

Separation Science & Thermal Analysis Section (SS & TAS),ACD

Oxygen and Nitrogen Determinator

Instrument : LECO TC-300
Method : Inert Gas Fusion
Range (at 1gm) : O₂- 2 ppm - 0.2%,
N₂- 2 ppm - 0.5%
Readability : 0.001ppm
RSD : 3 %

Samples analysed : Cobalt, steel, zirconium alloys, borides of titanium, chromium and zirconium, molybdenum silicide etc.



Principle: The sample is heated to a high temperature in a graphite crucible with or without nickel flux depending upon the specimen under inert atmosphere. Oxygen is detected as carbon di-oxide by IR detector and nitrogen by thermal conductivity detector.