

Energetic Materials – Analysis, Characterization, Modelling

**52nd International Annual Conference
of the Fraunhofer ICT**

**June 27-30, 2023
Convention Center, Gartenhalle
Karlsruhe, Germany**

International Annual Conferences of the Fraunhofer ICT, with a different emphasis each year, cover scientific and technological progress in the entire field of energetic materials and the related disciplines. Held annually for over 50 years, the conferences have gained worldwide importance, with hundreds of participants from more than 30 nations each year.

Energetic Materials – Analysis, Characterization, Modelling

Research into energetic materials is more relevant than ever and has been the focus of the ICT Annual Conference for more than 50 years. New research results, developments, applications and trends in the field of energetic materials have continually been presented, discussed and debated by the international research community. Many long-standing research goals are still relevant, such as increased performance and safety. However, there are also new aspects such as reducing the environmental and health hazards of the energetic materials and the resulting reaction products. In addition to the synthesis and production of new, high-performance energetic materials and additive manufacturing, these goals and requirements lead to the development of new and advanced methods in analysis, characterization and modelling. The spectrum ranges from online measurement techniques, and fast spectroscopic methods, through to analytical or even complex numerical models and simulations. The overall aim is to gain a better understanding of the processes and materials being investigated and to identify the factors influencing their behavior, allowing performance predictions or the development of new applications.

The 52nd International ICT Annual Conference invites scientists, engineers and everyone who works with, develops and applies energetic materials to present their ideas, developments and results, to stimulate fruitful discussions leading to improvements and new developments of materials, methods and models.

Chairman of the Conference
Sebastian Knapp
Fraunhofer ICT, Pfinztal, Germany

Announcement and Call for Papers

The Fraunhofer Institute for Chemical Technology is holding its 52nd International Annual Conference on:

Energetic Materials – Analysis, Characterization, Modelling

Main topics

- Modelling and Simulation
- Synthesis of energetic materials and components
- Understanding combustion and detonation phenomena
- New characterisation and experimental methods
- Prediction and tailoring of system behaviour
- New applications of energetic materials

Presentation

Contributions to the conference can take the form of oral presentations (presentation time 20 minutes including discussion) or posters. Please submit an extended abstract not exceeding 500 words with optional figures and tables together with the exact title and name of the author(s). The papers will be published in the Conference Proceedings which will be available at the beginning of the event. Guidelines on how to prepare the text for publication will be sent to the authors.

Conference language

English

Deadlines

Abstracts (to manuela.wolff@ict.fraunhofer.de)	Dec. 16, 2022
Reply to authors	March 2023
Full papers	April 2023

The program will be published in April 2023.

The Fraunhofer Institute for Chemical Technology ICT

The Fraunhofer ICT with its 500 employees is the only German research institution working on the entire development chain, ranging from raw energetic material synthesis through to the development and evaluation of energetic prototype systems. The research is focused on the synthesis, development, characterization, simulation, modeling, formulation and manufacturing of rocket propellants, gun propellants, explosives, gas generators and pyrotechnics.

Fraunhofer ICT helps to ensure the strong analysis and decision-making capabilities of the German Federal Ministry of Defence (BMVg), and supports industrial R&D activities in Germany and Europe. The key to successful research and the development of improved energetic materials and systems is the long-standing competence of the institute's employees.

Today, Fraunhofer ICT carries out R & D on the performance, insensitivity, functionality, safety and environmental compatibility of new, tailor-made propellant and explosive systems.

Conference Management

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