4.1 Determination of ash and acid-insoluble ash

Recommended procedures

Determination of ash

Place about 3 g of the ground material, accurately weighed, or the quantity specified in the monograph, in a suitable tared dish (for example, of silica or platinum), previously ignited, cooled and weighed. Incinerate the material by gradually increasing the heat, not exceeding 450 °C, until free from carbon; cool, and weigh. If a carbon-free ash cannot be obtained in this way, exhaust the charred mass with hot water, collect the residue on an ashless filter-paper, incinerate the residue and filter-paper, add the filtrate, evaporate to dryness, and ignite at a temperature not exceeding 450 °C. Calculate the content in mg of ash per g of air-dried material.

Determination of acid-insoluble ash

Boil the ash for 5 minutes with 25 mL of hydrochloric acid (~70 g/l) TS; collect the insoluble matter in a sintered crucible, or on an ashless filter-paper, wash with hot water, and ignite at about 500 °C to constant weight. Calculate the content in mg of acid-insoluble ash per g of air-dried material.