



SEMINAR

Invisible gold in bismuth-tellurides and –sulfosalts: correlation trends and crystal-structural modularity

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Monday 16 June, 2.00pm – 2.45
Science Lecture Theatre S11, Bldg 25

Abstract

Bismuth tellurides and –sulfosalts, often occurring closely associated in gold deposits, were recently found to host invisible gold at levels (up to thousands ppm), comparable with those reported elsewhere from arsenian-pyrite. Correlation trends between gold and other minor elements can be discussed in relation with the crystal-chemistry of such minerals. In this talk I will give a background on the structural modularity underpinning possible mechanisms of gold incorporation within the structures with emphasis on tellurides from the tetradymite group. These are mixed-layer compounds for which electron diffraction and high-resolution electron microscopy were used to characterize the chemical-structural modulations and corresponding stacking sequences.

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