

FRAUNHOFER ICT-IMM

PRESS RELEASE

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ContiNMR – an international success story: Fraunhofer ICT-IMM meets representatives of Canadian Embassy and Granting Agency

At the beginning of June, Bernd Reuscher, President of the German-Canadian Centre for Innovation and Research (GCCIR) and Dr. Katelyn Petersen, manager of GCCIR, visited together with Dr. Thomas Rehm, project leader at Fraunhofer ICT-IMM, the laboratories of Hansa Fine Chemicals in Bremen for having a closer look at the impressive results of the international project ContiNMR.

Within 18 months the project partners Fraunhofer ICT-IMM, Nanalysis and Hansa Fine Chemicals developed a strategy for analyzing fluorinated fine chemicals by online-NMR spectroscopy. As one of the major players in benchtop NMR technology, Nanalysis adapted their compact NMR spectrometer for the needs of continuous-flow synthesis technology provided by Fraunhofer ICT-IMM. Here, a multi-purpose lab plant was developed and connected to the spectrometer via an electronic liquid control system in order to provide a proof-of-concept for the continuous-flow synthesis and online-NMR analysis of fluorinated fine chemicals. Dr. Jan Barten, CEO of Hansa Fine Chemicals, explains that such fluorinated building blocks are very important chemical precursors for pharmaceutical and agrochemical products with a high market potential. The combination of flow synthesis and online-NMR analysis might lead to an improved safety and cost reduction during the production of such highly valuable fine chemicals.

The Canadian visitors were impressed by the successful progress in the project and the fruitful cooperation of all project partners harmonizing their different expertise in one product. Bernd Reuscher stated that this project is a convincing proof for the German-Canadian initiative to support novel and sustainable ideas in high-technology. Later in 2015 the GCCIR will publish this success story around Fraunhofer ICT-IMM, Nanalysis and Hansa Fine Chemicals as one part of an official brochure for the Government of Alberta.

Within a second appointment Dr. Patrick Löb, Head of Continuous Chemical Engineering Department at Fraunhofer ICT-IMM, and Dr. Thomas Rehm met with Dr. Bruno Wiest, Trade Commissioner of the Canadian Embassy for Science and Technology, in the laboratories of Fraunhofer ICT-IMM in Mainz for a discussion on the German-Canadian cooperation. Dr. Wiest was very pleased to hear, that proposal application as well as granting of the project proceeded in a very quick way with helpful support from both granting agencies. Due to the fruitful cooperation and the great resonance from industry and SMEs on the development of online-NMR analysis



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with compact benchtop spectrometers, Dr. Löb and Dr. Rehm already seek for new projects together with Nanalysis. The compact design of their benchtop NMR spectrometers clearly opens the door for manifold industrial applications in online-analysis, quality management and process control.

The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 66 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of nearly 24,000, who work with an annual research budget totaling more than 2 billion euros. Of this sum, around 1.7 billion euros is generated through contract research. More than 70 percent of the Fraunhofer-Gesellschaft's contract research revenue is derived from contracts with industry and from publicly financed research projects. International collaborations with excellent research partners and innovative companies around the world ensure direct access to regions of the greatest importance to present and future scientific progress and economic development.

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