



Dissolved Metals in Water Sciencefaircenter.com Study Kit

Each water sample is tested for this Set of parameters:
Dissolved Metals (Combined Metals
 Cu^{+2} , Co^{+2} , Zn^{+2} , Cd^{+2} , Ni^{+2} , etc.)
and pH
(2 tests per Set)

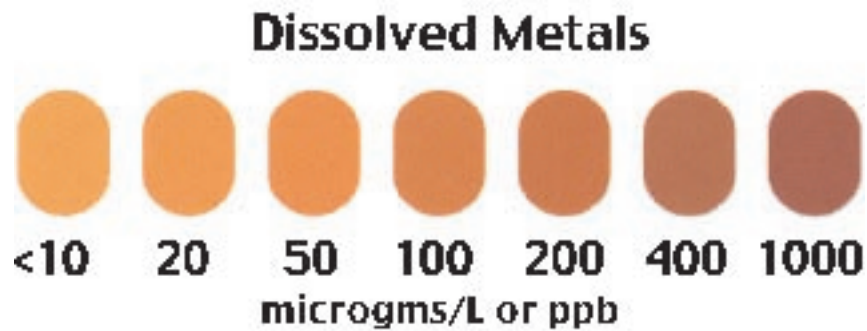
Log onto
www.sciencefaircenter.com/documentation.tpl
for additional information on this study kit.

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Dissolved Metals

Colorimetric test strips

Testing for Dissolved Metals, also referred to as Trace Metals, in tap water is very common and is very quick and easy with these semiquantitative test strips. Each test strip result indicates the combined presence of heavy metals (Cu+2, Co+2, Zn+2, Cd+2, Ni+2, Pb+2, etc...) in water.

The color chart for this test allows you to read Dissolved Metals in micrograms/L (ugms/L) or parts per billion (ppb). The color chart was calibrated using mixed metals solution.

In the presence of one specific metal, or a high concentration of a specific metal, colors such as purple, red, or brown may appear. In this situation, matching levels based on color intensity may be necessary to reach semiquantitative results.

This test reports mixed Dissolved Metals levels in water at:
<10, 20, 50, 100, 200, 400, 1000 microgms/L or ppb.
(Note: concentration units are micrograms per Liter or parts per billion: ppb.)

Results are obtained from this test in 2 1/2 minutes.

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pH Scales



pH CHECK

Colorimetric test strips

This pH test is very versatile in that it can be used for drinking water testing, food processing, environmental applications or in any other water matrix.

pH is short for "power of Hydrogen." The balance of positively charged and negatively charged hydrogen ions in water determines pH.

Water that has a low pH is acidic or aggressive and can corrode plumbing resulting in metal ions being present in drinking water and damaged fixtures and pipes. Water that has a high pH is basic and will leave scale in pipes and on fixtures.

This test features two test pads both measuring pH at in the same range using different color indicators. This makes color matching easier than with other colorimetric tests.

This test reports water pH at the following levels:
2, 3, 4, 5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 11, 12.

Results are obtained from this test in less than 1 minute.

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NOTE:

These pH test strips perform optimally in water with a Total Alkalinity above 80 mg/L or ppm. Water highly saturated with dissolved solids or highly buffered samples will give elevated results for pH.

NOTE:

National Secondary Drinking Water Regulations set forth by EPA recommend a pH level between 6.5-8.5

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