COAL RANK VERSUS ILLITE CRUSTALLINITY AND ESTIMATED P-T CONDITIONS: SOME PROBLEMS CONCERNING THE PINDOS, TRIPOLITZA AND PHYLLITE-QUARTZITE SERIES IN CRETE

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Different techniques such as illite crystallinity, coal rank and calculated pressure/temperature conditions have been applied to characterized siliciclastic rocks of the Pindos Series, Tripolitza Series and the Phyllite-Quartzite Series of the nappe pile in Crete. In the high-pressure/low-temperature metamorphic Phyllite-Quartzite Series, coalification of organic particles is retarded with regard to estimated pressure and temperature. This behaviour can give indications on the baric type of overprint, especially in rocks otherwise not suitable for the estimation of metamorphic grade.

This unusual correlation of coal rank versus other parameters have been observed in the Phyllite-Quartzite Series as well as in the Ravdoucha Beds. The Ravdoucha Beds are considered to be the anchimetamorphic substratum of the Tripolitza limestone. Consequently, the Ravdoucha Beds should have undergone a high-pressure overprint. This conclusion is supported by findings of high-pressure indicator minerals such as Si-rich phengites, carpholite (Ravdoucha Beds near Asi Gonia), and lawsonite (Tyros Beds, Peloponnese).

In the Pindos flysch and Tripolitza flysch, there are problems to ascertain the grade of diagenesis because of the presence of detrital material (phyllosilicates, organic particles). Hence, only coal ranks of "in situ" carbonized particles reflect a diagenetic to anchimetamorphic oveprint that affected the series as wholes. Detrital "resedimented" organic particles as well as clay minerals can be related to an older thermal event.

HYDROGEOCHEMICAL AND ISOTOPIC INVESTIGATIONS IN CESME (IZMIR REGION)

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The study area is located in the western parts of the Karaburum Peninsula. The rocks observed in the study area are divided intro three groups. These are Mesozoic