

Properties

Title:

Determination of disinfection by-products in drinking water.

-Technology profile

-OFFER from Romania, reference: TORO20180525001, valid from 06-06-2018 until 09-06-2019

Created:

9 juni 2018

Updated:

9 juni 2018

General information

Reference:

TORO20180525001

Profile type

Technology offer

Country of origin:

Romania

Deleted

Nee

Status:

Update

Start date:

6 juni 2018

End date:

9 juni 2019

Technologic information profile

Title:

Determination of disinfection by-products in drinking water.

Description:

A Romanian national research institute is specialized in the application of analytical chemistry in three main directions: Environment and Health, Instrumental Analytical Chemistry, Bioenergy and Biofuels. The institute has a remarkable endowment that allows approaching projects from research to stage prototype realization and technology transfer.

Disinfection by-products (DBPs) result from chemical reactions between organic and inorganic matter in water with

chemical treatment agents during the water disinfection process. Epidemiological studies have looked and demonstrated the associations between exposure to DBPs in drinking water with bladder cancer, adverse birth outcome and early-term miscarriages. A careful analysis of these chemical substances is mandatory, in order to respect food safety legislation. In this context, the Romanian institute has developed a method for the determination of disinfection by-products in drinking water.

As compared to other existing conventional methods, the Romanian research institute has developed an environmentally friendly method for determination of more than 20 disinfection by-products (trihalomethanes, iodomethane, haloacetic acids, haloketones, halonitromethanes, haloacetic acids, etc.) from drinking water samples (water treatment plants, drinking water supply systems, etc.). The determined disinfection by-products belong to chemical groups with different physicochemical and potential toxicological properties. The compounds are extracted using headspace-solid-phase microextraction (HS-SPME) procedure, followed by the analysis with gas chromatography with mass spectrometry (GC-MS).

The Romanian research institute is looking for partners abroad such as environmental analysis laboratories or bottled water producers (SMEs/large companies). The considered partnership refer to commercial agreements with technical assistance (engineering and technical assistance) in the method transfer and implementation on the partner's equipment, as well as, staff training.

Technologie keywords

- _ Astronomy
- _ Mathematics, Statistics

Activity codes

- _ Other research and experimental development on natural sciences and engineering

Languages

- _ Romanian
- _ English

Exploitations

- _ COSME

Sector groups

- _ Environment

More information

Plus Value:

The developed method is environmentally friendly, precise and sensitive, allowing to quantify disinfection by-products at very low concentrations (ng/l).

The innovative aspect of the method consists in the possibility of simultaneous determination of more than 20 disinfection by-products in drinking water.

IPR Status:

Patent(s) applied for but not yet granted

EOI Status:

Yes

Experience:

Organisation

Type of organisation:

Since:

1992

Type and Size:

R&D Institution

Transnational

Ja

Turnover:

1M

Collaboration

Technical Specification or Expertise Sought:

pppType of partner sought:

- Environmental analysis laboratories, accredited in water testing and analysis, interested to use the method for the determination of disinfection by-products in drinking water.
- SMEs or large companies, active in the production of bottled water, that have to comply with the legislation in force regarding the admissible water pollution levels.

Under the commercial agreement with technical assistance, the sought partners should implement the method for drinking water quality monitoring, using appropriate types of equipment and qualified personnel. The Romanian Institute will support the partner with technical consultancy regarding the use of appropriate equipment and/or its purchase as well as with the know-how transfer of the method and staff training.

ppSME 11-50,SME 10,500 MNE,251-500,SME 51-250,500p

Partnerships

_ Commercial agreement with technical assistance

Uitgevoerd door:



In opdracht van:



Ministerie van Economische Zaken



Ministerie van Buitenlandse Zaken

