



Showcasing research from Professor Keqing Zong's laboratory, State Key Laboratory of Geological Processes and Mineral Resources, School of Earth Sciences, China University of Geosciences (Wuhan), Hubei, China.

Accurate determination of trace silver in geological reference materials by inductively coupled plasma-tandem mass spectrometry (ICP-MS/MS)

Accurate determination of trace Ag abundances in geological samples is hindered by significant spectral interferences. Taking advantage of the double mass-filter capability of inductively coupled plasma tandem mass spectrometry (ICP-MS/MS), it was experimentally found that the major spectral interferences ($^{91}\text{Zr}^{16}\text{O}^+$ and $^{93}\text{Nb}^{16}\text{O}^+$) of Ag can be effectively removed through the reaction with NH_3 , and that Ag can be determined in two interference-free ways, i.e., "on-mass" mode (Ag^+) and "mass-shift" mode ($\text{Ag}(\text{NH}_3)_2^+$). The Ag content of 19 geological reference materials was accurately determined by the proposed method.

As featured in:



See Keqing Zong *et al.*,
J. Anal. At. Spectrom., 2023, **38**, 1984.