Distribution and Sources of PAHs in Soil of Wetland of the Yellow River Delta

Abstract

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The compounds of 16 polycyclic aromatic hydrocarbons (PAHs) were measured and identified by GC-MS in surface soil at 20 stations in working area of project Survey & Assessment of Wetland of the Yellow River Delta. The results showed that the total concentrations of PAHs ranged from 27.34 to 128.97 ng/g (dry weight). The enriched areas gradually reduced from west to east. The total contaminative level is not very high compared with the similar research of China. According to the varieties and aromatic rings distributions of PAHs, the contamination of human activities might be dominant source in this area. The risk assessment values for organic pollutants in soil showed that this area are at low ecological risk region, which might not exert significant potential damage to the organisms in this area.

Key words: the Yellow River Delta; wetland; PAHs; soil; distribution; source; risk assessment