OFI – ÖSTERREICHISCHES FORSCHUNGSINSTITUT FÜR CHEMIE UND TECHNIK

TESTING, INSPECTION, CERTIFICATION AND RESEARCH ACTIVITIES
OFI – Who we are and what we do

- Found in 1946 as a partner of the Austrian chemical industry
- Active in the fields of material technologies and building renovation
- 104 employees (FTE) and an annual turnover of 14.5 Mio. EUR
- Largest private testing, inspection and certification body in Austria with over 1000 accredited procedures and 550 certificates issued
- In addition offering expert opinions, consulting and trainings
- Research activities in defined areas make a contribution of 10% of the annual turnover
OFI – Buildings and Renovation

Construction Engineering and Renovation

Sports Technologies

Construction Products

Construction Materials
OFI – Materials Technologies

- Packaging and Food
- Piping Technology, Valves, Water Treatment
- Pharma, Medical Devices & Hygiene
- Plastic Products, Coatings and Bonding
Hygiene

- **Surfaces - Resistance:**
  Resistance of materials against disinfecting agents and disinfection procedures (e.g. Effectivity, Ageing, Residues)

- **Functional Surfaces:**
  Development of antimicrobial surfaces based on chemical and physical mechanism

- **Air:**
  Testing, optimization and development of filters and filter media for the purpose of reducing biological hazardous substances (allergens, bacteria, viruses) in interiors.
Medical Devices

- Development of implants and investigation of their biocompatibility without the use of animal experiments by the means of in-vitro techniques (Cyto- and genotoxicity, irritation, sensibilisation, endocrine disruptors)

- Biocompatibility concerning inflammatory and allergic reactions caused by implantates by the means of mass spectrometry (MS) (Proteomics – Protein analytics)

- Development of biocompatible elastic textiles and investigation of their biocompatibility without the use of animal experiments by the means of in-vitro techniques (Cyto- and genotoxicity, irritation, sensibilisation, endocrine disruptors)
Research Activities

- **Quantum (2013)** – Development of innovative screening methods for analysing residues by the means of HPLC/MS


- **Hygo (2015)** – Development of innovative hygiene concepts taking the resistance of materials against disinfection agents and procedures into consideration (e.g. Effectivity, Ageing, Residues)

- **Biorelation (2017)** – Development of in-vitro methods for the investigation on biocompatibility (Cytotoxicity, irritation, sensibilisation)
Research Activities


- Aeropore (2017-2021): Development and optimization of a test rig for the investigation of filter modules for the purpose of reducing biological hazardous substances (allergens, bacteria, viruses) in interiors.

Core topics in the area „food and packaging“ are:

- Security and quality of food and packagings
- Material and product development (Innovative packagings)
- Packaging technology and environmental aspects
CoinSenses:

- Characterisation of plastics concerning recurrent NIAS (Not Intentionally Added Substances) and the clarification of causes
  - Standard plastics are reviewed concerning recurrent NIAS
  - Goal is to clarify the origin of the substances
  - If there are any odour and/or taste deviations in the organoleptic tests, the responsible substances are identified

- Part of the project is the identification of influence parameters of the origin of NIAS
  - Sterilisation
  - Radiation
  - External influences (e.g. light, oxygen)
Development of insulated transport boxes ("Cool Box"): 

- Reliable protection of easy perishable food in shipment
- New business opportunities in e-commerce, delivery by drones and traditional trade
- Framework of the project:
  - Stackability of the product
  - Usability in a deposit system and in existing washing/drying systems
  - Constancy of temperature from 2 °C - 8 °C or 0 °C - 4 °C over 24 h
  - Individual identification on outside shall be possible (e.g. EAN code)
  - Tamper safety (e.g. by transportation)
  - Sustainability of the box
Identification, optimizing and development of new packaging systems and process concepts

Holistic assessment of the ecological and economical changes in the life-cycle

Guideline for packaging producers, fillers and trade

Effects on food waste at the consumer and the trade
Research Activities

What we are looking for...

- Cooperations with universities in the framework of research projects in particular in the field of biocompatibility, packaging materials and life-cycle analysis

- Specialized chemical analysis, which are not provided by OFI (e.g. molecular weight distribution)

What we offer...

- Cooperations in the field of biocompatibility, packaging materials and life-cycle analysis

- Support with bringing research results to customers and the market

- Testing facilities of OFI can be useful in other research projects
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