



Certificate of Analysis

Standard Reference Material 979

Isotopic Standard for Chromium

Absolute Abundance Ratio, Cr-50/Cr-52	0.05186 ± 0.00010
Absolute Abundance Ratio, Cr-53/Cr-5211339 ± .00015
Absolute Abundance Ratio, Cr-54/Cr-5202822 ± .00006
Chromium-50, atom percent	4.345 ± 0.009
Chromium-52, atom percent	83.789 ± .012
Chromium-53, atom percent	9.501 ± .011
Chromium-54, atom percent	2.365 ± .005

The preparation furnished is a commercial sample of hydrated chromium nitrate $[\text{Cr}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}]$. Measurements are by single filament (platinum) mass spectrometry, using mixtures of known composition prepared from high-purity separated isotopes 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 preparations and measurements are published by W. R. Shields, T. J. Murphy, E. J. Catanzaro, and E. L. Garner, J. Research NBS 70A (Phys. and Chem.) No. 2, 193-197 (1966).

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