Instrument specific information

The test can be performed on the following devices. In addition, the required cuvette and the absorption range of the photometer are indicated.

<table>
<thead>
<tr>
<th>Instrument Type</th>
<th>Cuvette</th>
<th>λ</th>
<th>Measuring Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD 600, MD 610, MD 640, MultiDirect, PM 620, PM 630, XD 7000, XD 7500</td>
<td>ø 24 mm</td>
<td>560 nm</td>
<td>5.2 - 6.8</td>
</tr>
</tbody>
</table>

Material

Required material (partly optional):

<table>
<thead>
<tr>
<th>Reagents</th>
<th>Packaging Unit</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromocresol Purple Photometer</td>
<td>Tablet / 100</td>
<td>515700BT</td>
</tr>
<tr>
<td>Bromocresol Purple Photometer</td>
<td>Tablet / 250</td>
<td>515701BT</td>
</tr>
</tbody>
</table>

Application List

- Boiler Water
- Pool Water Control
- Pool Water Treatment
- Raw Water Treatment

Notes

1. For photometric determination of pH values only use BROMCRESOL PURPLE tablets in black printed foil pack and marked with PHOTOMETER.
2. The accuracy of the colorimetric determination of pH values depends on various boundary conditions (buffer capacity of the sample, salt contents etc.).
Implementation of the provision pH value LR with Tablet

Select the method on the device
For this method, no ZERO measurements are to be carried out with the following devices: XD 7000, XD 7500

10 ml

Fill 24 mm vial with 10 ml sample.

Close vial(s).

Place sample vial in the sample chamber. • Pay attention to the positioning.

Zero

Press the ZERO button.

Remove the vial from the sample chamber.

For devices that require no ZERO measurement, start here.

Add BROMCRESOLPURPLE PHOTOMETER tablet.

Crush tablet(s) by rotating slightly.

Close vial(s).
Dissolve tablet(s) by inverting.

Place sample vial in the sample chamber. • Pay attention to the positioning.

Press the TEST (XD: START) button.

The result in pH value appears on the display.
Chemical Method
Bromocresolpurple

Appendix

Calibration function for 3rd-party photometers
Conc. = a + b•Abs + c•Abs² + d•Abs³ + e•Abs⁴ + f•Abs⁵

<table>
<thead>
<tr>
<th>ø 24 mm</th>
<th>□ 10 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>4.59342 • 10⁰</td>
</tr>
<tr>
<td>b</td>
<td>2.8352 • 10⁰</td>
</tr>
<tr>
<td>c</td>
<td>-2.28986 • 10⁰</td>
</tr>
<tr>
<td>d</td>
<td>9.993 • 10⁻¹</td>
</tr>
<tr>
<td>e</td>
<td>-1.5366 • 10⁻¹</td>
</tr>
<tr>
<td>f</td>
<td></td>
</tr>
</tbody>
</table>

Interferences

Persistant Interferences
• pH values below 5.2 and above 6.8 can produce results inside the measuring range. A plausibility test (pH-meter) is recommended.

Removeable Interferences
Salt error Correction of test results (average values) for samples with salt contents of:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Salt content per sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromocresolpurple</td>
<td>1 molar -0.26 2 molars -0.33 3 molars -0.31</td>
</tr>
</tbody>
</table>

The values of Parson and Douglas (1926) are based on the use of Clark and Lubs buffers. 1 Mol NaCl = 58.4 g/l = 5.8 %

Bibliography