

Poly Chlorinated Biphenyls (PCBs) and Polycyclic Aromatic Hydrocarbons (PAHs) in Marine sediment from Yellow Sea

Wan Seok Lee·Seung Heo·Pyung Joong Kim·Un Ki Hwang·Hyung Chul Kim·Seong Yoon Park·Kyung Ho An

West Sea Fisheries Research Institute, National Fisheries Research and Development Institute, Incheon, 400-420, Korea

황해 퇴적물 중 Poly Chlorinated Biphenyl과 Polycyclic Aromatic Hydrocarbon의 분포 특성

이완석 · 허승 · 김평중 · 황운기 · 김형철 · 박승윤 · 안경호

국립수산과학원 서해수산연구소

Abstract: The populations of 39 sample stations on five lines (A, B, C, D and E) were designed according to their latitude and that of the stations on three groups (Near china, Center and Near Korea) were grouped by distance of stations to coast. In this research, 16 kinds of PAHs and 23 congeners of PCBs were analyzed in sediment of Yellow sea. The line of the highest concentration on average of PAHs was C (393.9 ng/g) and that of lowest concentration on average of PAHs was D (224.5 ng/g). The stations that contained the highest (573.8 ng/g) and lowest (115.6 ng/g) PAHs were B1 and E7, respectively. The line of the highest concentration of average of PCBs was E (5.2 ng/g) and that of the lowest concentration on average of PCBs was A (1.6 ng/g). The stations that contained the highest (21.7 ng/g) and lowest (0.5 ng/g) PCBs were E7 and E1, respectively. The highest group on the concentrations of PCBs and PAHs were Near China group. The lowest concentration of PCBs and PAHs were center group and Near Korea group, respectively. The low correlation ($r^2=0.01495$) between the concentration of PAHs and that of PCBs showed that the sources of PCBs and PAHs were different. Both of the correlations between the concentration of them and total organic carbon (TOC) in sediment was low (PCBs, $r^2=0.0149$; PAHs, $r^2=0.0493$). The origin of PAHs in sediment of yellow sea was pyrolytic origin with investigation of diagnostic ratio.

Key words : Poly Chlorinated Biphenyls, Polycyclic Aromatic Hydrocarbons, Yellow Sea, diagnostic ratio

* 비회원, daphne@nfrdi.go.kr 032)745-0661

* 정회원, hckim@nfrdi.go.kr 032)745-0672