
Specialized Team for Advanced Research on Separation Science - STARSS

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The aim of the project CZ.02.1.01/0.0/0.0/15_003/0000465 - Specialized Team for Advanced Research on Separation Science (STARSS), under the OPVVV scheme of excellent teams, is to introduce new and develop advanced separation techniques belonging to the group of chromatographic and electrophoretic methods and methods for sample preparation prior to analysis. The STARSS project improve the international quality of research and its results through the long-term involvement of high-quality senior researchers, new employees and an excellent Key Foreign Researcher, who has extensive experience in managing scientific and research work in the area of analytical chemistry in the USA. The modernization of infrastructure and the material and technical equipment of the new research team will facilitate the creation of knowledge with potential to produce excellent and innovative results. The international dimension will be strengthened by intensive scientific collaboration with selected leading research organizations abroad in the area of separation science. The project emphasis the principles of internationalization, excellence, and support for the target group and – by extension – it will support the foundation of a specialized Centre of Excellence for Separation Science.

Selected outputs

- Kučerová K, Kujovská Krčmová L, Matysová L, Solich P. Could urinary retinol be used as a new biomarker of kidney damage? *Trends Anal. Chem.* 2017; 95: 57-61. /IF = 7,03/ (D1 - Analytical Chemistry).
- Sanchez R, Horstkotte B, Fikarová K, Sklenářová H, Maestre M., Miro M., Todoli J. Fully Automatic In-Syringe Magnetic Stirring-Assisted Dispersive Liquid Liquid Microextraction Hyphenated to High-Temperature Torch Integrated Sample Introduction System-Inductively Coupled Plasma Spectrometer with Direct Injection of the Organic Phase. *Anal. Chem.* 2017, 89(6): 3787-3794. /IF = 6,042/ (D1 – Analytical Chemistry).
- Háková, M.; Havlíková, L. C.; Chvojka, J.; Erben, J.; Solich, P.; Švec, F.; Šatínský, D. A comparison study of nanofiber, microfiber, and new composite nano/microfiber polymers used as sorbents for on-line solid phase extraction in chromatography system. *Anal. Chim. Acta*, 2018, 1023: 44-52. /IF = 5,123 / (D1 - Analytical Chemistry).
- Plachká K., Švec F., Nováková L. Ultra-high performance supercritical fluid chromatography in impurity control: Searching for generic screening approach. *Anal. Chim. Acta*, 2018, 1039: 149-161. /IF = 5,123 / (D1 - Analytical Chemistry).
- Khalikova, M. A.; Lesellier, E.; Chapuzet, E.; Šatínský, D.; West, C., Development and validation of ultra-high performance supercritical fluid chromatography method for quantitative determination of nine sunscreens in cosmetic samples. *Anal. Chim. Acta* 2018, 1034: 184-194. /IF = 5,123/ (D1 - Analytical Chemistry).