MEPS FOR POLLUTANTS AND SMALL VOLUME SAMPLES

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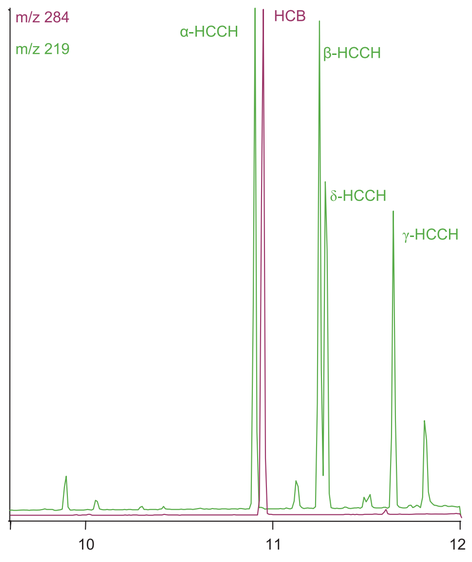
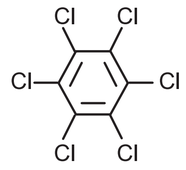
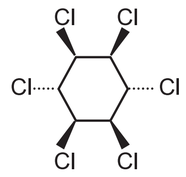
HCCH and HCB 5 ppb





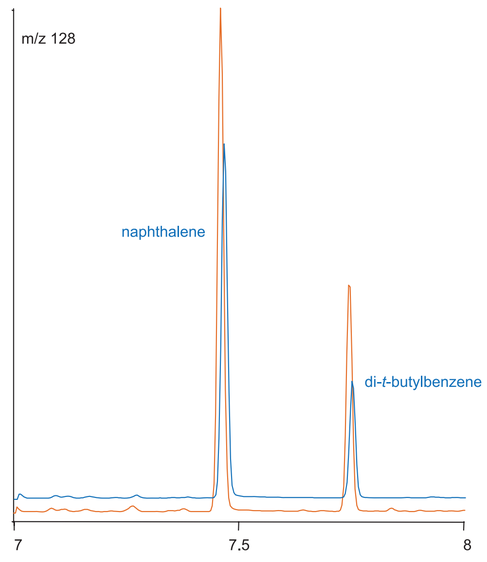
hexachlorobenzene (HCB)

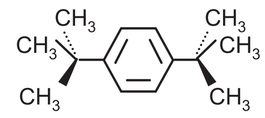


γ-hexachlorocyclohexane (γ-HCCH)

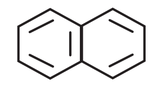
RECOVERY 55 - 88%

NAPHTHALENE 5 ppb





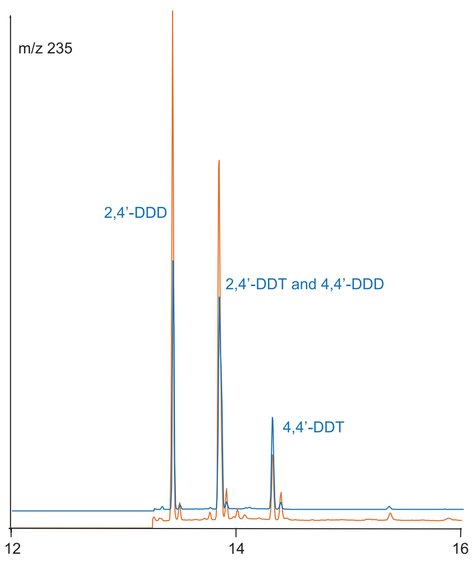
1,4-di-*t*-butylbenzene

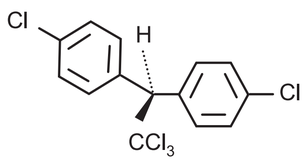


naphthalene

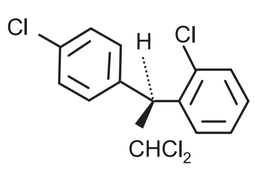
RECOVERY 60 - 80%

DDT and related compounds 1 ppb





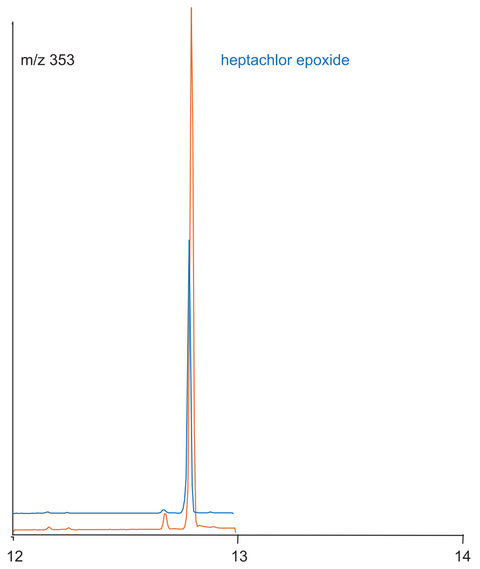
4,4'-DDT

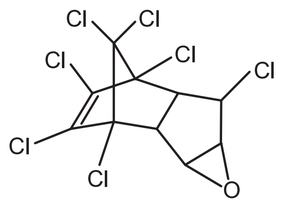


2,4'-DDD

RECOVERY 40 - 63%

HEPTACHLOR EPOXIDE 10 ppb

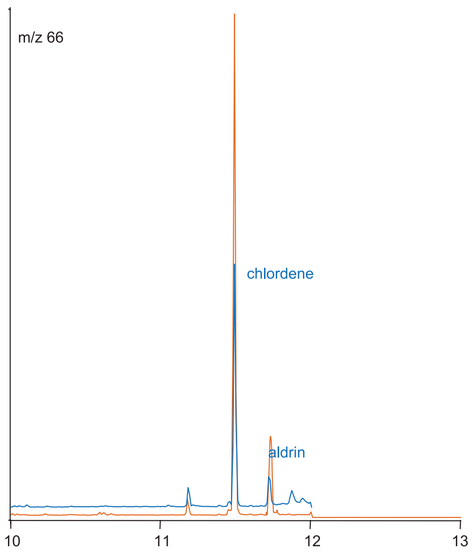


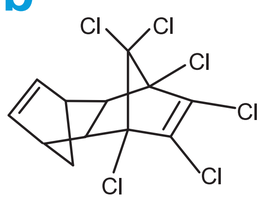


heptachlor epoxide

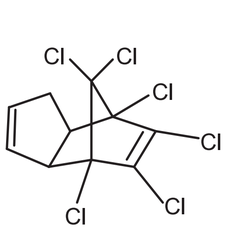
RECOVERY 82%

CHLORDENE and ALDRIN 1-10 ppb





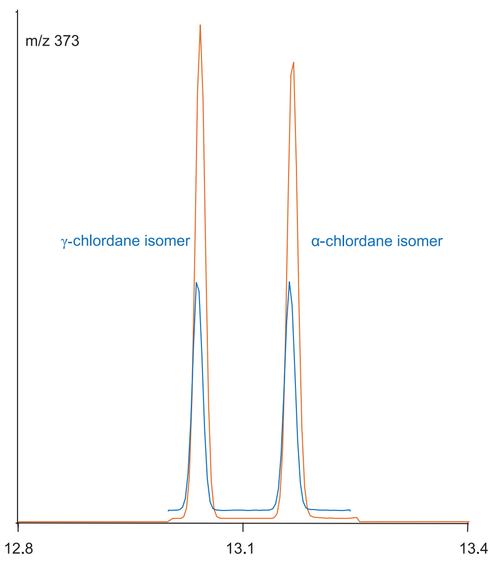
aldrin

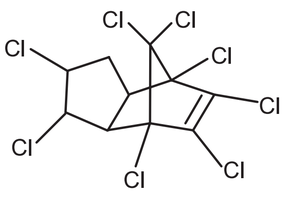


chlordene

RECOVERY 50 - 65%

CHLORDANE 5 ppb





chlordane

RECOVERY 30 - 56%

EXPERIMENTAL CONDITIONS

- *MEPS extraction was performed by diluting 100 µL of a 10-100 ppb standard with 900 µL of water.*
- *The whole sample was extracted on a C18 MEPS cartridge conditioned with methanol and water.*
- *The sorbent was dried and eluted sequentially with 10 µL of isopropanol and 10 µL of dichloromethane into the same vial.*
- *A 1 µL portion of the eluate was separated on a BPX5 30 m x 0.25 mm i.d. with a 0.25 µm film thickness (SGE Analytical Science) in a 6890 GC-5973N MSD (Agilent Technologies) fitted with an ETP 14642 electron multiplier.*
- *Injection was splitless at a temperature of 250 °C.*
- *The carrier gas was helium with a nominal flowrate of 1.3 mL/min in constant flowrate mode and a nominal inlet pressure of 10.8 psi.*
- *The oven temperature was programmed from 50 °C (held for 2 minutes) to 270 °C (held for 15 minutes) at 20 °C/min.*
- *The transfer line was at 280 °C.*
- *MS experiments were in selected ion monitoring mode with an ion dwell time of 200 msec.*
- *For online use, the 20 µL combined isopropanol-dichloromethane eluate should be injected using a large volume injector.*
- *The MEPS cartridge was recycled in excess of 20 times by washing with dichloromethane (2 x 20 µL) and methanol (2 x 20 µL).*
- *Recovery may be improved by modifying the sample with surface active agents and increasing the ionic strength of the aqueous sample.*
- *Pure standards shown in orange. Extracted samples shown in blue.*

For more chromatographic information visit www.sge.com or contact your SGE technical specialist.

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