

MINERALOGIES OF THE METEORITES FALLEN IN TURKEY

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ABSTRACT. - In this study mineral compositions, textures, structures and their relationships with one another of three meteorites which have fallen in various parts of Turkey have been examined. The Şeyhhalil meteorite, being the one of these, displays similar mineral paragenesis, textures and composition with those of the Bursa meteorite. Minerals which occur in both of these meteorites have been differentiated as silicate and ore minerals. Silicate minerals that common in both are orthopyroxene, olivine, plagioclase, serpentine, talc, seriate and clay. Ore minerals, in addition, are kamacite, troilite, chromite, taenite, native copper, ilmenite, mackinawite, and limonite. Trace and very small amounts of rutile, chalcopyrrhotine, whitlockite and apatite are also observed in spongy-like Şeyhhalil meteorite. According to their mineralogical compositions, both of the meteorites might be considered within the "siderolite" class. Ağrı meteorite, on the other hand, might be included within the "octahedral" class and is composed mainly of very scarce amount of troilite; besides, kamacite, taenite and plessite of three different iron-nickel minerals.