

Determination of polycyclic aromatic hydrocarbons in grilled meat.

ABSTRACT

Polycyclic aromatic hydrocarbons (PAHs) are primarily formed as a result of thermal treatment of food, especially grilling or barbecuing. In this study nine types of Malaysian popular grilled meat dishes were analyzed for toxic PAHs, i.e. fluoranthene, benzo(b)fluoranthene and benzo(a)pyrene using HPLC-FD. The differences in PAH concentrations among (charcoal, gas and oven grilling) were found to be significant ($p < 0.05$), ranging from 3.51 to 106 ng/g. Fluoranthene was found in all samples; the highest concentration of total PAHs was 132 ng/g found in beef satay and the lowest was 3.51 ng/g in oven grilled chicken.

Keyword: Polycyclic aromatic hydrocarbons (PAHs); Grilled meat; Carcinogen.