

# Silicon, Si

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LAST CHANGED: 25 MARCH 2022

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

Summary of problems with the silicon analysis at the Geochemical laboratory during 2005-2010 (in Swedish).

Method comparison from the change to optical ICP (in Swedish).

## Current method of measurement (inductively coupled plasma)

Valid since January 2018

Metod: Metod: ICP-MS, SS-EN ISO 17294-2:2016

Instrument: Agilent.

## Previous methods

### Previous methods (inductively coupled plasma)

2016 01 - 2017 12 (implemented Maj 2016 but valid for samples from January 2016)

Method: ICP-MS, SS-EN ISO 17294-2:2005

Instrument: Agilent.

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2014 01 - 2015 12

Method: ICP (inductively-coupled plasma), SS-EN ISO 11885:2009

Instrument: PerkinElmer OPTIMA 2100

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### Previous methods (molybdate-reactive silicon)

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The forms of silicon that occur in natural waters exhibit highly variable reactivity with different analytical reagents. Our earlier method measured so-called molybdate-reactive silicon, which represents the amount of dissolved silicon.

2007-01 - 2013-12

Method: Bran & Leubbe Method G-177-96 rev. 8 (Multitest MT 19)

Instrument: Autoanalyzer 3 (upgraded Autoanalyzer II).

NB: Samples conserved with  $H_2SO_4$ .

1995-01 - 2006-12

Method: Bran & Leubbe Industrial Method No. 811-86T.

Instrument: Technicon Traacs 800.

NB: Water samples conserved with  $HgCl_2$  until 1996, and with  $H_2SO_4$  since 1997.

1987-01 - 1994-12

Method: Standard Methods 12th Ed. 1965. Henriksen, A: Automatic Modification.

Instrument: Technicon Autoanalyzer II.

NB: Water samples conserved with  $HgCl_2$ .

1971-01 - 1986-12

Method: Standard Methods 12th Ed. 1965. Henriksen, A: Automatic Modification.

Instrument: Technicon Autoanalyzer I.

NB: Water samples conserved with  $HgCl_2$ .

1965-01 - 1970-12

Method: Karlgren, L. 1961, Vattenkemiska analysmetoder

(Hydrochemical Analytical Methods, in Swedish). Fotometrisk

Bestämning av molybdatreaktivt kisel (Photometric determination of molybdate-reactive silicon, in Swedish).

NB: Water samples conserved with  $HgCl_2$ .

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## Links

Read more about [silicon on Wikipedia](#).

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