



CONSORTIAL STUDY: INLINE PROCESS ANALYTICS WITH LIGHT – INLIGHT

Task

The domain of inline process analysis with light is to measure chemical and physical parameters in a process directly, without having to make a sample. Manufacturers and users of optical process analytics are faced with the challenge to meet the growing demands in this sector by developing innovative solutions and technological developments that strengthen their market position and take on a pioneering role. The Fraunhofer Institute for Laser Technology, together with the Federal Institute for Materials Research and Testing (BAM), RWTH Aachen University and industry partners, are conducting a consortial study in which a technology roadmap is being developed for the future development of optical process analytics. This study shall serve to guide the direction of future R&D projects as well as procedural, technological and product-oriented development tasks.

Method

In a series of meetings and workshops within a year, the research institutes and the participating companies will lay the foundations for the technology roadmap. The companies shall define the important topics of study, while research institutes will analyze the technological developments and future potential of the optical process analytics as well as create the technology roadmap.

1 Range of methods of optical process analytics.

Result

Based on four different intersecting issues (methods and processes, evaluation methods, components, and modeling and integration), different aspects of optical process analytics are being examined. In addition, future market developments will be included in the analysis of the topic area. Furthermore, a network of research institutes, suppliers and users of process analyzers has been formed, which should lead to concrete collaborative research projects.

Applications

The application fields of optical process analytics are varied, ranging from the monitoring of chemical processes, via quality assurance all the way to environmental analysis. The fields of application addressed in the study are defined by the participants of the study.

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