

Figure 1 Flow diagram of liquid PCB waste incineration system.

● : Monitoring point for gas and water
 ▨ : Samples for combustion products analysis

ANALYTICAL SCHEME

10 grams of activated carbon was first extracted with acetone and then toluene using Soxhlet's extractor. According to Figure 2, the organic extracts were divided into four fractions.

Acid and base wash separated the extract basic and acidic fractions respectively. Acidic fractions were acetylated with acetic acid anhydride. The neutral fractions were separated into PCB and PCDD fractions with Silica and Alumina column chromatography(5).

Each fractions were analyzed by gas chromatograph (GC-ECD) Shimadzu GC-7A and mass spectrometer(GC-MS) JEOL JMS-DX303. The conditions are shown in Table 1. Two or three mass fragment ions were monitored for each compounds(6).

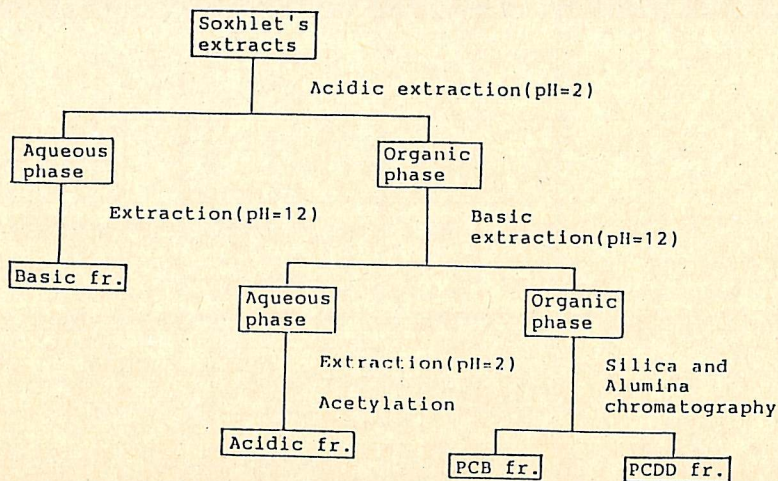


Figure 2 Analytical scheme for the determination of PCB, PCDD, PCDF, CP, and Pyridines.