

# Monitoring and Disperse-phase Distribution of Polychlorinated Biphenyls in Natural Water

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*This article presents the characteristic of contamination of natural water from Dnieper River in Kiev region by polychlorinated biphenyls (PCBs) on the results of the investigations, that were carried out during the period between 2011 and 2013 years. Total concentration of PCBs (29 congeners) ranged from 2.8 to 57.2 ng/dm<sup>3</sup>. These pollution levels were not high compared with other world's major rivers. Meanwhile, the predominance of congeners with number of chlorine atoms from 4 to 6 was recorded. Its proportion accounted for 74–99% of total content of PCBs. It was shown that about half of PCBs is associated with suspended particles: 20–31% — at thin and 22–32% — at rough fractions. 42–55% of PCBs are contained in water phase. Disperse-phase distribution of individual congeners depends on number of chlorine atoms in the molecule. The higher this number the lower water-soluble part of congener.*

**Keywords:** natural water, polychlorinated biphenyls, suspended particles, GC/MC, GC/ECD

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