

The Interrelation of Gypsum/Anhydrite in the Sedimentation of the Saline Miocene in Sicily

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ABSTRACT

The problem of the primary sedimentation of CaSO_4 as gypsum or anhydrite is still strongly disputed.

The saline Miocene of Sicily seems to provide some explanation in this respect. In the reconstruction of the Miocene paleogeography some regions proved to be shallow water areas and others such of deeper water. In the shallow water areas only dolomitic limestone, partly interbedded with clastic intercalations, was sedimented. The areas with deeper water are characterized by thick halite (also potassites). The sulphatic rocks form an intermediary zone. Selenites with a thickness of more than 1,000 feet constitute the transition facies from the carbonatic rock into the basin. In the direction to the deeper water, these selenites change over laterally to fine-bedded anhydrite which on its part represents the CaSO_4 -content in the halite basin. Numerous detail problems are considered in outcrop-photos presented by the author.