

Annual Report 2015

To order the 2015 annual report please contact:

**Deutsche Forschungsanstalt für Lebensmittelchemie
Leibniz Institut
Mrs. A. Stoiber
Lise-Meitner-Strasse 34
D-85354 Freising, Germany
Phone: +49 8161 712928
Fax: +49 8161 712970
Anneliese.Stoiber@lrz.tum.de**



Table of Contents

Structure and Bioactivity of Low-Molecular Food Ingredients (Hedonic Value)

- Aroma-Active Compounds in Curry Leaves
- Characterisation of Key Odorants in Fresh and Dried Sage (*Salvia officinalis*)
- Characterisation of Key Aroma Compounds in Freeze-Dried Thyme
- Aroma-Active Compounds in the Flavour Hops Hallertauer Blanc, Hüll Melon, Mandarina Bavaria and Polaris
- Aroma-Active Compounds in Jackfruit and Cempedak Fruit
- Formation of Key Aroma Compounds in Wheat Bread as Affected by the Proofing Conditions
- Key Aroma Compounds in Orange Juice from Concentrate
- Identification of Important Aroma Compounds in Irish Stout by Means of an Aroma Extract Dilution Analysis
- Characterisation of the Key Aroma Compounds in an Islay Single Malt Scotch Whisky
- Aroma Release Behaviour of Differently Polar Aroma Compounds from a Milk Protein Polysaccharide Foam Model
- Ways to Mitigate Light-Induced Off-Odour Formation on White-Bottled Beer
- On the Role of Methyl 2-Methylbutanoate and Methyl 3-Methylbutanoate in the Aroma of Red Wine
- 1-p-Menthene-8-thiol and its Homologues – Have Odorant Receptors Been Developed in Close Correlation to the Odorants Available in Nature?

Development of Analytical Methods

- Development of New Stable Isotope Dilution Assays for the Quantitation of γ - and δ -Lactones in Milk Chocolate
- Collaborative Study on Rapid Gluten Detection with Dipsticks

Correlation between the Chemical Structure and the Physical Properties of Biopolymers

- Optimisation of Micro-Scale Extension Tests of Wheat Gluten
- Functional Effects of Fractions of Lipase-Treated Wheat Lipids

- Kinetic Studies on the Effect of Baking Lipases
- Composition of Glutenin Macropolymer Gel Obtained from Wheat Flour
- Composition of HMW-Gliadins from Wheat as Affected by Free Thiol Groups
- Functional Properties of Rye Flour Constituents Determined by Reconstitution Studies
- Production of Gluten-Free Rye Bread by Means of a Proline-Specific Peptidase
- Use of AN-PEP to Produce Gluten-Free Beer
- Studies on the Specificity of ELISA Kits for Gluten Quantitation
- Studies on the Analysis of Gluten-Containing Cereals
- Production of Defined Protein Preparations from Wheat, Rye, and Barley for Clinical and Analytical Studies
- Development of Improved Reference Materials for Food Allergen and Gluten Analysis

Physiological Effects of Food Ingredients

- OR1A1- a Generalist Receptor for Key Food Odorants with Different Chemical Structures
- A Single Odorant Receptor Explains a Specific Anosmia for p-Cresol
- Investigations on the Influence of Copper on the Interaction of Key Food Odorants with Odorant Receptors

Food Composition Tables

- Ancient Wheat Species Rediscovered – Nutritional Data for Einkorn (*Triticum Monococcum*) and Emmer (*Triticum Dicoccum*)