

Content determination of PCBs in Black Sea fish

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Abstract Polychlorinated biphenyls (PCBs) are serious environmental pollutants and poisons for the living organisms. They are dissolved and accumulated in the adipose tissue in animals and humans. PCBs are found in dairy products, fish and meat. Sea fish and mammals accumulate PCBs in quantities that exceed many times those in water. Concentrations of PCBs have been determined of fish samples in different part of Bulgarian Black Sea coast in Varna region located in northeast Bulgaria. The PCBs content was determined in clean fish extracts by means of gas chromatography. The experimental results indicate presence of PCBs in all the investigated samples. All samples analyzed presented concentrations below the maximum allowed by the European Community regarding PCBs. The highest levels of PCBs (139.7 – 187.9 ng/g lw) were observed in European sprat. The concentrations of PCBs in all the collected samples were lower than the levels recommended by the European Union – 200 ng/g lw.

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