

REPORT № 18736.15

on Impurities Determination

Certificate supplement 3238-15

Cesium (metal) Lot #24

Sampling was made by ANSERTEKO Ltd.

The impurities evaluation was made by Spark Source Mass Spectrometry. The JMS-01-BM2 double focusing mass spectrometer manufactured by JEOL (Japan) was applied. The high resolution mass spectra were photographed on Ilford-Q plates. The relative standard deviation is 0.15-0.30.

The results are presented as Parts Per Million mass (1 ppm = 0.0001 %).

Element	ppm	Element	ppm	Element	ppm
H	ND	Zn	< 0.01	Pr	< 0.03
Li	< 0.001	Ga	< 0.01	Nd	< 0.03
Be	< 0.001	Ge	< 0.01	Sm	< 0.03
B	< 0.001	As	< 0.01	Eu	< 0.03
C	ND	Se	< 0.01	Gd	< 0.03
N	ND	Br	< 0.01	Tb	< 0.03
O	ND	Rb	0.5	Dy	< 0.03
F	0.3	Sr	< 0.01	Ho	< 0.03
Na	0.4	Y	< 0.01	Er	< 0.03
Mg	< 0.01	Zr	< 0.01	Tm	< 0.03
Al	0.1	Nb*	ND	Yb	< 0.03
Si	0.1	Mo	< 0.01	Lu	< 0.03
P	< 0.01	Ru	< 0.01	Hf	< 0.05
S	< 0.01	Rh	< 0.01	Ta*	ND
Cl	0.1	Pd	< 0.01	W	< 0.05
K	0.6	Ag	< 0.01	Re	< 0.05
Ca	0.1	Cd	< 0.01	Os	< 0.05
Sc	< 0.01	In	< 0.01	Ir	< 0.05
Ti	< 0.01	Sn	< 0.01	Pt	< 0.05
V	< 0.01	Sb	< 0.01	Au	< 0.05
Cr	0.09	Te	< 0.01	Hg	< 0.05
Mn	< 0.01	I	< 0.01	Tl	< 0.08
Fe	0.2	Cs	MATRIX	Pb	< 0.08
Co	< 0.01	Ba	< 0.03	Bi	< 0.08
Ni	< 0.01	La	< 0.03	Th	< 0.08
Cu	< 0.01	Ce	< 0.03	U	< 0.08

* - Nb and Ta are materials of Ion Source.

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