The CEFSER coordinator, Prof. Biljana Škrbić, have strong background in coordination of national and international multipartner projects gathering experienced and early-stage researchers from the Faculty of Technology and other important regional institutions in the joint research within the area of food quality and safety, as well of the environmental monitoring and risk assessment. Besides CEFSER, the ongoing projects coordinated by Prof Škrbić are:

- Sources identification and correlations amongst the elements and organic compounds in abiotic and biotic matrices: risk analysis and a contribution to the monitoring and improvement of the environmental status, No. 152001B funded by the Serbian Ministry of Science an Technological Development, 2008-2010
- Heavy metals in the environment as a consequence of the anthropogenic activities, SERBIAN – SLOVENIAN TECHNOLOGY CO-OPERATION, 2010-2011
- Comparison of various analytical and chemometric methods, SERBIAN –HUNGARIAN INTERGOVERMENTAL S&T PROGRAMME, 2010-2011

The CEFSER has strong links with excellent research institutions from EU Member States. Some of them support the CEFSER project enabling the knowledge transfer through trainings, visits, joint publications and joint preparation of the research project proposals.

Our laboratory is opened for new PhD students, new research activities and new partners.

If you wish to join us in the research or to learn more about the analysis on the outstanding analytical systems, please contact us due to reserve your time with us!

Proposals and expression of interests for the joint research you may forward to the CEFSER coordinator by mail, email or fax:

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The latest information on the CEFSER activities and results you might find on the official site

www.tf.uns.ac.rs/CEFSERweb/CEFSERi ndex.htm

EC Project Supervisor: Dr. Irmela Brach





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Unique and Modern
WBC Centre for Joint
Research on the
Chemical Contaminants
in Food and the
Environment





CEFSER is unique Western Balkan Country (WBC) Center of Excellence in Food Safety and Emerging Risks established during the FP7 project no. 229629. It emerged from the Laboratory for Chemical Contaminants in the Environment (LabCHEMCONT) established two decades ago and from the Laboratory for Chemical Contaminants in food found a decade ago; both Labs are found by Prof. Biljana Škrbić at the Faculty of Technology, University of Novi Sad, Serbia,

The laboratory involved in the CEFSER project consists of 5 PhD, 1 MSc and 4 PhD students.

The CEFSER laboratory possesses two outstanding instruments procured during the project:



• Thermo Scientific UHPLC Accela - TSQ Vantage MS/MS, and



• Thermo Scientific UHPLC Accela – Exactive MS with Orbitrap technology

These instruments are unique for the whole WBC region.

These systems, particularly their mass spectrometers have unique features that separated them from the similar instruments available at WBC region.

Namely, triple quadrupole TSQ Vantage has resolution that is continuously adjustable to better than 0.1 Da peak width across the entire mass range. Combined with a robust new ion source, second generation (G2) ion optics and hyperbolic quadrupoles, the Thermo Scientific TSQ Vantage[™] delivers the highest sensitivity with the lowest chemical noise. Exactive™ represents a high resolution mass spectrometer with patented Orbitrap technology which always provides high resolution and accurate masses in all modes of operation. It provides ultra high resolution of 100,000. Fully compatible with U-HPLC, Exactive™ is ideal for solving the most demanding analytical including complex challenges, samples containing pesticides, metabolites or other target compounds.



Moreover, the laboratory is equipped with atomic absorption spectrometer with a graphite tube (GTAAS), gas chromatograph equipped with flame-ionization detector (GC/FID), and liquid chromatograph with UV and diode array detector (HPLC/UV-DAD)..

The achievements of the LabCEHMCONT team are internationally well recognized for expertise on detecting and evaluating the presence and risks of various chemical contaminants in food and the environment. Hereafter is the list of few selected articles published recently in the prestigeous international journals:

- B. Škrbić, K. Szyrwińska, N. Đurišić-Mladenović, P. Nowicki, J. Lulek, Principal component analysis of indicator PCB profiles in breast milk from Poland, Environment International, In press, 2009, doi:10.1016/j.envint.2009.04.008.
- B. Škrbić, S. Milovac, D. Dodig, B. Filipčev, Effects of hull-less barley flour and flakes on bread nutritional composition and sensory properties, Food Chemistry, 115, 982-988, 2009.
- •R.V. Malbaša, **S.D. Milanović**, **E.S. Lončar**, M.S. Djurić, M.Đ. Carić, M.D. Iličić Lj. Kolarov. Milkbased beverages obtained by Kombucha application. Food Chemistry, 112, 178-184, 2009.
- B. Škrbić, Z. Predojević, Levels of organochlorine pesticides in crops and related products from Vojvodina, Serbia: Estimated dietary intake, Arch. Environ. Contam. Toxicol., 54, 628-636, 2008.
- B. Škrbić, N. Đurišić-Mladenović, Principal component analysis for soil contamination with organochlorine compounds, Chemosphere 68, 2144-2152, 2007.

