

Certificate of analysis

Product Number: 43006

Product: Silicon lump 99.9999 %

Batch: 61001037

Items	Results
Electrical properties	
Conductivity type	n-type, Phosphorous-doped
Specific resistivity	0.005 – 0.1 $\Omega \times \text{cm}$
Chemical composition	
Carbon (FTIR)	$< 5 \times 10^{15} \text{ atom/cm}^{-3}$
Interstitial oxygen (FTIR)	$< 1.10 \times 10^{16} \text{ atom/cm}^{-3}$
Metallic residual impurities (INNA)	
Na	$< 2 \times 10^{13*}$
K	$< 5 \times 10^{11}$
Rb	$< 1 \times 10^{10*}$
Cs	$< 1 \times 10^9*$
Ca	$< 4 \times 10^{12*}$
Sr	$< 2 \times 10^{12*}$
Ba	$< 5 \times 10^{10*}$
Sc	$< 5 \times 10^8$
Ti	$< 1 \times 10^{13*}$
Cr	$< 1 \times 10^{11}$
Fe	$< 1 \times 10^{12}$
Co	$< 1 \times 10^{11}$
Ni	$< 1 \times 10^{11*}$
Cu	$< 1 \times 10^{12}$
Zn	$< 5 \times 10^{10*}$
* Limit of detection	

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