The occurrence and removal of the fluoro alkyl (PFAS) substances under boreal and arctic conditions

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Abstract

The occurrence of per- and polyfluoronated alkyl substances (PFAS) was evaluated based on samples of leachate and leachate sediment, and water in the environment surrounding a waste treatment facility in Norway. PFAS found in leachate varied between 13 ng/l to 17500 ng/l, PFOS showing the highest compound concentrations all above the environmental limit value. The PFAS is predominantly coming from the landfill leachate and less from leachate from the composting and biogas processes. The PFAS was to some extend removed in the treatment process.