

S40-3 Occurrence of pharmaceuticals in water sources and drinking water

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Since the 1990s, occurrence of pharmacologically active substances in water environment, which mostly comes from pharmaceuticals for human and livestock and their metabolites, has attracted attention in EU nations and U.S. Although concentration of the pharmaceuticals in water environment seems to be very low, their occurrence and behavior would be remarkable because they could affect on homeostasis of human nerve system and metabolic system. Moreover, some part of the pharmaceuticals could remain in drinking water due to their hydrophilic and/or persistent property. Thus it is needed to clarify their occurrence in the drinking water sources and behavior in the course of drinking water treatment systems for estimating possibility of human exposure. The authors have conducted following researches for providing further information for drinking water quality management: i) determination of monitoring priority of pharmaceuticals in water sources; ii) development of instrumental analytical methods; iii) field investigation of the occurrence in water sources and drinking water and; vi) experiment in removal capability of conventional and advanced water treatments. Recent progress in 'WHO working group meeting on pharmaceuticals and personal care products (PPCPS) in drinking water' would be also shown.