

**METHOD #: 110.3** Approved for NPDES (Issued 1974)  
**TITLE:** Color (Spectrophotometric)  
**ANALYTE:** Color  
**INSTRUMENTATION:** Spectrophotometer  
**STORET No.** 00080

## 1.0 Scope and Application

1.1 This method is applicable to drinking, surface, and saline waters, domestic and industrial wastes. It must be used for industrial wastes that cannot be determined by the Platinum-Cobalt method.

## 2.0 Summary of Method

2.1 Color characteristics are measured at pH 7.6 and at the original pH by obtaining the visible absorption spectrum of the sample on a spectrophotometer. The percent transmission at certain selected wavelengths is used to calculate the results.

2.2 The results are expressed in terms of dominant wavelength, hue, luminance, and purity.

## 3.0 Interferences

3.1 Since very slight amounts of turbidity interfere with the determination, samples must be filtered before analysis.

## 4.0 Sample Handling and Preservation

4.1 Since biological activity may change the color characteristics of a sample, the determination should be made as soon as possible. Refrigeration at 4°C is recommended.

## 5.0 Reference

5.1 The procedure to be used for this determination is found in: Standard Methods for the Examination of Water and Wastewater, 14th Edition, p 66, Method 204B (1975).