

# Buffering capacity - Alkalinity

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LAST CHANGED: 21 MAY 2021

Alkalinity is measured by titration to pH 5.6, pH 5.4 or 4.5 with HCl. The CO<sub>2</sub> formed is continuously removed by nitrogen gas flow-through. The endpoint is indicated with a pH electrode.

## Known issues with the parameter and/or important method changes

At present, the acidity of the water is given as negative alkalinity in our databases.

## Current method of measurement

### The Aquatic Sciences and Assessment Method

Valid since January 2008

Method: SS-EN ISO 9963-2:1994 (modified). Titration to pH 5.6.

Instruments: Metrohm 855 Robotic Titrosampler with combination electrode. Samples are weighed.

### The Soil and Environment Method

Valid since 2014

Method: SS-EN ISO 9963-2:1994. Titration to pH 5.4 and some samples also to 4.5.

Instruments: Metrohm 855 Robotic Titrosampler with combination electrode. Samples are weighed.

## Previous methods

Titration to pH 5.6.

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1998-01 – 2007-12

Method: SS-EN ISO 9963-2:1994 (modified). Mettler-Toledo instrument manual.

Instruments: Mettler DL 67 Titrator. Mettler ST 20A Sample changer. Mettler Scale PE 300. Hewlett-Packard Deskjet 520 printer.

1994-07 – 1997-12

Method: Swedish Standard SS 02 81 39 (modified). Mettler-Toledo instrument manual.

Instruments: Mettler DL 67 Titrator. Mettler ST 20A Sample changer.

1985-10 – 1994-06

Method: Swedish Standard SS 02 81 39 (modified). Mettler instrument manual.

Instruments: Mettler Compact Titrator DL 20. Mettler Rototitrator RT 40.

1965-01 – 1985-09

Method: Karlgren, L. 1961, Vattenkemiska Analysmetoder (Hydrochemical Analytical Methods, in Swedish). Modified for automatic titration.

Instruments: Radiometer Autoburette ABU1. Radiometer pH-meter PHM 28. Radiometer Titrator TTT 11. Radiometer electrode pair G 202C/K 401.

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## Contact

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Ingrid Nygren, Chemist  
Department of Aquatic Sciences and Assessment, Section for  
Geochemistry and Hydrology, laboratory

ingrid.nygren@slu.se, +4618673141  
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## Links

Read about [alkalinity on Wikipedia](#).

Read about [buffer capacity on Wikipedia](#).

PAGE EDITOR: VATTENMIJO-WEBB@SLU.SE

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