

Emerging Contaminants and their Transformation Products in the Environment:

Sampling strategies - Sample preparation - Identification and structure elucidation by Advanced Mass Spectrometry Based Techniques

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In recent years, there is a growing awareness of the risks related to the emission of so-called **Emerging Contaminants (ECs)** or “new” *unregulated contaminants*, in the environment. ECs are a structurally diverse and heterogeneous group of chemical compounds that are not currently covered by existing regulations or legislation, have not been studied widely or not included in routine monitoring programs and are believed to pose a threat to environmental ecosystems. Generally, pharmaceuticals and personal care products (PPCPs), hormones, perfluorinated compounds, UV filters, pesticides and their transformation products (TPs), plasticizers, endocrine disruptor compounds (EDCs) etc are included in this group. In recent years, researches on all branches of science and technology have been carried out on occurrence, fate and risks of ECs in the environment.

In light of the above, the proposed list of lectures aims to introduce students to the range of subjects from the sources of ECs and their environmental behavior, to their occurrence, fate and risk assessment as well as to the technologies and strategies available for their sampling, analysis and screening in the environment.

These lecture series will be held over five consecutive days covering:

Lecture 1: Emerging Contaminants and their Transformation Products

Lecture 2: Sampling strategies for determination of emerging contaminants: General aspects

Lecture 3: Passive Sampling procedures

Lecture 4: Sample preparation for determination of emerging contaminants in environmental matrices: General aspects

Lecture 5: Sample preparation: Liquid samples

Lecture 6: Sample preparation: Solid samples

Lecture 7: Validation and Quality Assurance of the methods: Part I

Lecture 8: Validation and Quality Assurance of the methods: Part II

Lecture 9: Mass spectrometry: General concepts

Lecture 10: Strategies for investigation of emerging contaminants by mass spectrometric techniques: Part I

Lecture 11: Strategies for investigation of emerging contaminants by mass spectrometric techniques: Part II

Lecture 12: Occurrence of emerging contaminants in groundwater and surface waters

Lecture 13: Occurrence of emerging contaminants in wastewaters

Lecture 14: Risk assessment and ecological impacts of emerging contaminants in the environment

Lecture 15: Concluding remarks

Termin	Dzień tygodnia	Godzina	Miejsce
16.06.2014	Poniedziałek	9.00 – 13.00	Minicentrum Konferencyjne (Luwr)
17.06.2014	Wtorek	9.00 – 14.00	Minicentrum Konferencyjne (Luwr)
18.06.2014	Środa	9.00 – 14.00	Minicentrum Konferencyjne (Luwr)