

6th INTERNATIONAL CONFERENCE ON EMERGING CONTAMINANTS (EmCon2018)

This year the emerging contaminants conference took place on 25th to 28th June 2018. This international conference occurs every three years in a different country each time. This year, Oslo has been the city elected. The conference was organized with a huge success by NIVA (Norwegian Institute for Water Research) which is the Norway's leading institute for fundamental and applied research on marine and freshwaters. Their research comprises a wide array of environmental, climatic and resource-related fields. The conference was also sponsored by Wellington laboratories, Agilent and Matriks Kjemisk Toknologi.

EmCon2018 gives the opportunity to discuss and hear the latest research news on all aspects of emerging contaminants in the environment. It covered all aspects of emerging contaminant research whilst placing focus on microplastics, nanomaterials, pharmaceuticals and personal care products, the presence of emerging contaminants in the Arctic, new analytical techniques and technologies and the emerging contaminants on the horizon.

The conference counted with the participation of three invited speakers from different parts of the world. About 200 attendees coming from universities, laboratories, research groups or from the industry to meet and share their experiences and knowledge about their studies of new and emerging contaminants.

The conference starts on Monday 25th with the welcome session and the three sessions of the invited speakers. The first speaker was Dr. Katrin Vorkamp who works in the department of Environmental science in the Aarhus University and talks about emerging organic contaminants in Arctic ecosystems. Later on, Alistair Boxall, professor in environmental science on the York university did his session about urban environments and megacities. Finally, Dr. Edward Kolodziej, associate professor in civil and environmental engineering of university of Washington did his talk about storm water-derived chemicals and ecosystem health.

On Tuesday 26th, the platform sessions started and were divided into different topics throughout the day. The first platform session was about Arctic ecosystems and how the emerging contaminants coming from the wastewater are reaching the Arctic zones, focusing the talks in Arctic treatment water plants and rivers that cross urban areas. This platform session was followed by the second session about urban environments and megacities, in which they talked about how to monitor the new pollutants and deduce their effects through predictive modelling systems. The next session was about waste, wastewater, recycling and reuse and it could be resumed in how efficient the water purification plants are with the elimination of these emerging pollutants and how healthy is the drinking water. The final session of the day was about microplastics, a topic that is being talked about in the last month in the scientific world, and the different speakers presented the analysis and quantification of microplastics in a wide range of sources such as water, drinking water, fish tissues, microorganisms, etc.

Wednesday 27th, was a day in which the sessions were focused on how to analyse the emerging pollutants. The two platform sessions presented that day were about new contaminants on the horizon and non-target analyses. Different analysis methods were proposed by the research groups in which they studied thoroughly how to carry out the study of a complex mixture of unknown pollutants in a complex matrix and at the same time which is the ideal technique to do it, arriving at the conclusion that for the non-target analysis, the best technique to use is the MS/MS detection.

At the end of the day, Agilent and PerkinElmer did two talks related with the topics of the conference (emerging contaminants and microplastics) and explaining with of their instruments are the most suitable for different kind of analysis.

The last day of the conference, Thursday 28th, the platform session topics were ecotoxicology and wastewater forensics. The talks were focused on which are the effects of this emerging pollutants on the living organisms due to the most of these pollutants are persistent (POPs).

During the four days that the conference lasted, there were also sessions in which all the posters presented by the participant members could be commented.

This conference was an excellent opportunity to know different research groups and create new collaborations with other universities, learning new skills regarding analytical chemistry and emerging contaminants from different points of view.

Mireia Singla Milà

(IQS School of Engineering)