

## **Iodine-129**

### **Soil**

A sub-sample is leached in sodium hydroxide in a closed system that leads to a sodium hydroxide trap. Nitric acid solution is then added. The iodine is volatilised, while air is drawn through the system and the iodine is collected in the trap. Silver iodide is then precipitated and weighed to determine the yield. The precipitate is then suspended in scintillation cocktail and assayed by liquid scintillation spectrometry using the standard addition technique.

The solutions used to treat the sample are sodium hydroxide and nitric acid. Only some materials are soluble in these solutions therefore some analyses would have to be treated as a "leach" rather than a dissolution.