

**The 10th International Conference on Water in Food
(EuroFoodWater2018; EFW2018), September, 19-21, 2018,
at the Conference center of the Czech Association of
Scientific and Technical Societies, Prague**

SCIENTIFIC PROGRAMME

1st Day – Thursday, 20th of September, 2018

9:00–9:20

Opening of the conference

Dr. Milan HOUSKA (Food Research Institute Prague)

Prof. Heinz-Dieter ISENGARD (University of
Hohenheim, Germany)

Session Ia:

***Water structure and interactions in food and
biological systems***

Chaired by: **Prof. Mohamed MATHLOUTHI**
(University of Reims and Association EFW, France)

9:20–10:00

**PL1: INNOVATIVE FREEZING PROCESSES ASSISTED BY
EXTERNAL ELECTRO – MAGNETIC FIELDS AND
ASSESSMENT OF FREEZE DAMAGE IN FROZEN FOODS; AN
OVERVIEW.**

**Le-BAIL Alain, JHA Piyush Kumar, SADOT Mathieu, JURY
Vanessa, CURET Sébastien, CHEVALLIER Sylvie, ROUAUD
Olivier, HAVET Michel, ELIASSON Lovisa, XANTHAKIS
Epameinondas, HUEN Julien, MATULLAT Imke**

10:00–10:20

**OC1: PREDICTIVE INVESTIGATION OF THE INTERACTIONS
IN AQUEOUS SOLUTIONS CONTAINING POLYOLS**

**Oumar TOURE, Baptiste BOIT, Claude-Gilles DUSSAP,
Olivier BAUDOUIN, Louis CAMPAGNOLO**

10:20–10:40

**OC2: KINETICS OF AROMA SORPTION AND ITS IMPACT ON
EDIBLE FILM PROPERTIES AS A FUNCTION OF RELATIVE
HUMIDITY**

**Benbettaieb, N., O'Connel C., Seuvre, A.M and
Debeaufort, F.**

10:40–11:20

***Coffee break, Posters & Exhibition
(Czech Chemical Society Hall)***

SESSION Ib: *Water structure and interactions in food and biological systems*

Chaired by: **Assoc. Prof. Daniel HĂDĂRUGĂ**
(Polytechnic University of Timișoara, Romania)

11:20–11:40

OC3: BIOACCESSIBILITY STUDY OF CALCIUM AND VITAMIN D3 CO-MICROENCAPSULATED IN W/O/W DOUBLE EMULSIONS

Cristian Dima, Stefan Dima

11:40–12:00

OC4: ROLE OF SACCHARIDES ON THERMAL STABILITY OF PHYCOCYANIN IN AQUEOUS SYSTEMS

Marco Faieta, Alessandro Di Michele, Lilia Neri, Paola Pittia

12:00–12:20

OC5: FROM QUANTUM CHEMISTRY TO THE QUALITATIVE UNDERSTANDING OF THE INTERACTIONS IN COMPLEX AQUEOUS MIXTURES

Oumar TOURE, Claude-Gilles DUSSAP

12:20–12:40

OC6: INTRINSIC FUNCTIONAL PROPERTIES PREDICTION OF AQUEOUS SOLUTIONS OF MALTODEXTRINS - A MOLECULAR WEIGHT DISTRIBUTION APPROACH

Nicolas Descamps, Maciej Starzak, Jean-Michel Roturier, Maryline Guillemant

12:40 – 14:00 **Lunch**

Session IIa: *Water activity and the shelf-life of Food products*

Chaired by: **Prof. Lisa MAUER** (Purdue University, USA)

14:00–14:40

PL2: WATER IN FOOD STRUCTURES – WATER ACTIVITY AND IMPACT

Yrjö ROOS

14:40–15:00

OC7: PHYSICAL STABILITY OF SOLID FOOD PRODUCTS: DEVELOPMENT AND APPLICATIONS OF MATERIAL SCIENCE WITHIN NESTLÉ SINCE 30 YEARS

Vincent MEUNIER

- 15:00–15:20 **OC8: SPRAY-DRYING OF PROTEIN / POLYSACCHARIDE COMPLEXES: DISSOCIATION OF THE EFFECTS OF SHEARING AND DEHYDRATION**
Jian Wang, Faydi Maoulida, Chedia Ben Amara, Emilie Dumas, Adem Gharsallaoui
- 15:20–15:40 **OC9: EFFECT OF WATER ACTIVITY AND PHYSICAL STATE OF SUGARS AND POLYOLS ON THEIR PROCESSABILITY**
Mohamed MATHLOUTHI and Pierrick DUFLOT
- 15:40–16:20 **Coffee break, Posters & Exhibition (Czech Chemical Society Hall)**
- Session IIb: Water activity and the shelf-life of food products**
Chaired by: **Prof. Bo JIANG**
(Jiangnan University, Wuxi, China)
- 16:20–16:40 **OC10: MOISTURE-MEDIATED INTERACTIONS IN COMPLEX INGREDIENT BLENDS: CASE STUDIES OF SEASONING BLENDS**
Lisa J. MAUER, Abigail Sommer
- 16:40–17:00 **OC11: WATER ACTIVITY VARIATION OF SUGAR ISOMERS AND ASSOCIATED BENEFITS IN FOOD APPLICATION**
Leon Zhou, Leslie Kleiner, Chandani Perera
- 17:00–17:20 **OC12: THE EFFECT OF WATER VAPOR ON SPRAY-DRIED DAIRY POWDERS: SURFACE AND BULK.**
V. Maidannyk, D. McSweeney, S. Montgomery, N. McCarthy, M. Auty
- 17:20–17:40 **OC13: ALTERING THE CRYSTALLIZATION TENDENCY OF AMORPHOUS SUCROSE UTILIZING POLYMERS, POLYPHENOLS, EMULSIFIERS, SUGARS, SALTS, AND OTHER CO-FORMULATED ADDITIVES**
Adrienne Voelker, Collin Felten, Alpana A. Thorat, Laurent Forny, Vincent Meunier, Lynne S. Taylor, Lisa J. Mauer
- 18:00 – 19:30 **CULTURAL VISIT IN PRAGUE**
- 19:30 **CONFERENCE DINNER**

2nd Day –Friday, 21st of September, 2014

Session IIIa:

Water analysis and identification of food

Chaired by: **Heinz-Dieter ISENGARD** (University of Hohenheim, Germany)

9:00–9:40

PL3: ILLLEGAL WATERING OF WINE – SOPHISTICATED TECHNIQUES REQUIRED TO ADDRESS AN HISTORIC ISSUE
Alexander BERNREUTHER

9:40–10:00

OC14: ANALYSIS OF WATER BY ISOTOPES IN ORDER TO DETERMINE THE AUTHENTICITY OF SUGAR & SPECIALITY SUGARS – DETERMINATION OF CARBOHYDRATE SOURCE & GEOGRAPHICAL ORIGIN
Andreas G. Degenhardt

10:00–10:20

OC15: MOISTURE CONTENT EVALUATION FOR HIGHLY HYDROPHOBIC NATURAL COMPOUND MIXTURES / CYCLODEXTRIN COMPLEXES BY THERMAL METHODS
Daniel I. Hădărugă, Nicoleta G. Hădărugă, Geza N. Bandur

10:20–11:10

Coffee break, Posters & Exhibition,

Session IIIb:

Water analysis and identification of food

Chaired by: **Dr. Alexander BERNREUTHER**
European Commission, DG Joint Research Centre, JRC Unit F.4
(Fraud Detection & Prevention), Geel, Belgium

11:10–11:30

OC16 UNVEILING THE MECHANISM OF THE OCCURRENCE OF BREAKAGE IN BISCUITS DURING STORAGE AND MEANS TO MITIGATE THIS RISK
LE-BAIL Patricia, BEDAS Marion, JONCHERE Camille, RIBOURG L., COURCOUX Philippe, JAILLAIS Benoit, OGE Anthony, GUIHARD Luc, LE-BAIL Alain

11:30–11:50

OC17: IMPACT OF ENRICHMENT WITH EGG - DERIVED MATERIALS ON WATER STATUS OF GLUTEN-FREE RICE PASTA STUDIED BY LOW-FIELD NMR AND THERMOGRAVIMETRIC ANALYSIS
Magdalena Witek, Ireneusz Maciejaszek, Krzysztof Surówka

11:50 – 12:10

OC18: KINETIC ANALYSIS OF POULTRY FREEZE-DRYING USING INFRARED THERMOGRAPHY

Fito, P.J., Tomas-Egea, J.A.; Castro-Giraldez, M.

12:10 – 14:00

Lunch

14:00–14:20

OC19: IMPACT OF BROAD BEANS ADDITION ON RHEOLOGICAL BEHAVIOR OF WHEAT FLOUR BASED SOURDOUGHS

Livia Patrascu, Ina Vasilean, Iuliana Aprodu

14:20 – 15:00

Presentation of selected posters

15:00 – 15:15

Concluding remarks & closing of the conference