

ChemScan[®]

PROCESS ANALYZERS

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ChemScan[®] Method Summary #67 Turbidity in Water or Wastewater

Turbidity Monitoring

Turbidity is one of the most frequently monitored parameters for quality monitoring or process control in water or wastewater. Turbidity refers to the relative clarity of a sample and therefore is a parameter that can be measured in optical terms. The clarity of a sample can be reduced by dissolved materials that absorb light and by particulate matter which will scatter light.

Standard Techniques

Light absorbance can be measured at a specific visible wavelength (typically 450 nm) by transmitting light of known intensity through a fixed path length of sample and measuring the intensity drop through the sample. The light path may be arranged such that the point of entrance and the point of exit are oriented at either 180° or at 90°. The 180° orientation is used to measure Jackson Turbidity Units (JTU). The 90° orientation measures Nephelometric Turbidity Units (NTU).

ChemScan Analytical Methods

All ChemScan Process Analyzers use a designated wavelength, typically in the 400-450 nm range, to compensate for turbidity variations in a sample. This same capability can be used to measure JTU turbidity in the sample in addition to the measurement of various chemical parameters.