them. At depths greater than 2500 m the interstratified minerals are completely absent and the discrete illite and chlorite prevail because of their more stable structure. This mineralogical paragenesis is due to intermediate grade diagenesis. The vermiculite occurrence is due to the alteration of micas and chlorite. The absence of discrete smectite and kaolinite is due to unfavorable physicochemical conditions for their formation or to rapid deposition of the weathering materials.

STUDY OF CHEMICAL, PHYSICAL AND MECHANICAL PROPERTIES OF THE LIMESTONES IN THE ISLAND OF CHIOS AND OF THE IGNEOUS ROCKS IN THE ISLANDS OF PSARA AND ANTIPSARA

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The chemical, physical and as well as the engineering properties of the limestone beds of the island Chios were investigated and the acidic igneous formations of the islands Psara and Antipsara. From this study it was concluded that the above formations could successfully be utilized as construction material for any type of structures as well as for any case of "marble". Samples were collected from the following areas; Langaras, Kardamila, Agios Georgios, Sycousis, Elata, Korakari, Thymiana and Amades, Psara and Antipsara.

The stone of Thymiana and the acidic igneous formations, besides the above mentioned applications, may also be used, due to their physical properties at various structures as a substitute of bricks.

ON THE RELATIONSHIP BETWEEN ACTIVE TECTONICS AND FLUID CIRCULATION IN THE GEOTHERMAL SYSTEM OF NISYROS CALDERA

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In the geothermal filed of Nisyros Caldera, fluid circulation is controlled by active tectonism. The present landscape has been formed through a series of processes that built and destroyed the volcanic edifice and during which a principal influence was exerted by the major, superimposed, recurrent systems of faults, that appeared in different ages. Conventionally it is believed that the circulation of geothermal fluids is