

Determination of metals in sulfide ore matrices via the Agilent Technologies 4200 Microwave Plasma – Atomic Emission Spectrometer (MP-AES)

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The Agilent 4200 MP-AES produces a robust and stable nitrogen plasma using magnetically coupled microwave energy. This system provides superior detection limits, extended working range and improved time of analysis for multi element determination compared to flame atomic absorption. A nitrogen gas generator can be used to feed the plasma and source lamps are not required. This significantly reduces operating costs while improving laboratory safety by eliminating flammable and oxidizing compressed gases. The design and operation of this new instrument for elemental determinations will be discussed. Methods developed and results obtained for the multi-element determination of metals in sulfide ore certified reference materials will be presented and compared to results obtained by ICPOES.