

HYDROGEN PEROXIDE LR

Photometer Method

**AUTOMATIC
WAVELENGTH
SELECTION**

**TEST FOR LOW LEVELS OF
HYDROGEN PEROXIDE IN WATER**

0 – 2.0 mg/l

Hydrogen peroxide is used in various water treatment processes. In such applications it is important to ensure that the hydrogen peroxide level is maintained within the correct range to ensure optimum operation of the water treatment process.

The Palintest Hydrogen Peroxide LR test provides a simple means of measuring Hydrogen Peroxide levels over the range 0 - 2.0 mg/l.

Method

Hydrogen peroxide reacts with potassium iodide under slightly acid conditions, and in the presence of a catalyst, to release iodine into solution. The iodine then reacts with diethyl-p-phenylene diamine (DPD) to produce a pink coloration. In the Palintest method the reagents are combined in the form of a single tablet and the test is simply carried out by adding a tablet to a sample of the water.

The intensity of the colour produced is proportional to the hydrogen peroxide concentration and is measured using a Palintest Photometer.

Reagents and Equipment

Palintest Hydrogen Peroxide LR Tablets
Palintest Automatic Wavelength Selection Photometer
Round Test Tubes, 10 ml glass (PT 595)

Test Procedure

- 1 Rinse test tube with sample leaving 2 to 3 drops of sample in the tube.
- 2 Add one Hydrogen Peroxide LR tablet, crush and then fill tube with sample to the 10 ml mark. Mix to dissolve tablet.
- 3 Stand for two minutes to allow full colour development.
- 4 Select Phot 16 on Photometer.
- 5 Take Photometer reading in usual manner (see Photometer instructions).
- 6 The result is displayed as mg/l H₂O₂.

Notes

- 1 The sample should be free of other oxidising agents such as chlorine, bromine, etc, as these react in a similar manner and will interfere with the test. It is unlikely that these oxidising agents will be used in conjunction with hydrogen peroxide and, under normal circumstances, will not usually coexist in solution.
 - 2 For measuring high levels of hydrogen peroxide used in industrial processes, use the Palintest Hydrogen Peroxide HR test (see PHOT.17.).
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