



Chemical Fingerprinting; Extended analysis for PAH compounds (ChemFingSOIL+)



Exposure to Polyaromatic Hydrocarbons (PAH) can be a major health risk to humans and possess a threat to the environment. Sources are many from burning of fossil fuels and wood to anthropogenic industrial products. The numbers of PAH's compounds are huge and the potential toxicological effects differ widely from compound to compound. Correct identification and quantification is thus of utmost importance for evaluation of risks from exposure to this group of compounds. A new analytical tool expands the possibilities for identification of PAH's in soil and sediment samples to a new level. Polyaromatic hydrocarbons is a very large group of organic compounds consisting of unsaturated aromatic ring structures. Phenanthrene and anthracene with three rings are normally considered to be "starting" members of the PAH's.

PAH's can have both a natural and an antropogenic origin. PAH's forms e.g. major parts of crude oils and are as such to be found in many oil products (petrogenic origin). Incomplete combustion of fuels and of organic/ wooden materials also forms PAH's (pyrogenic origin). A detailed analysis of the PAH profile in a sample will in many cases reveal if the source behind the compounds is natural at pyrogenic/petrogenic antropogenic sources. The analysis for PAH's in environmental samples are of historical and economic reasons often reduced to packages of typically 7-16 individual PAH's all being unsubstituted PAH's. By extending the packages and including substituted compounds the possibilities for determination of the sources is vastly enhanced. These advanced and extended analytical possibilities are now also economic accessible. The new analytical tool ChemFingSOIL+ returns identification and quantification of more than 40 PAH's and groups of PAH's at very attractive price levels.

🔅 eurofins COMPOUND Naphthalene 1-methylnaphthalene 2-methylnaphthalene 2,6-Dimethylnaphthalene 2,3,5-TrimethyInapthalene 1.4.6.7-Tetramethylnapthalene Anthrancene Phenanth COMPOUND 2-Methylr 3,6-Dime Fluoranthene eurofins 1,2,6-trir Chrysene 1,2,6,9- 4-Methylchrysene Fluorer 6-ethylchrysene 1-Metr 1,3,6-Trimethylchrysene 1,7-dir Pyrene Acen: 1-methylpyrene Acen 4,5-Dimethylpyrene Ben: Benzo(a)anthracene Benz(a)pyrene Benzo(g,h,i)perylene Benzo(k)fluoranthene Dibenzo(a,h)anthracene Indeno(1,2,3-c,d)pyrene Dibenzothiophene 3-Methylbenzothiophene 2-Methylthianaphthene/2-methylbenzothiophene 4-Methyldibenzothiophene 4,6-Dimethyldibenzothiophene 4-Ethyl-6-methyldibenzothiophene

ChemFingSOIL+ offers identification and quantification of extended packages of PAH's. The uses are many:

- · Evaluation of exposure risks
- Tracking of sources behind the compounds
- · Control and follow-up on remediation activities
- · Improved possibilities for identification of natural sources behind identified PAH's

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