

Method Number: TM 044

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**Method Summary****Determination of Silica in waters by Palintest test kit****Scope and Range**

This method details the determination of soluble silica in water and leachate using the Palintest test kit.

Range: 0.5 - 4 mg/l

LOD = 0.5 mg/l SiO₂

References

none

Principle

The sample is kept in cold storage until retrieved. A homogenised sample is then prepared and filtered.

10 mls of sample solution is then tested by Palintest kit. Ammonium molybdate reacts with silica under acid conditions to produce molybdosilicic acid. In the presence of a reducing agent, this compound is reduced to form an intense blue complex, which is proportional to the concentration of silica present. The intensity of the blue colour is measured using the photometer at 640 nm by % transmittance.

Interferences

Phosphate - eliminated by using PR tablet

Colour - can be removed by addition of activated charcoal