

ChemScan[®]

PROCESS ANALYZERS

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ChemScan[®] Method Summary #135 Sulfate

Background

Sulfate (SO_4^{2-}) is fairly common in natural waters. Sulfate products such as ferric sulfate and ferrous sulfate are produced by reacting sulfuric acid with iron ore. These products have widespread use in water or wastewater treatment for phosphate precipitation, odor control, organics removal, coagulation, sludge conditioning, hydrogen sulfide control, metals precipitation and cyanide complexation.

ChemScan Analysis Methods

ChemScan uses a variation of Standard Method 4500-SO₄-E for analysis. This is a Turbidimetric method, where sulfate is precipitated with barium chloride at low pH to form barium sulfate. The resulting light absorbance at 420 nm is proportionate to sulfate concentration.