

**OCCURRENCE OF POLYBROMINATED DIPHENYL ETHERS IN HOUSEHOLD DUST IN BOSNIA AND HERZEGOVINA**

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**Abstract**

Considering the amount of time people spend in their homes, workplaces, and indoor environments, human exposure to specific indoor pollutants can cause severe health issues. Indoor persistent organic pollutants are causing adverse health effects via dust ingestion and dermal absorption. Worldwide researchers have dedicated their attention to brominated flame retardants (BFRs) due to their ubiquitous occurrences in the environment. The aim of this study was to determine the occurrence and levels of brominated organic pollutants in indoor dust samples (n=40), collected from homes and indoor environments in three settlements from the entity of the Republic of Srpska in Bosnia and Herzegovina. The samples are prepared and analyzed by the method based on gas chromatography with mass spectrometric detection (GC-MS) for the presence of 7 polybrominated diphenyl ethers (PBDE). This research study will report for the first time the levels of 7 PBDE congeners analyzed in dust samples from households in the indoor environments of the Republic of Srpska, Bosnia and Herzegovina. The obtained results will be used for risk assessment which is of great importance in understanding the impact of PBDEs in household dust on human health.