



# PAH Analysis

Polycyclic Aromatic Hydrocarbons (PAHs) are chemical compounds that consist of fused aromatic rings, and are one of the most widespread organic pollutants. Some are known or suspected carcinogens and are primarily formed by incomplete combustion of carbon containing fuels such as wood, coal, diesel and tobacco. They are also found in comets and meteorites and produced by volcanoes and forest fires.

Most PAHs do not dissolve readily into water but they stick strongly to soils and sediments. Major industrial sources of PAHs include primary metals processors, petroleum refineries, and paper, chemical and plastics manufacturers. There are more than a hundred PAHs and, because they have so many sources, PAHs are found widely throughout the environment. Some are known carcinogens, (benzo(a) pyrene was the first chemical carcinogen to be discovered) and others are suspected carcinogens.

PAHs can be analysed by several methods such as HPLC, GCFID or GCMS. HPLC is the preferred method if benzo(j) fluoranthene is required, as this compound will most likely co-elute with benzo(b/k)fluoranthene when analysed by GCMS and/or GCFID.

