

A SIMPLE, RAPID AND DIRECT DETERMINATION OF SILVER IN GEOLOGICAL SAMPLES BY GRAPHITE FURNACE ATOMIC ABSORPTION SPECTROPHOTOMETER

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Abstract

Determination of silver using AAS or ICP- AES is usually carried out after a pre-concentration separation technique due to its low abundance in geological samples. In this context, direct determination of silver in geological sample is carried out by GF-AAS because it is an excellent determination technique for silver due to its very high detection power (DL 5 pg). Therefore, an attempt is made to systematically assess the suitability of the technique for direct determination of silver in certain types of geological materials like granite, quartzite and dolomite. In the presence of ammonium dihydrogen phosphate as a matrix modifier, silver is determined at 50 ng /g level from geological samples.

Keywords: Silver, Geological samples, GF-AAS, Matrix modifier, Dihydrogen phosphate