



TECHNISCHE
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INSTITUT FÜR
ANGEWANDTE PHYSIK
Institute of Applied Physics
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Wiedner Hauptstraße 8-10/E134, 1040 Wien/Vienna, Austria – Tel: +43 1 58801 13401 / Fax: +43 1 58801 13499 – E-mail: office@iap.tuwien.ac.at / <http://www.iap.tuwien.ac.at>

IAP-SEMINAR

ANNOUNCEMENT

- Date:** Tuesday, 11.10.2016
Time: 16:00 s.t.
Location: Technische Universität Wien, Institut für Angewandte Physik, E134
yellow tower „B“, 5th floor, Sem.R. DB gelb 05 B (room number
DB05L03), 1040 Wien, Wiedner Hauptstraße 8-10
- Lecturer:** Prof. Dr. Henry Jäger
University of Natural Resources and Life Sciences (BOKU),
Institute of Food Technology, Wien
- Subject:** Pulsed electric fields, high hydrostatic pressure, ultrasound and
plasma applications in food and bioprocessing
- Abstract:** The development of emerging technologies in food and bioprocessing addresses specific consumer needs towards safe, healthy, and minimally processed foods in order to overcome some limitations given by current food processing practices. Taking advantage of specific potentials and opportunities of these new processes, including the understanding and control of the complex process-structure-function relationships, offers the possibility for a science-based development of tailor-made foods. Pulsed electric fields (PEF), high hydrostatic pressure (HHP), ultrasound (US) and cold plasma (CP) are used to exemplify scalable and flexible food manufacturing techniques. The state of the art regarding the research and application of these emerging technologies will be discussed and the potential of establishing new routes of process and product development by interfacing fundamental science and food manufacturing will be demonstrated. Understanding the impact and potential of such technologies on food systems at the cellular level will enable the design of tailor-made foods and to establish process-structure-function relationships. Based on this knowledge, completely new process design and the incorporation of HHP, PEFs, US, and CP in traditional processes, as well as the generation of improved equipment design, will be possible.

*All interested colleagues are welcome to this seminar lecture
(45 minutes presentation followed by discussion).*

*U. Diebold e.h.
(Seminar-Chairperson)*

*F. Aumayr e.h.
(LVA-Leiter)*