ω net "OMEGA net" Vol.11

Release of the latest information of Puric ω

Case example of the measurement using Puric ω ultrapure water

(Analysis example of the double-focusing high resolution ICP-MS)

ORGANO

Case example of measuring trace metal by ICP-MS

Thermo Fisher Scientific (Yokohama laboratory, Japan) cooperated for the analysis for trace metal in Puric ω ultrapure water by using ICP-MS.

Analysis conditions

Analysis device : ELEMENT2 (Thermo Fisher Scientific)

Analysis method : Ultrapure water is sampled from Puric ω and measured by ICP-MS

*Calibration curve is created with 1% nitric acid added in Puric ω ultrapure water and, DL and BEC are calculated.

■ Analysis Data of major elements by ELEMENTS2

Element	Mass No.	BEC(ppt)	DL(ppt)
Li	7	<0.05	<0.05
B	11	6	1
Na	23	<0.1	<0.1
Mg	24	0.2	<0.1
Al	27	0.8	<0.5
P	31	4	1
K	39	<0.5	<0.5
Ca	44	<0.5	<0.5
Ti	48	<0.05	<0.05
V	51	<0.05	<0.05
Cr	52	0.2	<0.1
Mn	55	<0.1	<0.1
Fe	56	<0.5	<0.5
Ni	58	<0.5	<0.5
Co	59	<0.01	<0.01
Cu	63	<0.1	<0.1

Element	Mass No.	BEC(ppt)	DL(ppt)
Zn	64	<0.5	<0.5
Ga	69	<0.05	<0.05
As	75	<0.5	<0.5
Rb	85	<0.05	<0.05
Sr	88	<0.05	<0.05
Zr	90	<0.01	<0.01
Mo	98	<0.1	<0.1
Ag	107	<0.1	<0.1
Cd	114	<0.05	<0.05
Sn	118	<0.1	<0.1
Sb	121	<0.05	<0.05
Cs	133	<0.05	<0.05
Ba	138	<0.05	<0.05
W	184	<0.05	<0.05
Pb	208	<0.05	<0.05
U	238	<0.005	<0.005

About the analysis results

By double-focusing high resolution ICP-MS for trace analysis, Puric ω water is proved to be of high purity. By high resolution of double-focusing high resolution ICP-MS, low BEC was overall achieved such as P showing single-digit ppt, which is the element hard to be reduced. It is confirmed that Puric ω ultrapure water is suitable to blank water for double-focusing high resolution ICP-MS targeting at trace analysis.

*BEC contains the backgrounds from air during dispensing, reagents and equipment, etc.

LAB SALON by ORGANO CORPORATION

◀ For more information, visit our website!

https://puric.organo.co.jp/en/

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LEA.NO.S-3-0(11a)