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Сообщаем Вам, что в понедельник **7 мая 2018 г.** в Институте геохимии и аналитической химии им. В.И. Вернадского РАН состоится заседание Московского семинара по аналитической химии

Начало заседания в 15 часов

Докладчик- профессор Богуслав Бушевский, Польша

Bogusław Buszewski

Bioanalytics from Micro- to Nano- Dimension.

Professor Dr. Bogusław Buszewski graduated at the Maria Curie Skłodowska University, Lublin. In 1986 he has received PhD degree and in 1992 the Doctor of Sciences (habilitation) degree. In 1994 he has received professor position in Nicolaus Copernicus University, Toruń. He has been Humboldt Fellow at Tübingen University (Germany) and visiting professor at several universities in Europe, Asia and the USA. His main scientific interests are concerned with chromatography and related techniques, spectroscopy (HPLC, GC, CZE, MS), adsorption, sample preparation, environmental and bioanalysis (metabolomics, proteomics, biomarkers), nanotechnology and chemometrics. He is author or co-author of 15 books, patents and more than 500 scientific papers (over 9.000 citations, h=44) and member of the editorial boards of 26 national and international journals. Prof. Buszewski is the president of the *Central European Group for Separation Sciences* and the chairman of the *Committee of Analytical Chemistry of Polish Academy of Sciences*. He is a member of Polish Academy of Sciences and was awarded by numerous national and international organizations (including *Doctor Honoris Causa* multiple).

(Аннотация доклада приведена ниже)

Проезд: ст. метро «Ленинский проспект», далее трол. 7 до ост. «Дворец детского творчества» или ст. метро «Университет», далее авт. А до ост. «Дворец детского творчества», трол. 28 до ост. «Университетский проспект». Схема проезда: [приведена здесь...](#)

Регистрация участников семинара начинается в 14⁰⁰. Для входа в институт необходимо иметь при себе паспорт. Участники семинара гостиницей не обеспечиваются.

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Bioanalytics from Micro- to Nano- Dimension

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The biologically active compounds are present in biological samples in a relatively low concentration levels. Hence, an essential step is the isolation from complex matrices (whole blood, tissue) and enrich them before the final determination. From a medical point of view, the routine analysis of xenoestrogens, which are one of the causes of cancer, generates a lot of problems. Nowadays, interest of the analytics of this group of compounds need to be developed effective analytical methodologies and procedures for biological monitoring of xenoestrogens and their derivatives and determination of their biotransformation pathways in the bloodstream.

Solid phase extraction (SPE) with a new generation sorbents (e.g. imprinted polymers, nanoparticles with ferromagnetic properties and shell structure) and its miniaturized form solid phase microextraction (SPME) with a new generation fibers are a good alternative for implementation of multidimensional separation techniques (LC×LC-MALDI-TOF/MSn). To enlarge specificity/selectivity, sorbents will be modified with appropriate chosen molecules (MIPs – Molecularly Imprinted Polymers), which will create a molecular recognition system (host – guest) or monolithic columns for SPE coupled on-line with micro- and/or nanocolumns for micro-liquid [micro-LC], electro-chromatography (CEC) or capillary electrophoresis (CZE). Fundamental research are focused on two main areas: (i) macromolecular and supramolecular chemistry and research of the relationship between the structure and properties of polymers and (ii) biotechnology combined with enzymatic applied microbiology. It gives the possibility to track the impact of the enzyme-substrate or antigen-antibody complexes in biological systems. Such approach allows to increase the selectivity and reduce the limit of detection of analyzed compounds as well as automation of determination process.

Acknowledgements

The work was financially supported by the National Science Centre in the frame of the project:Maestro 6, No. 2014/14/A/ST4/00641 (2015-2018).
