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Evaluation of Hydrocarbons in Tissues of Bivalve Mollusks from the Red Sea Coast

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Abstract : The concentration of polycyclic aromatic hydrocarbons (PAH) in clam (A. glabrata) was examined in samples collected from Alseef Beach, 30 km south of Jeddah city. Gas chromatography-mass spectrometry (GC-MS) was used to analyse the 14 PAHs. The concentration of total PAHs was found to range from 11.521 to 40.149 ng/gdw with a mean concentration of 21.857 ng/gdw, which is lower compared to similar studies. The lower molecular weight PAHs with three rings comprised 18.14% of the total PAH concentrations in the clams, while the high molecular weight PAHs with four rings, five rings, and six rings account for 81.86%. Diagnostic ratios for PAH source distinction suggested pyrogenic or anthropogenic sources.

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