cells
- Quantum transport
- nanodevice simulation

The institute already partnerd with many worldwide renowned research institutes on various projects:

- M. Morgenstern, RWTH Aachen, Aachen, Germany, EU
- E. A. Carter, Princeton University, Princeton, NJ, USA
- K. Ensslin, ETH Zürich, Switzerland

The institute is willing to have the scientific talks with the chinese peers on 3 topics:

- low-dimensional materials (graphene, transition metal dichalcogenides (TMDs), black phosphorus, hexagonal boron nitride)
- Nanoelectronic devices, in particular optoelectronics, spintronics or valleytronics
- thin solar cells

维也纳技术大学下属的理论物理所现阶段主要集中在模拟真实情况下的纳米装置方向上的研发。该装置能用于模拟:

- 自旋电子
- 能量谷电子
- 由二微晶体组成的异质结构
- 太阳能电池
- 量子传输
- 纳米装置模拟

该所在众多的项目上与很多世界知名院所有长期的合作关系:

- M. Morgenstern，亚琛工业大学，亚琛，德国
- E. A. Carter，普林斯顿大学，普林斯顿，新泽西，美国
- K. Ensslin，苏黎世理工，瑞士

该所希望在这次的活动中在以下 3 个方面与中国的同行展开技术交流:

- 低维度材料（石墨烯，单层过渡金属双硫族化合物, 黑磷, 六角氮化硼）
- 纳米电子设备, 例如光电子，自旋电子及能量谷电子
- 超薄太阳能电池

CUBICURE GMBH
CUBICURE 有限公司

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Cubicure specializes on the research and development of high-performance photopolymer substances and formulations for additive manufacturing applications. To reach this goal, Cubicure developed the Hot Lithography 3D-Printing technology which enables the use of high viscous oligomers for precise lithographic printing purposes. Cubicure develops additive lithographic printing systems for industrial production or R&D purposes and provides a series of high performance photopolymers. These photopolymer formulations – customized or series products – are setting new benchmarks in temperature resistance and/or impact toughness when comparted to state-of-the-art photopolymer formulations. In fact, Cubicure's Hot Lithography technology for the first time combines high-precision 3D-printing with sophisticated polymer material properties for technical use.

The Company maintains long-term relationships with many international partners in term of technology cooperation:

- AM Ventures Holding
- Jabil
- Buzek Plastics
- Rosenberger

Cubicure GmbH is interested in cooperation on the following topics:

- innovative additive manufacturing technology for R&D, functional prototyping, pre-series or series production of typical micro-molding polymer parts.
- Cooperation potential in the field of photopolymer research and development

Cubicure 公司专精于高性能光敏聚合物物质的开发及增材制造应用的规划。公司开发了例如热光刻 3D 打印技术，该技术能使用高粘滞低聚体进行精确光刻打印。公司正在为工业生产及研发开发增材光刻打印系统，该系统能生产出一系列的高性能光敏聚合物。这些来自公司的定制或批量生产的光敏聚合物的配方在最新的光敏聚合物设置了新的抗热和抗冲击强度的基准。事实上，公司的热光刻技术是第一种针对实际技术应用所开发的结合了高精准 3D 打印和复杂聚合物材料特性的技术。

公司在国际上的合作伙伴包括:

- AM Ventures Holding
- Jabil
- Buzek Plastics
- Rosenberger

Cubicure有限责任公司有兴趣合作的课题包括:

- 开发创新的增材创新技术能应用于微成型聚合物部件的研发，功能原形制造，试生产及批量生产。
- 在光敏聚合物方向的研发。

GETEC MICROSCOPY LTD.
GETEC 显微镜有限公司

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GETec Microscopy Ltd is a high-tech start-up focusing on developing of special atomic force microscopes (AFM) dedicated to a seamless integration into other host systems such as scanning electron (SEM) or dual-beam microscopes (SEM/FIB). The modular AFM concept is based on "all electric cantilevers" with integrated sub-micrometer strain sensors allowing a very compact design (AFSEM™, www.getec-afm.com). No optical read-out module limits the access, e.g., of the electron beam to the sample spot of interest. Therefore, correlated in-situ SEM & EDX & AFM analysis of exactly the same sample spot can be performed almost simultaneously.

The international cooperations contain:

- Project coordinator for Eurostars project "TRIPLE-S "
- Project coordinator in the international research project Production of the future: "SENTINEL".
- Project coordinator in the international research project Production of the future: "ICON".

GETec is interested in cooperation on the following topics:

- R&D where AFM functionality has to be integrated into other instruments (especially SEM): Based on a compact modular AFM system using self-sensing cantilevers, GETec can provide custom-made AFM systems for the seamless integration into standard commercial SEM / Dual-beam systems.
- New solutions for material, surface and process analysis: Nano-probing (e.g. topography, electrical conductivity, mechanical and thermal properties) of complex samples in air and vacuum.

GETec 显微镜有限公司，是一家高科技新兴企业，致力于开发特殊的原子力显微镜（AFM），可以无缝整合入其它的主系统，例如扫描电子显微镜系统（SEM）。模块化的 AFM 单元理念基于结合亚微米应变传感器可以达成紧凑设计的"全悬臂"（AFSEM™，www.getec-afm.com）。光学读出模块不会限制例如电子束与样本标的点之间的接入。因此，同一个样本标折点的相关相关联原位 SEM & EDX & AFM 分析可以几乎同时进行。

公司现阶段的国际合作项目包括：

- 欧洲 EUROSTAR 经费资助的项目"TRIPLE-S"的项目协调人
- 关于未来生产的国际科研合作项目"SENTINEL"的合作方
- 在国际研究项目未来制造"ICON"作为项目协调

GETec 有兴趣合作的课题包括：

- 将 AFM 功能化与其它仪器（特别是 SEM）的研发：基于使用自感应悬臂的紧凑 AFM 系统模块，GETec 能提供定制的无缝接入标准商业 SEM 系统的 AFM 系统。
- 材料与加工分析的新型解决方案：复杂样品在空气或真空环境中的纳米级探知（如地形、传导性、热性能等）。

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PROFACTOR is a research company focusing on two main topics:
Systems for industrial assistance and additive micro/nano manufacturing. Both support the "Factory of the Future" realising efficient and effective production processes ranging from nano scale processes over collaborative robotic systems to complex adaptive production systems. In both research areas PROFACTOR builds on years of expertise.

In more than 1,700 projects, the company has shown what can be created with applied production research: innovation. We enable you to be one step ahead and to secure industrial prosperity.
More than 400 customers have trusted us so far – from small businesses to big enterprises: Audi, Airbus, Daimler, MRT, Magna, Siemens, Trumpf, BMW and many more.

PROFACTOR is interested in cooperation on the following topics:

- Machine Vision
- 3D-Digitalization and Object Recognition
- Flexible Robotics
- Heat flow-thermography
- Simulation Based Decision Support & Optimization
- Distributed Information Systems
- Rapid Prototyping and Rapid Tooling
- Nano/Micro-structures
- Functional/decorative Surfaces

Openness encourages innovation. In three OpenLabs (SMART FACTORY LAB, mobile OpenLAB (3D-Printing) and IdeaLAB), the company creatse a place to think, to think out of the box and, above all, to think ahead.
Their OpenLabs are open to our customers and partners. Together with them, we are experimenting and driving forward developments.

PROFACTOR 作为一家研发公司在主要的注意力集中在两个方向:
开发工业辅助和附加微米级/纳米级制造系统。该制造系统全面支持未来工厂的理念，能实现从纳米级流程到协作机器人系统最终到复杂的自适应生产系统的高效率生产流程。在这两个领域中，PROFACTOR 都积累下了丰富的专业技能。

在超过 1700 的案例中，公司通过他们在应用生产研究过程中积累的经验展示出强大的创造力。能保证客户在行业中始终领先和繁荣发展。
公司有从小型企业到行业巨头的超过 400 的客户：奥迪，空客，戴姆勒，MRT，马格纳，西门子，Trumpf，宝马及更多

PROFACTOR 有兴趣合作的课题包括：
材料开发和纳米压印光刻项目、3D 打印、学生互换项目、以及可以使用中国科研机构的设备等
PROFACTOR 集中精力在以下议题上：

- 机器视觉
- 3D-数码化及物体识别
- 柔性机器人
- 热传导热谱
- 基于模拟的判定支持及优化
- 分布式信息系统
- 快速原形机制造及快速开模
- 纳米/微米-构架
- 功能/装饰 表面

开放鼓励创新。在三个开放实验室中（智能工厂实验室，移动开放实验室(3D-打印)和点子实验室），公司创造了一个不按常规思考和超前思考的场所。公司的开放实验室对于顾客和合作伙伴敞开，和他们一道试验及向前推动研发。

RHP-TECHNOLOGY GMBH
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The company is expertized in Material Development, Powder Technology, Functional material properties in metals, ceramics and composites, Thin Film Materials (Sputtering Targets), Space, Optic, Cooling, Wear, Medical, Energy Applications.

Looking for Asian Research Institutions and Industrial cooperations.

RHP-Technology GmbH is interested in cooperation on the following topics:

- New materials
- Ceramics
- Metals
- hot pressing processes
- powder injection moulding
- thin film processes (sputtering targets on demand compositions)
- additive manufacturing (3D printing of metals and ceramics)

RHP 科技有限公司专业于材料开发，粉末技术，金属，陶瓷，混合物等功能材料特征，薄膜材料（溅射靶），航天，光学，冷却，穿戴，医疗及能源方向的应用。

公司现阶段热切寻找在亚洲的研究院所及工业上的合作伙伴。

RHP 技术有限责任公司有兴趣合作的课题包括：

- 新材料
- 陶瓷
- 金属
- 热压工艺
- 粉末注塑成型
- 薄膜工艺（制定混合物的溅射靶）
- 添加剂制造（3D 金属和陶瓷打印）

NOTIZEN
笔记