

**LOS TELURUROS DE ORO Y PLATA, KRENNERITA, PETZITA Y SILVANITA,
DEL PROSPECTO FÁTIMA, DISTRITO MINERO ORGANULLO, PROVINCIA DE
SALTA**

Werner H. Paar*, Ricardo J. Sureda**, Dan Topa* y M.K. de Brodtkorb***

(*) Institut für Mineralogie, Hellbrunnerstrasse 34, A-5020 Salzburg, Austria.

E-mail: InstMin@sbg.ac.at

(**) UNSa-CONICET, Buenos Aires 177, 4400-Salta, Argentina. E-mail: rjsureda@unsa.edu.ar

(***) CONICET-UBA, J.J. Paso 258, 1640 Martinez, Argentina. E-mail: milkabro@gl.fcen.uba.ar

Abstract

Polymetallic quartz veins at Fátima prospect, Organullo mining district, province of Saha, Argentina, contain gold and silver tellurides. The following compounds were identified: krennerite, (Au, Ag) Te₂, sylvanite, (Au, Ag) Te₄ and petzite, AuAg₃Te₂. Physical data and chemical analyses by EMPA methods of these three precious metal minerals are given. They are associated with minor native gold and other tellurides, such as melonite, NiTe₂, altaite, PbTe, and tellurobismutite, Bi₂Te₃ (?). The telluride assemblage is rimmed by a tetrahedrite mineral group specimen of goldfieldite composition, which forms a large inclusion in tetrahedrite. Other components of the strongly fragmented ore are members of the luzonite-famatinite solid solution series, strongly zoned tetrahedrite group crystals, particularly rich in bismuth (annivite variety), also intergrown in a bismuthiferous paragenesis of bismuthinite, aikinite, emplectite and hodrushite.