

Certificate of Analysis

Standard Reference Material 980

Isotopic Standard for Magnesium

Absolute Abundance Ratio, Mg-25/Mg-24	-----	0.12663 ± 0.00013
Absolute Abundance Ratio, Mg-26/Mg-24	-----	0.13932 ± 0.00026
Magnesium-24, Atom Percent	-----	78.992 ± 0.025
Magnesium-25, Atom Percent	-----	10.003 ± 0.009
Magnesium-26, Atom Percent	-----	11.005 ± 0.019

The preparation furnished is a commercial sample of high-purity magnesium metal. Measurements are by triple filament (rhenium) mass spectrometry, using mixtures of known composition prepared from high-purity separated isotopes of magnesium as comparison standards. Overall limits of error are based on 95 percent confidence limits for the mean of the ratio measurements, and on allowances for the known sources of possible systematic errors. Details of the preparation and measurements are published by E. J. Catanzaro, T. J. Murphy, E. L. Garner and W. R. Shields, J. Research NBS 70A, No. 6, 453-458 (1966).

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