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# PATTERNS OF POLYNUCLEAR AROMATIC HYDROCARBONS (PAH) IN SEDIMENTS

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**SUMMARY**

The patterns of polynuclear aromatic hydrocarbons (PAH) in sediments were studied by Principal Component Analysis (PCA). Phenanthrene (P), fluoranthene (Fl), pyrene (Py), benzo[a]anthracene (BaA), chrysene (Chr), and benzo[a]pyrene (BaP) were used. Three patterns were found: type P, associated primarily with petroleum hydrocarbons, type Fl, from relatively clean marine sediments, and type Py+BaA+Chr+BaP, from industrialized areas. Aerial fallout appears to be the major source of PAH for the latter. There is a considerable variation in the PAH patterns obtained in different laboratories. PCA is a good tool for the study of PAH patterns.

*Key words:* polyaromatic hydrocarbons, sea sediments, environmental pollution, principal component analysis

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