

Mineralizations having impregnation character (mudstone-celestite using Dunham's, 1962 classification for carbonate rocks), in a matrix-supported fabric according to background/crystals ratio. This type is widespread, was separated in heavy minerals concentrates too. Also, it borders the massive type of celestite mineralizations and is characteristically closely related to gypsum and anhydrite. Also, it has been considered that the celestite appearing in evaporite sediments of an intertidal environment is primary or early diagenetic. It does not form accumulation of economic importance.

The second type is a massive mineralization of replacement character, a wackestone/packstone celestite, in a crystal-supported fabric. Other authors termed it as "blocky celestite" or "replacement-type celestite". Under the microscope some peculiar euhedral to anhedral shape of turbid-like methasoms of celestite, with a lot of inclusions and syntaxial rims showing an "intersertal texture" evidently disturbed by lack of space could be seen. The host-rock within multiangular space between crystals is subordinated. This type has been developed during diagenetic stage as a true irregular and concretionary celestite bearing ore by redistribution of materials within sediment (diagenetic metasomatism).

The third type is a secondary mineralization, known as "celestite infilling cavities and fractures". This type has been developed in a free space, with syntaxial rims and without inclusions and no host rock. It is white colored, in large fan-like or fibrous or long prismatic crystals or in collomorphous aggregates associated with sulphides. During epidiagenesis stage involving uplift and sub aerial exposure of diamictites as is observed on Valea Sării and Reghiu brooks – the evaporite re-enter in active phreatic zone and a secondary mineralization may develop.

Sedimentological characteristics of Oligo-Miocene coal succession at the North of İstanbul, Northwest Turkey

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The sedimentologic characteristics of coal-bearing Oligo-Miocene deposits occurring at the north of İstanbul have been examined in this study. The study area in Thrace Basin includes coal formations in deltaic deposits of Oligo-Miocene age. Coal-bearing deltaic deposits in this field have been evaluated in the Danişmen formation and the coal bed has been extensively exploited by open-cast methods.

The Danişmen Formation overlies the Eocene-Oligocene Ceylan Formation unconformably and consists of mudstone, sandstone, conglomerate and coal. It is unconformably overlain by the Pliocene deposits. Coal-bearing succession is composed of fining-upward interbedded facies. Five facies were identified in Coal-bearing sediments. These facies are; bedded conglomerates, thick bedded sandstones, organic rich grey mudstones, red mudstone and coal. These facies characterize delta plain deposits. The coal of the Danişmen Formation was deposited in swamps of delta plain. The coal bed in the Danişmen Formation has a thickness of 7.80 m, and the coal rank is of a lignite stage (soft brown coal).