MERCURY-BEARING SULPHIDE FROM LUNAR REGOLITH OF MARE FECUNDITATIS

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The article describes in the probe of regolith from Mare Fecunditatis the aglomerate of different silicate particles, containing well formed cubic crystal of native tungsten and unique complex copper and silver sulphide with essential mercury content with composition $(Cu_{10}Ag_2Hg)_{13}S_{14}$. This sulphide differs significantly from two already known minerals of similar qualitative composition – balkanite and danielsite, and it is more close to members of fahlores from tetrahedrite-freibergite series. Whereas the association of native tungsten with mercury sulphide gives evidence that this aggregate is formed under moderate temperatures, which are incommensurable with those, typical for impact processes. Thus, the origin of this aglomerate can be related to Lunar fumaroles activity.

Keywords: regolith, Moon, SEM, microminerals, EDX, tungsten, mercury sulphide.