Environmental Chemistry: Future Challenges

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Since the recognition of the environmental effects of chemicals such as persistent organic pollutants, pesticides or heavy metals, environmental chemistry has been busy keeping up with the requirements of legislators, regulators and the public [1]. Insights into the environmental effects of such substances has increased in the last decades while analytical capabilities have led to ever decreasing limits of detection. This has resulted in an increased public and political awareness, often resulting in banning of chemicals by regulators [2].

The future challenges of environmental chemistry lie in the necessity of maintaining the expertise to monitor or model legacy chemicals while at the same being able to detect and provide expertise to regulators on current and newly developed substances. Due to the large quantity and great diversity of substances, cost effective and fast methods are often required or demanded of environmental chemists.

Future challenges also lie in the interdisciplinary collaboration between environmental chemists and ecotoxicologist to provide the basis for chemical risk assessment as well as with regulators to provide answers to current challenges, including input into the safe development of novel substances. Along with the public to inform on public and environmental health issues.

[1] I. Werner, B. Hitzfeld, *Gaia*, **2012**, *21*, 217-224.
[2] Bundesamt für Umwelt, Magazin “die umwelt” 4/2018 – Von Chemie umgeben, 2018, https://www.bafu.admin.ch/bafu/de/home/themen/chemikalien/publikationen-studien/publikationen/magazin-die-umwelt-4-2018-von-chemie-umgeben.html