

visicolor® Powder Pillows

Kieselsäure HR

Reagenziensatz zur photometrischen Bestimmung des Kieselsäuregehaltes in Wasser- und Meerwasserproben.

Messbereich:

2–210 mg/L SiO₂

1–100 mg/L Si

Methode:

Photometrische Bestimmung des Kieselsäuregehaltes mittels Silicomolybdat-Methode analog zu APHA 4500-Si D.

Gefahrenhinweis:

Informationen zu Gefahren finden Sie auf dem Außenetikett und im Sicherheitsdatenblatt. Das Sicherheitsdatenblatt können Sie unter www.mn-net.com/SDS herunterladen.

Ausführung:

Benötigtes Zubehör: 2 Reaktionsgläser 16 mm AD (REF 91680) oder 2 Reaktionsgläser 24 mm (REF 936101), Sonderfilter 450 nm

- 1 Reaktionsglas mehrmals mit der Wasserprobe spülen (der pH-Wert der Probe muss zwischen pH 3 und 13 liegen)

Null (optional):

- 2 Eine Rundkuvette mit 5 mL Probe füllen
- 3 Rundkuvette von außen säubern
- 4 Rundkuvette in das Photometer einsetzen und NULL-Messung durchführen

Probe

- 5 Eine weitere Rundkuvette mit 5 mL Probe füllen
- 6 Den Inhalt eines Powder Pillows „Molybdat-Reagenz“ zugeben
- 7 Den Inhalt eines Powder Pillows „Säure-Reagenz“ zugeben
- 8 Rundkuvette verschließen und kräftig schütteln, bis der Feststoff gelöst ist
- 9 3 min warten
- 10 Den Inhalt eines Powder Pillows „Citronensäure-Reagenz“ zugeben
- 11 Rundkuvette verschließen und schütteln
- 12 Rundkuvette von außen säubern
- 13 2 min Reaktionszeit abwarten
- 14 Messen

Messung:

Bei MACHEREY-NAGEL Photometern siehe Handbuch.

Es ist darauf zu achten, dass evtl. zum Verdünnen verwendetes destilliertes Wasser kieselensäurefrei ist (REF 918912).

Nach Gebrauch Rundkuvette gründlich spülen und verschließen.

Diese Methode ist auch für die Analyse von Meerwasser geeignet.

Störungen:

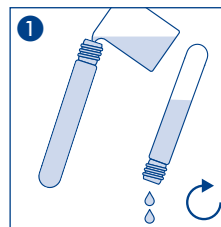
Es stören nicht: < 600 mg/L PO₄³⁻

Es stören: große Mengen Fe^{2+/3+}, Oxidationsmittel, Sulfide

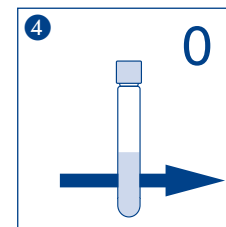
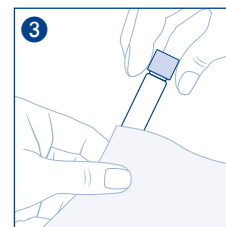
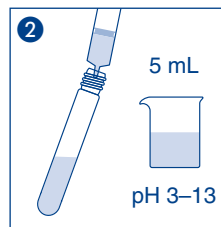
Laut APHA 4500-Si D existiert eine Modifikation der Kieselsäure, welche nicht mit Molybdat reagiert. Diese Molybdat-unreaktive Form kann durch Erhitzen oder Schmelzen mit Base in die reaktive Spezies überführt werden (z.B. Aufschluss mit Natriumhydrogencarbonat NaHCO₃).

Entsorgung:

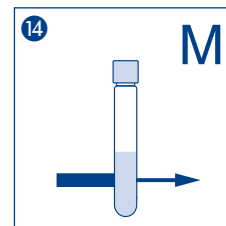
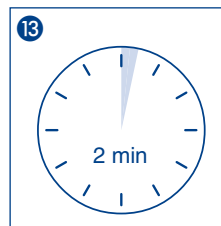
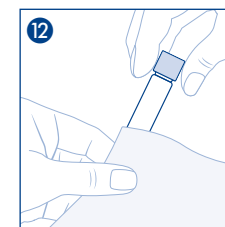
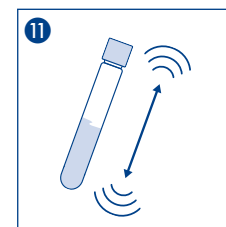
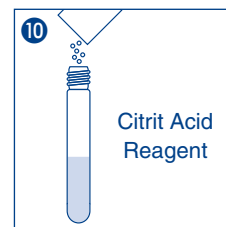
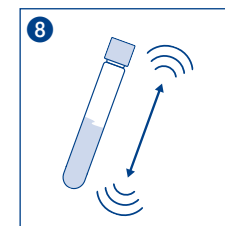
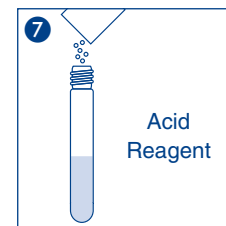
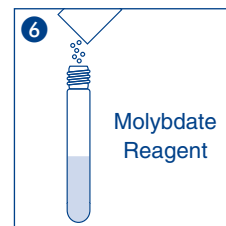
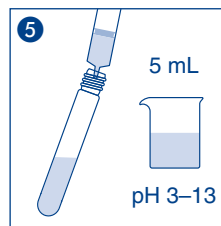
Informationen zur Entsorgung entnehmen Sie bitte dem Sicherheitsdatenblatt. Das Sicherheitsdatenblatt können Sie unter www.mn-net.com/SDS herunterladen.



Null (optional):



Probe:



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Tel.: 062 388 55 00 · sales-ch@mn-net.com

visicolor® Powder Pillows

Silica HR

Reagent set for the photometric determination of the silica content in water and sea water samples.

Measuring range:

2-210 mg/L SiO₂

1-100 mg/L Si

Method:

Photometric determination of the silica content using the silicomolybdate method analogous to APHA 4500-Si D.

Hazard warning:

Information regarding safety can be found on the box' label and in the safety data sheet. You can download the SDS from www.mn-net.com/SDS.

Procedure:

Requisite accessories: 2 test tubes 16 mm OD (REF 91680) or 2 test tubes 24 mm OD (REF 936101), special filter 450 nm

- 1 Rinse test tube several times with sample (*pH value of sample must be between pH 3 and 13*)

Blank (optional):

- 2 Fill one test tube with 5 mL of sample
- 3 Clean test tube
- 4 Place test tube in photometer as blank value and adjust for zero

Sample:

- 5 Fill another test tube with 5 mL of sample
- 6 Add content of 1 Powder Pillow "molybdate reagent"
- 7 Add content of 1 Powder Pillow "acid reagent"
- 8 Close test tube and vigorously shake until the solid material has dissolved
- 9 Wait for 3 min
- 10 Add content of 1 Powder Pillow "citric acid reagent"
- 11 Close test tube and shake well
- 12 Clean test tube
- 13 Wait for a 2 min reaction time
- 14 Measure

Measurement:

See manual for all MACHEREY-NAGEL photometers.

It should be ensured that any distilled water used for dilution is silica-free (REF 918912).

After use, rinse out test tubes thoroughly and seal them.

This method is also suitable for the analysis of sea water.

Interferences:

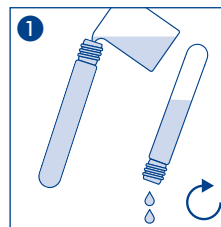
The following will not interfere: < 600 mg/L PO₄³⁻

The following will interfere: large amounts of Fe^{2+/3+}, oxidising agents, sulphides

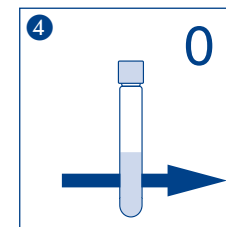
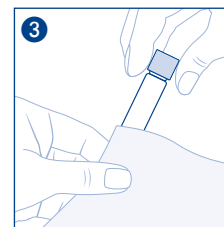
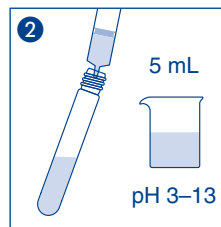
According to APHA 4500-Si D, there is a modification of the silica which does not react with molybdate. This molybdate-unreactive form can be converted into the reactive species through heating or fusing with a base (e.g. digestion with sodium bicarbonate NaHCO₃).

Disposal of samples:

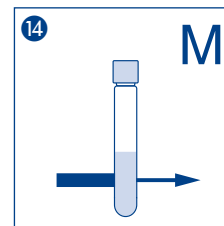
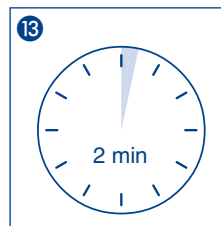
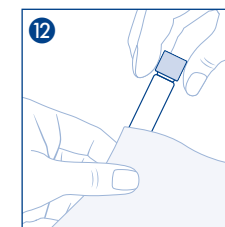
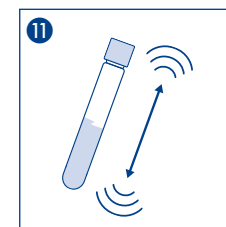
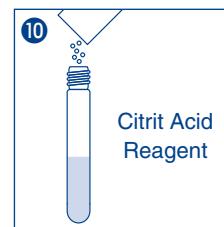
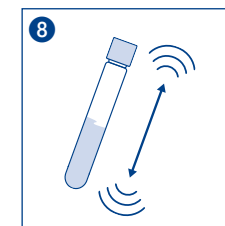
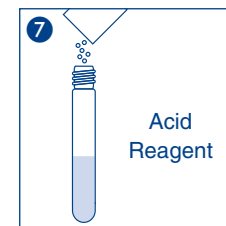
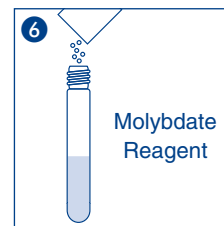
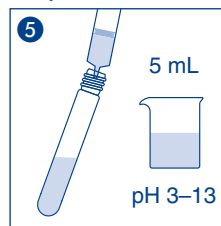
Information regarding disposal can be found in the safety data sheet. You can download the SDS from www.mn-net.com/SDS.



Blank (optional):



Sample:



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visicolor® Powder Pillows

Acide silicique HR

Jeu de réactifs pour détermination photométrique de la teneur d'échantillons d'eau et d'eau de mer en acide silicique

Domaine de mesure :

2–210 mg/L SiO₂

1–100 mg/L Si

Méthode :

Détermination photométrique de la teneur en acide silicique au moyen de la méthode au silicomolybdate analogue à la méthode APHA 4500-Si D.

Indication de danger :

Vous trouverez des informations sur les risques sur l'étiquette de l'emballage et dans la fiche de données de sécurité. Vous trouverez la fiche de données de sécurité sur le site www.mn-net.com/SDS pour la télécharger.

Exécution :

Accessoires nécessaires : 2 cuves de réaction de 16 mm de diamètre extérieur (REF 96180) ou 2 cuves de réaction de 24 mm de diamètre extérieur (REF 936101), filtre spécial 450 nm

- 1 Rincer plusieurs fois la cuve de réaction avec l'échantillon d'eau (*le pH de l'échantillon doit se situer entre 3 et 13*)

Blanc (en option) :

- 2 Remplir une cuve ronde avec un échantillon de 5 mL
- 3 Nettoyer l'extérieur de la cuve ronde
- 4 Placer la cuve ronde dans le photomètre et effectuer une mesure de la valeur à blanc

Echantillon :

- 5 Remplir une autre cuve ronde avec un échantillon de 5 mL
- 6 Ajouter le contenu d'un Powder Pillow « Réactif molybdate »
- 7 Ajouter le contenu d'un Powder Pillow « Réactif acide »
- 8 Fermer la cuve ronde et l'agiter vigoureusement jusqu'à dissolution de la matière solide
- 9 Attendre 3 minutes
- 10 Ajouter le contenu d'un Powder Pillow « Réactif acide citrique »
- 11 Fermer la cuve et l'agiter
- 12 Nettoyer l'extérieur de la cuve ronde
- 13 Temps de réaction : attendre 2 minutes
- 14 Mesurer

Mesure :

Se reporter au manuel du photomètre de MACHEREY-NAGEL.

Veiller à ce que l'eau distillée éventuellement utilisée pour la dilution ne contienne pas d'acide silicique (RÉF 918912).

Après utilisation, rincer à fond la cuve ronde et la fermer.

Cette méthode est également appropriée pour analyser l'eau de mer.

Interférences :

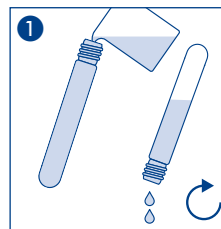
Une quantité < 600 mg/L de PO₄³⁻ ne perturbe pas la réaction.

De grandes quantités de Fe^{2+/3+}, d'oxydants, de sulfides perturbent la réaction.

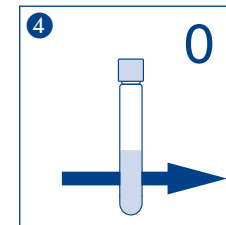
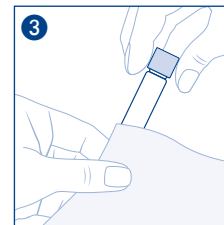
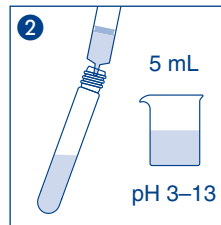
Selon APHA 4500-Si D, il existe une modification de l'acide silicique qui ne réagit pas avec le molybdate. Cette forme non réactive au molybdate peut être convertie par chauffage ou fusion avec une base en une forme réactive au molybdate (p. ex. digestion avec du bicarbonate de sodium NaHCO₃).

Élimination :

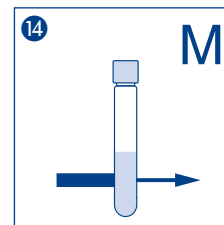
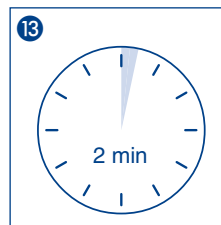
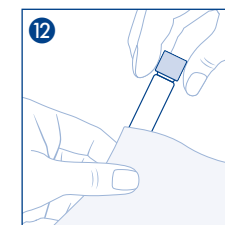
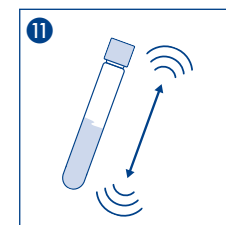
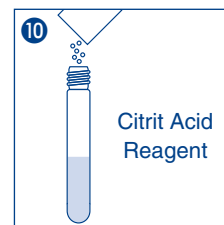
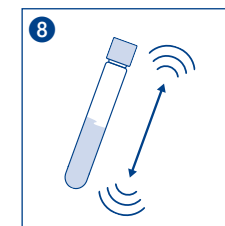
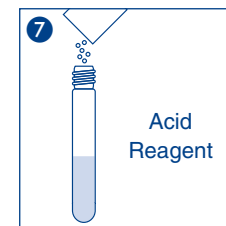
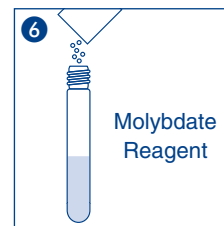
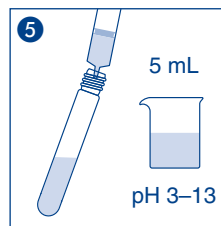
Vous trouverez des informations concernant l'élimination des produits dans la fiche de données de sécurité. Vous trouverez la fiche de données de sécurité sur le site www.mn-net.com/SDS pour la télécharger.



Blanc (en option) :



Echantillon :



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MACHEREY-NAGEL SAS (Société par Actions Simplifiée) au capital de 186600 €

Siret 379 859 531 00020 · RCS Strasbourg B379859531 · N° intracommunautaire FR04 379 859 531

Rev 2023-07 / 936225

visicolor® Powder Pillows

Ácido silícico HR

Kit de reactivos para la determinación fotométrica del contenido de ácido silícico en muestras de agua y agua de mar.

Rango de medida:

2–210 mg/L SiO₂

1–100 mg/L Si

Método:

Determinación fotométrica del contenido de ácido silícico mediante el método de silicomolibdeno análogo a APHA 4500-Si D.

Advertencia sobre peligro:

Encontrará la información sobre los riesgos en la etiqueta exterior y en la ficha de datos de seguridad. Puede descargar la ficha de datos de seguridad en www.mn-net.com/SDS.

Procedimiento:

Accesorios necesarios: 2 tubos de ensayo de 16 mm DE (REF 91680) o 2 tubos de ensayo de 24 mm DE (REF 936101), filtro especial 450 nm

- 1 Lave el tubo de ensayo varias veces con la muestra de agua (*el valor pH de la muestra debe hallarse entre 3 y 13*)

Blanco (opcional):

- 2 Ponga en una cubeta redonda 5 mL de muestra
- 3 Limpie la cubeta redonda por fuera
- 4 Inserte la cubeta redonda en el fotómetro y mida el CERO

Muestra:

- 5 Ponga en una otra cubeta redonda 5 mL de muestra
- 6 Añada el contenido de un Powder Pillow «Reactivo de molibdato»
- 7 Añada el contenido de un Powder Pillow «Reactivo de ácido»
- 8 Cierre la cubeta redonda y agítela vigorosamente hasta que se haya disuelto la materia sólida
- 9 Espere 3 min
- 10 Añada el contenido de un Powder Pillow «Reactivo de ácido cítrico»
- 11 Cierre la cubeta redonda y agítela
- 12 Limpie la cubeta redonda por fuera
- 13 Espere un tiempo de reacción de 2 min
- 14 Realice la medición

Medición:

Consulte el manual del fotómetro MACHEREY-NAGEL.

Se debe tener en cuenta que el agua destilada que se utilice para la dilución no contenga ácido silícico (REF 918912).

Tras el uso, limpie a fondo y cierre la cubeta redonda.

Este método también resulta adecuado para el análisis del agua de mar.

Interferencias:

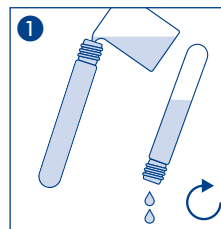
No interfieren: < 600 mg/L PO₄³⁻

Sí interfieren: grandes cantidades de Fe^{2+/3+}, oxidantes y sulfuros

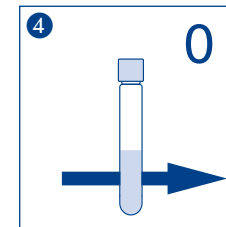
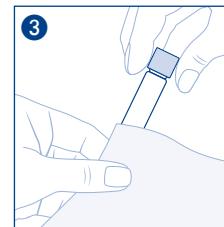
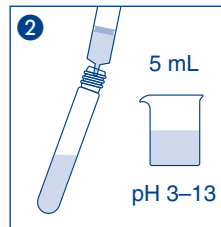
Según APHA 4500-Si D, existe una modificación del ácido silícico que no reacciona con el molibdato. Esta forma no reactiva con molibdato se puede transformar en la especie reactiva por calentamiento o fusión con una base (p. ej. disgregación con hidrogenocarbonato de sodio NaHCO₃).

Eliminación:

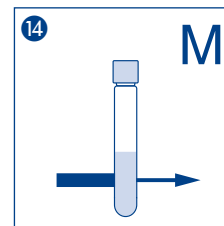
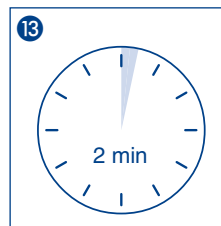
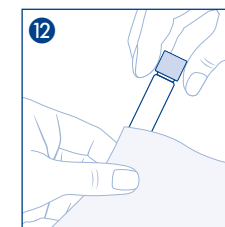
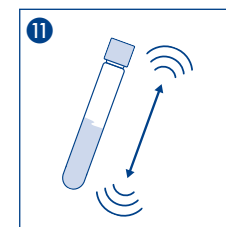
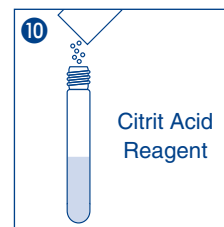
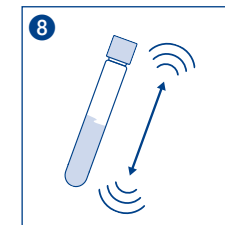
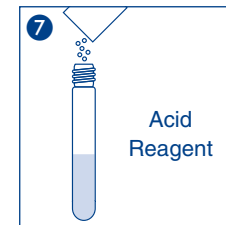
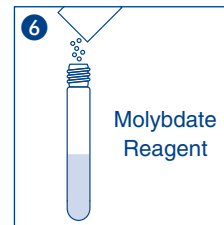
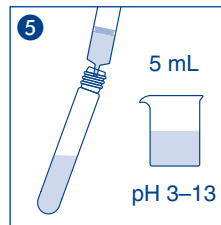
Consulte la información sobre la eliminación en la ficha de datos de seguridad. Puede descargar la ficha de datos de seguridad en www.mn-net.com/SDS.



Blanco (opcional):



Muestra:



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visicolor® Powder Pillows

Kiezelzuur HR

Reagentiaset voor de fotometrische bepaling van het kiezelzuurgehalte in water- en zee-watermetings.

Meetgebied:

2–210 mg/L SiO₂

1–100 mg/L Si

Methode:

Fotometrische bepaling van het kiezelzuurgehalte middels silico-molybdaat-methode analoog aan APHA 4500-Si D.

Voorzorgsmaatregel:

Informatie over de gevaren vindt u op het verpakkingsetiket en het veiligheidsinformatieblad. U kunt het veiligheidsinformatieblad downloaden van www.mn-net.com/SDS.

Procedure:

Benodigde hulpmiddelen: 2 reageerbuisen 16 mm BD (REF 91680) of 2 reageerbuisen 24 mm BD (REF 936101), specialfilter 450 nm

- 1 Reageerbuis meerdere malen met het watermonster spoelen (de pH-waarde van het meting moet tussen pH 3 en 13 liggen)

Nul (optioneel):

- 2 Een reageerbuis met 5 mL meting vullen
- 3 Buitenkant van de reageerbuis schoonmaken
- 4 Reageerbuis in de fotometer plaatsen en NULL-meting uitvoeren

Meting

- 5 De tweede reageerbuis met 5 mL meting vullen
- 6 De inhoud van een Powder Pillow “molybdaatreagens” toevoegen
- 7 De inhoud van een Powder Pillow “zuurreagens” toevoegen
- 8 Reageerbuis sluiten en krachtig schudden tot de vaste stof is opgelost
- 9 3 min wachten
- 10 De inhoud van een Powder Pillow “citroenzuurreagens” toevoegen
- 11 Reageerbuis sluiten en schudden
- 12 Buitenkant van de reageerbuis schoonmaken
- 13 Reactietijd van 2 min afwachten
- 14 Meten

Meting:

Bij MACHEREY-NAGEL fotometers zie handboek.

Er moet op worden gelet dat evt. voor verdunning gebruikt gedestilleerd water geen kiezelzuur bevat (REF 918912).

Na gebruik reageerbuis grondig spoelen en afsluiten.

Deze methode is ook geschikt voor de analyse van zeewater.

Storingen:

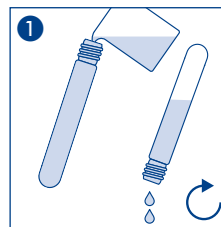
Niet interfererend: < 600 mg/L PO₄³⁻

Interfererend: grote hoeveelheden Fe^{2+/3+}, oxidatiemiddelen, sulfiden

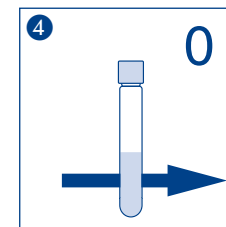
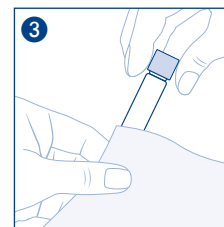
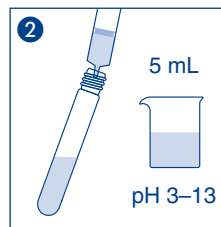
Volgens APHA 4500-Si D bestaat er een modificatie van het kiezelzuur die niet met molybdaat reageert. Deze molybdaat-onreactieve vorm kan door verhitting of smelten met base in de reactieve soort worden overgebracht (bijv. ontleding met natriumwaterstofcarbonaat NaHCO₃).

Afvalverwerking:

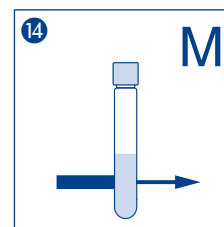
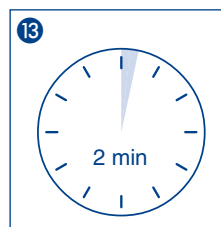
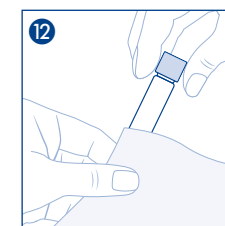
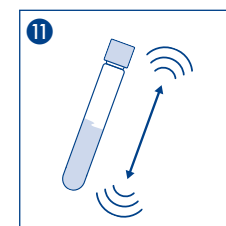
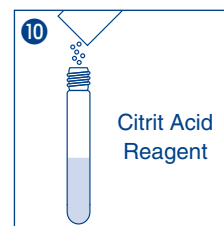
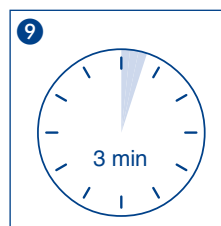
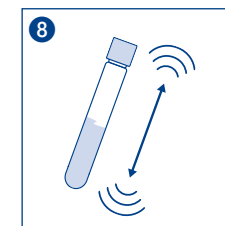
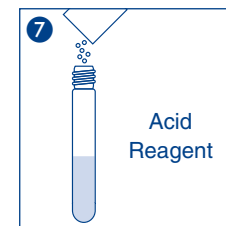
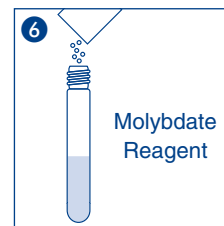
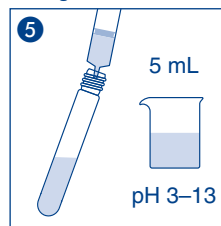
Raadpleeg het veiligheidsinformatieblad voor informatie over de afvoer. U kunt het veiligheidsinformatieblad downloaden van www.mn-net.com/SDS.



Nul (optioneel):



Meting:



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visicolor® Powder Pillows

Acido silicico HR

Kit di reagenti per la determinazione fotometrica dell'acido silicico in campioni di acque e acque marine.

Intervallo di valori:

2–210 mg/L SiO₂

1–100 mg/L Si

Metodo:

Determinazione fotometrica dell'acido silicico con il metodo del silicomolibdato analogamente a APHA 4500-Si D.

Avvisi di pericolo:

Per informazioni sui pericoli, leggere l'etichetta esterna e consultare la scheda di sicurezza. La scheda di sicurezza può essere scaricata dal sito www.mn-net.com/SDS.

Procedimento:

Materiali necessari: 2 cuvette di reazione da 16 mm DE (diametro esterno) (REF 91680) o 2 cuvette di reazione da 24 mm DE (diametro esterno) (REF 936101), filtro speciale 450 nm

- 1 Risciacquare più volte la cuvetta di reazione con il campione di acqua (*il valore del pH del campione deve essere compreso fra 3 e 13*)

Bianco (opzionale):

- 2 Riempire una cuvetta tonda con 5 mL di campione
- 3 Pulire l'esterno della cuvetta tonda
- 4 Inserire la cuvetta tonda nel fotometro ed effettuare la misurazione al fine di impostare il BIANCO

Campione:

- 5 Riempire un'ulteriore cuvetta tonda con 5 mL di campione
- 6 Aggiungere il contenuto di un Powder Pillows "reagente molibdato"
- 7 Aggiungere il contenuto di un Powder Pillows "reagente acido"
- 8 Sigillare la cuvetta tonda e agitare vigorosamente fino a dissolvimento del materiale solido
- 9 Attendere 3 min
- 10 Aggiungere il contenuto di un Powder Pillows "reagente acido citrico"
- 11 Sigillare la cuvetta tonda e agitare
- 12 Pulire l'esterno della cuvetta tonda
- 13 Attendere il tempo di reazione di 2 min
- 14 Misurare

Misura:

Fare riferimento al manuale relativo ai fotometri MACHEREY-NAGEL.

Fare attenzione che l'acqua distillata utilizzata eventualmente per la diluizione sia priva di acido silicico (REF 918912).

Dopo l'utilizzo, risciacquare accuratamente e sigillare le cuvette tonde.

Questo metodo è adatto anche per l'analisi di acque marine.

Interferenze:

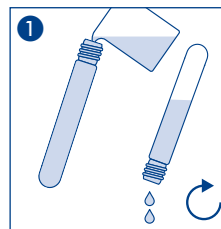
Non creano interferenze: < 600 mg/L PO₄³⁻

Creano interferenze: grandi quantità di Fe^{2+/3+}, ossidante, solfuri

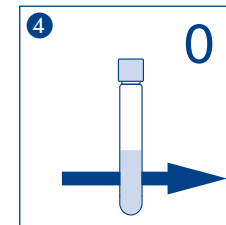
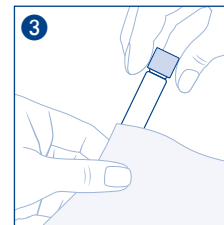
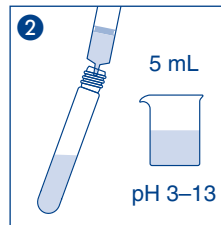
Secondo APHA 4500-Si D esiste una modifica dell'acido silicico che non reagisce con il molibdato. Questa forma non reattiva al molibdato può essere ricondotta alla specie reattiva mediante riscaldamento o fusione con base (ad es. fusione con bicarbonato di sodio NaHCO₃).

Smaltimento dei campioni:

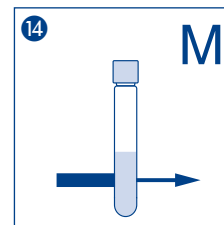
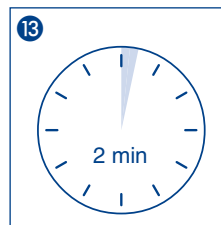
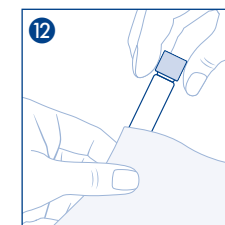
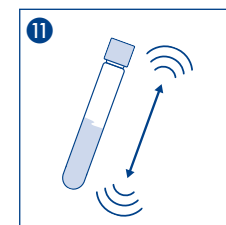
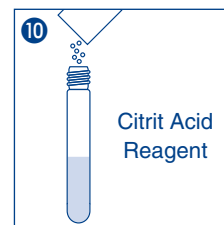
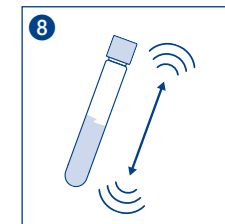
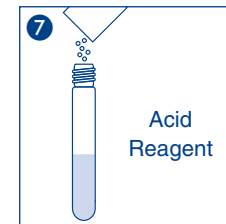
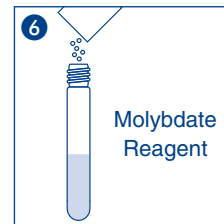
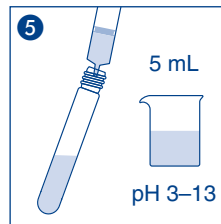
Per informazioni sullo smaltimento, consultare la scheda di sicurezza. La scheda di sicurezza può essere scaricata dal sito www.mn-net.com/SDS.



Bianco (opzionale):



Campione:



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visicolor® Powder Pillows

Silica HR

Conjunto de reagentes para determinação fotométrica do teor de sílica em água.

Faixa de medição:

2–210 mg/L SiO₂

1–100 mg/L Si

Método:

Determinação fotométrica do teor de sílica usando o método silicomolibdato análogo ao APHA 4500-Si D.

Alerta de perigo:

Informações relativas à segurança podem ser encontradas na etiqueta da embalagem e na FISPQ. Você pode baixar a FISPQ em www.mn-net.com/SDS.

Procedimento:

Acessórios necessários: 2 tubos 16 mm DE (REF 91680) ou 2 tubos 24 mm DE (REF 936101), filtro especial de 450 nm

- 1 Enxágue o tubo várias vezes com a amostra (o valor do pH da amostra deve estar entre 3 e 13)

Branco (opcional):

- 2 Transfira para o tubo 5 mL de amostra
- 3 Limpe o tubo
- 4 Coloque o tubo no fotômetro e ajuste para zero

Amostra:

- 5 Transfira para o tubo 5 mL de amostra
- 6 Adicione o conteúdo de 1 Powder Pillow "reagente molibdato"
- 7 Adicione o conteúdo de 1 Powder Pillow "reagente ácido"
- 8 Close test tube and vigorously shake until the solid material has dissolved
- 9 Aguarde 3 min
- 10 Adicione o conteúdo de 1 Powder Pillow "reagente ácido cítrico"
- 11 Feche o tubo e agite bem
- 12 Limpe o tubo
- 13 Aguarde o tempo de reação de 2 min
- 14 Meça

Medição:

Consulte o manual de todos os fotômetros MACHEREY-NAGEL.

Deve-se garantir que a água utilizada para diluição seja isenta de sílica (REF 918912).

Após o uso, enxágue bem os tubos e feche-os.

Este método é adequado para análise de água do mar.

Interferências:

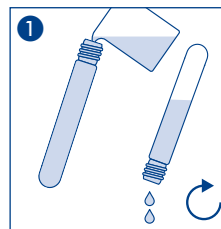
Os seguintes não vão interferir: < 600 mg/L PO₄³⁻

Os seguintes vão interferir: grandes quantidades de Fe^{2+/3+}, agentes oxidantes, sulfetos

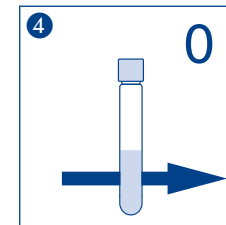
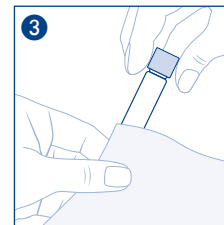
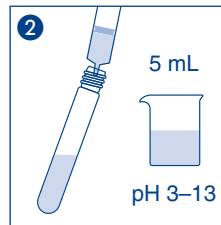
De acordo com a APHA 4500-Si D, ocorre uma modificação da sílica que não reage com o molibdato. Esta forma de molibdato não reativa pode ser convertida na espécie reativa através de aquecimento ou fusão com uma base (ex. digestão com bicarbonato de sódio NaHCO₃).

Descarte de amostra:

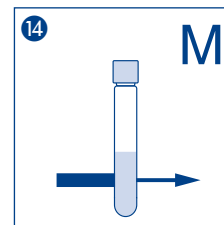
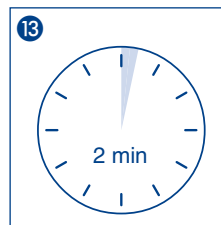
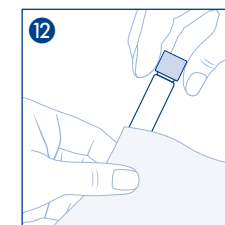
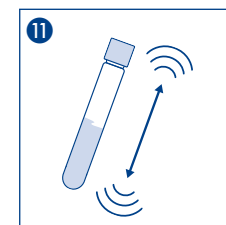
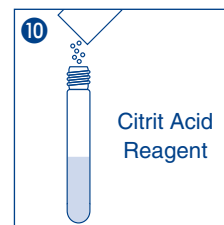
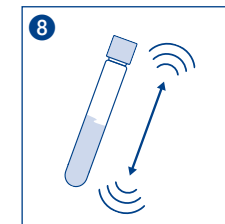
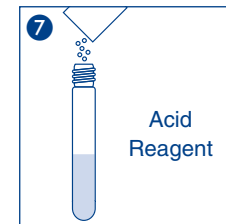
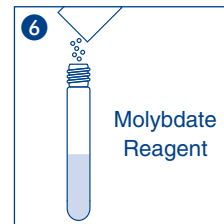
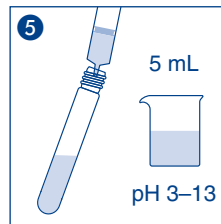
Informações sobre o descarte podem ser encontradas na FISPQ. Você pode baixar a FISPQ em www.mn-net.com/SDS.



Branco (opcional):



Amostra:



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