Distribution of Chlorinated Biphenyls in Surface Waters of the Baltic and North Sea

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Individual chlorobiphenyl congeners (CBs) were analysed in water from the North Sea and the Baltic Sea. Single column gas chromatographic and multidimensional gas chromatographic techniques were used to separate the constituents of the complex extract. Characteristic concentrations of individual CBs in off-shore water were between <0.05 and 2 pg dm⁻³, and up to 50 pg dm⁻³ in coastal waters. High concentrations and different compositions of the CB mixtures were found in regions where oil platforms are located.

The most toxic (non-ortho Cl substituted) CBs and their mono-ortho Cl substituted derivatives were also determined. The sum of their concentrations was two to four times smaller than that of the other less toxic congeners.