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## **The use of liquid smoke condensate in foods and its effect on health**

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**T**raditional smoking application using the smoke produced by burning woods has been utilized as a preservation technique for centuries. However, wood smoke generates some unfavorable compounds such as Polycyclic Aromatic Hydrocarbons (PAHs) upon pyrolysis, which occurs between 180 and 350 °C. These PAHs are generally known to be carcinogenic even though some of the PAHs are not actually considered as carcinogenic themselves but believed to be served as precursors. Benzo(a)pyrene, one of the important compounds listed among the PAHs, has been shown to cause birth defects when its concentration in foods exceeds 300 ppm. This fact brought some restrictions to PAH presence in commercially available smoked products in some countries including the European Union countries and the United States. The strictest restriction is applied within the European Union with 0.002 ppm allowance. On the other hand, smoke condensates have been used in food industry over three decades. Once water and wood smoke evaporates and goes through some separation and filtration steps, so called “liquid smoke condensate” is obtained. The preparation steps used during the production of liquid smoke condensate help avoiding tar and unfavorable compounds like PAHs. Recent studies have elucidated that liquid smoke foods has either no or trace amount of Benzo(a)pyrene present. This study aims to review the importance of using liquid smoke condensates in food products from health perspective as a replacement to traditional smoking due to the negative health implications of PAH containing traditionally smoked foods.

### **Biography**

Zayde Ayvaz completed her PhD in Ankara University, Turkey and additional postdoctoral study in The University of Auckland, New Zealand. She received Associate Professor degree at the age of 29. She has published more than 30 papers in peer-reviewed journals and has been serving as an editorial board member on more than 25 scientific journals. She currently works for Canakkale Onsekiz Mart University, Department of Marine Technology Eng. located in Turkey.

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