Release of the latest information of Puric ω

ω net "OMEGA net" Vol.5

LC/MS analysis examples using the Puric ω ultrapure water

(Examination of the agrochemicals of the target set items for water quality control under the Waterworks Law)

ORGANO

Analysis examples using LC/MS

The analysis was conducted at the Shimadzu corporation laboratory. Using the Puric ω ultrapure water as mobile phase, the analysis of agrochemicals of the target set items for water quality control under the Waterworks Law was performed by LC/MS/MS.

Analysis conditions

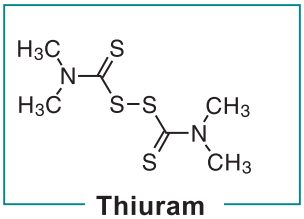
Device • Nexera X2 + LCMS-8050 (made by Shimadzu Corporation)

LCMS conditions • Agrochemicals of the target set items for water quality control under the Waterworks Law Conditions for the simultaneous analysis of the agrochemicals which are the subjects of the separately attached method 18, 19, and 20

Column • CERI L-column2 ODS (75 mm × 2.1 mm I.D., 2 um)

Mobile phase • Formic acid-acetic acid solution/ methanol

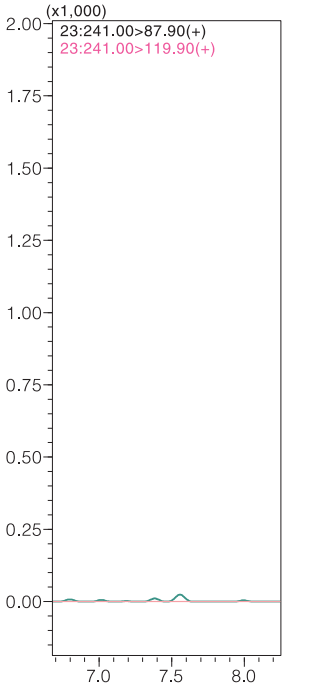
Flow rate • 0.2 mL/min



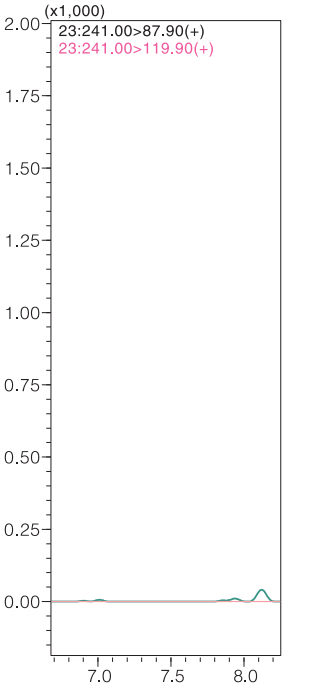
Thiuram

Water as LC/MS mobile phase

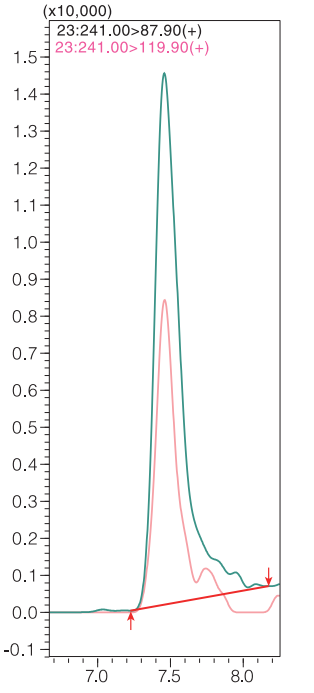
① Puric ω ultrapure water — No-injection



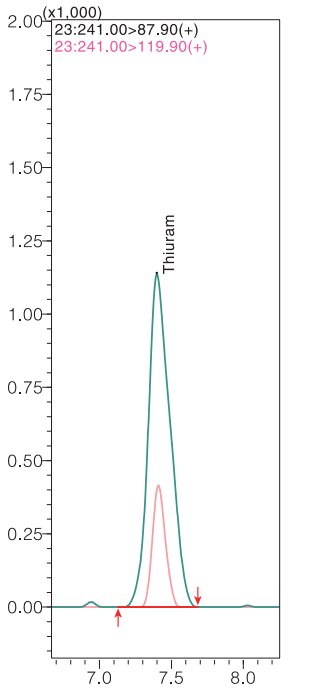
② Ultrapure water in a package for LC/MS — No-injection



③ Ultrapure water of the other company — No-injection



④ Ultrapure water in a package for LC/MS — 1 pg Thiuram standard



About the analysis results

A comparative analysis of ultrapure water as mobile phase for LC/MS was conducted.
In the analysis without injecting agrochemicals, the impurity peak was not detected in the ultra pure water in a package for LC/MS and in the Puric ω ultra purewater during the elution time of thiuram (the control target: 0.02mg/ L); however, it was detected in the ultra pure water of the other company. (It is assumed that the impurity peak has different components from thiuram because its ion ratio differs from the thiuram standard.)

*Thiuram is a dithiocarbamate compound used as a pesticide which is widely used as agrochemical.

LAB SALON by ORGANO CORPORATION

◀ For more information, visit our website!
https://puric.organo.co.jp/en/

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