

Microplastics: The path from consumer products to environmental distribution

Wednesday 31st October 2018

Auditorium, Monte Verità, Ascona

Time 8.30 - 10.00 pm, in English with simultaneous translation into Italian

Free entrance, reservation required: info@csf.ethz.ch, tel. 091 785 40 54/56



8.30 - 9.30 pm: Presentation

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9.30 - 10.00 pm: Questions from the public

Plastic is an integral part of our daily lives in modern society, ranging from high-tech medical devices to clothing to single-use packaging for food and products. Consumers are often at the nexus of plastic waste reduction: they can be encouraged to use less plastic (for example, no bags given at grocery stores), or through effectively recycling, such as PET drink bottles. There may be other ways to help reduce plastic in the environment, such as substitution of some traditional plastics for biodegradable plastic or through better material design to reduce microplastic formation, such as developing textiles which shed fewer fibers. Using a life cycle thinking approach, one can take a more holistic view on the benefits which can be derived using various material. Never the less, some plastic inevitably ends up as mismanaged waste, which directly enters the environment. Over time, this plastic can break down by sun irradiation and/or mechanical forces into ever-smaller pieces: microplastics. While microplastics have received a lot of attention in the mass media recently, during this presentation we will take a balanced view of the sources of (micro)plastic waste, how they are distributed in the environment, and what is known about their effects. Although scientific research on the topic has only begun intensifying recently, it is known that microplastics can be found in many diverse environments, ranging from densely populated urban centers to remote beaches to the deep sea. While the occurrence of microplastic is seemingly high globally, in order to establish the level of risk for any environmental pollutant, one needs to not only consider exposure but also hazard. Determining adverse effects is not always easy or straight forward, so during the presentation we tackle the way in which one can put the risks of plastic usage into context, and where environmental chemists and biologists currently stand on this issue.

This public event is presented in the scope of the international conference “Nano- and microplastics in technical and freshwater systems”, which will take place from 28th to 31st October 2018 at the conference centre Monte Verità and is organized by the Department for Environmental Sciences of the ETH Zürich in collaboration with the Congressi Stefano Franscini/ETH Zürich (www.csf.ethz.ch).