

Possible methods of removing PCBs from environment

Jaroslava Maroszová

*Faculty of Chemical and Food technology, STU in Bratislava, Slovakia, Radlinského 9,
Bratislava, Slovakia*

Polychlorinated biphenyls (PCBs) are physically and chemically very stable substances with serious negative effect on health. On the human organism, as well as on the surrounding environment. In addition to acute symptoms in the form of dermatoses or nausea, their toxicity is mainly chronic in the form of hepato-, nephro-, neuro-, immuno- and other toxicities, including hormonal disruption and disorders of the excretory system. Due to their optimal physico-chemical properties they were massively produced all over the world. An important producer of these substances was the plant in the east of Slovakia - Chemko Strážske. Following the identification of serious toxic effects on health and the environment, the production of PCBs has been phased out worldwide (in Czechoslovakia as one of the last countries in 1984). However, as a result of the ban on production and distribution, a large amount of these substances remained in the premises of the former plant and its surroundings, together with the by-products of their production, as a significant toxicological risk. It's hard to imagine that this issue has been ignored for more than 30 years. In January 2020, a state of emergency was declared in connection with the situation in Strážské. Subsequently, a series of measures was launched to eliminate this environmental burden. The Faculty of Chemical and Food Technology (FChPT) of Slovak University of Technology (STU) is significantly involved in solving the situation in Strážské as a partner of the Ministry of the Interior of the Slovak Republic and the Ministry of the Environment of the Slovak Republic.

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