



## Bažant Postgraduate Conference

*Zoom Conference: <https://tinyurl.com/dasv4232>*

*Wednesday, 23 June 2021*

### Conference Programme

#### **9:00 Conference Opening**

##### **First Session**

**Chair: Ing. Jaroslav Tihon, CSc.**

**9:05** Ing. Jakub Crha: *Three Dimensional CFD Model of a Single Rising Bubble in Stagnant Liquids*

**9:20** Ing. Dominik Regner: *Multiphase Flow of Taylor Bubbles in Rectangular Microchannels*

**9:35** Ing. Jiří Štěrba: *Application of Hydrodynamic Cavitation in Brewing*

**9:50** Susmita Dolai, MSc.: *Solvent Assisted 2D Mesoporous  $g\text{-C}_3\text{N}_4$  Modification for Catalytic Application*

#### **10:05 Coffee Break**

##### **Second Session**

**Chair: Ing. Jan Sýkora, PhD.**

**10:15** Ing. Antonín Eder: *Modular Synthesis of Dendritic Amphiphiles*

**10:30** Ing. Martin Kurfirt: *Fluorinated Oligosaccharides as Probes for Studying Carbohydrate-Galectin Interactions*

**10:45** Ing. Vojtěch Hamala: *Synthesis and Cytotoxicity of Fluorinated Amino Saccharides*

**11:00** Ing. Anežka Komárková: *Supercritical Impregnation of Natural Extracts in Polymer*

**11:15** Ing. Ondřej Pleskač: *Selective Enzymatic Hydrolysis of Triglycerides in Supercritical Carbon Dioxide in Continuous-Flow Packed-Bed Reactor*

#### **11:30 Lunch Break**



### Third Session

Chair: Ing. Vladimír Ždímal, Dr.

**12:00** Nirmal Parmar, MSc.: *Ionanofluids Prepared from a Series of Ionic Liquids: Preparation, Heat Capacity Measurement and Advanced Data Analysis by Mathematical Gnostics*

**12:15** Ing. Lenka Michálková: *NMR Metabolomics in Toxicology: Effect of NPs Inhalation on Blood Plasma and Exhaled Breath Condensate Profiles*

**12:30** Ing. Karolina Salvadori: *Electrochemical Investigation of Ureido-Sulfonamidic Receptors, Supramolecular Structures for Binding Phosphates*

**12:45** Mgr. Radek Lhotka: *Ambient Organic Aerosol Origin at Rural Background Site in the Czech Republic*

**13:00** Ing. Lenka Suchánková: *The Influence of Air Humidity on the Optical Properties of Aerosol Particles*

**13:15** *Coffee Break*

### Fourth Session

Chair: RNDr. Radek Fajgar, CSc.

**13:30** Ing. Matěj Hušek: *New Perspectives for Sewage Sludge Treatment*

**13:45** Ekaterina Korotenko, MSc.: *Optimization of Acid Extraction and Recovery of Metals from Municipal Solid Waste Incineration Fly Ash*

**14:00** Ing. Tomáš Ružovič: *Efficiency of Mercury Vapour Removal from Model Gases by Means of Sulfur Impregnated Sorbents*

**14:15** Ing. Anastasia Shtukaturova: *Material Flow Analysis of Textile Waste: A Case Study of the Czech Republic*

**14:30** Ing. Vít Šrámek: *High Temperature Removing of Halogenated Compounds from Pyrolysis of Waste Plastic Polymers*

**14:45** *Coffee Break*



**Fifth Session**

**Chair: Ing. Karel Soukup, Ph.D.**

**15:00** Ing. Simona Lucáková: *Electrocoagulation of Microalga Chlorella vulgaris in Laboratory and Bench Scale*

**15:15** Ing. Markéta Spáčilová: *Removal of Contaminants from Water*

**15:45** Ing. Jan Čížek: *Separation of Racemic D,L-Tryptophan Using Chiral Membranes*

**16:00** Mahdi Bourassi, MSc.: *Catalytic Wet Air Oxidation of Antibiotics over Supported Platinum on Different Supports Fractions Based CeO<sub>2</sub> and ZrO<sub>2</sub>*

**16:15** *Conference Closing*

**17:00** *Conference Winners Announcement*