Cobalt standard reagent for dissolved cobalt analyses

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Abstract

This protocol describes how to make a 5 nmol L^{-1} cobalt standard for measuring dissolved cobalt by cathodic stripping voltammetry.

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Materials

- MilliQ water by Contributed by users
- AA Cobalt Standard 1 mg/L by Contributed by users

Protocol

Dissolved cobalt analyses

Step 1.
Rinse a 100 mL volumetric flask (that has been cleaned with 10% hydrocholoric acid cabinet) with pH 2 Milli-Q 3 times and Milli-Q 3 times.

Dissolved cobalt analyses

Step 2.
Fill the flask part way with Milli-Q and add 29.5 µl of the cobalt AA standard (1 mg L^{-1}) to the Milli-Q. The final concentration will be 5 nmol L^{-1}.

Dissolved cobalt analyses

Step 3.
Carefully fill up to 100 mL Milli-Q using a squirt bottle and invert to mix. Save a small aliquot in a 5 mL clean bottle for a potential run later on the ICP-MS.