PYRITE FRAMBOIDS IN THE LIGNITE DEPOSIT OF THE PLAKIA – LEVKOGIA AREA, GRETE

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The presence of sulfur in the lignite deposits of Greece, is a serious problem for their exploitation.

This is the reason that, in this paper, the iron sulfide minerals in coal seams of the Plakia-Levkogia area, Crete, are studied.

Pyrite occurs in framboids, euhedral pyrite crystals and in massive form.

Marcasite occurs in minor amounts and only occasionally.

The precipitation of pyrite, as framboids and euhedral pyrite crystals, is due to the bacterial activity and/or to chemical processes. Massive pyrite is observed as fillings or replacement forms of the organic material.

In this paper, the following conclusions can be drawn:

1. Pyrite is the prevalent form of the iron sulfide minerals and marcasite occurs in minor amounts and only occasionally.
2. The first stage of sulfide mineralization appears to be the formation of framboidal pyrite and euhedral pyrite crystals followed by the formation of massive pyrite
3. The iron sulfide minerals are presented into clay-rich zones.
4. The sulfides preferentially precipitate in some places, affected from the nature of the organic material.

BENTONITE AND RELATED DEPOSITS. WORLD ECONOMIC SIGNIFICANCE AND SITUATION IN GREECE

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Within the group of mineral resources, the industrial minerals have surpassed the metallics in world production value since 1950 and today achieve twice the value of the metallics. In the statistics on amounts of all resources, bentonite (elong with attapulgite) ranks 20th (before copper and zinc), in the statistics on value, it ranks 37th. The bentonite group covers about 200 areas of application with prices between 100 and over 100 US $/t.

Greece is one of the leading producers of bentonite, whereby almost all of the benloni-