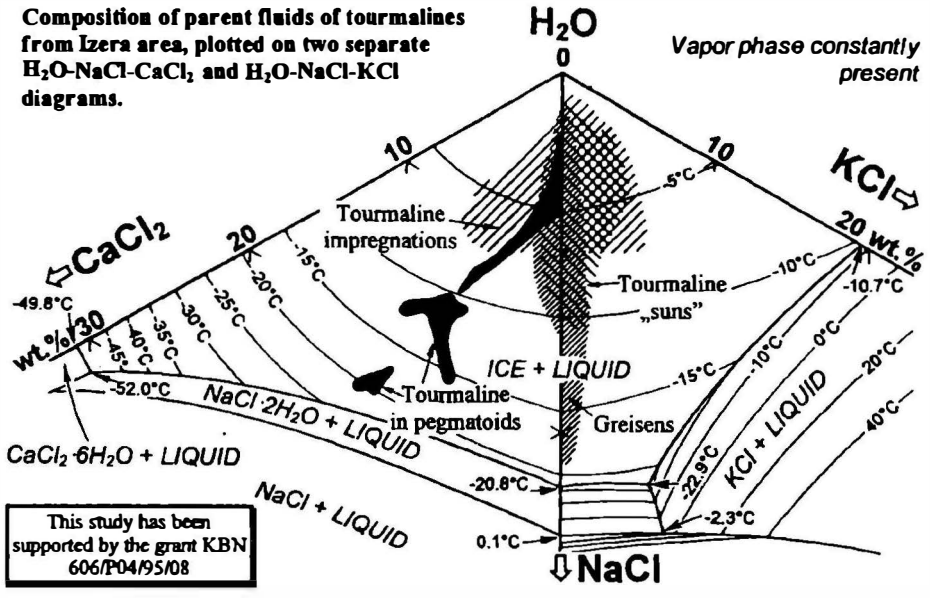

Data on occurrence of fourteen ions in water leachates from fluid inclusions in quartz associated with tourmaline will be presented and discussed.

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FLUID INCLUSIONS IN THE SEDIMENTARY ROCKS FROM THE POLISH LOWLANDS, WESTERN POLAND

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Cements of the Permian sedimentary rocks (Rotliegendes) have been recently studied by means of the fluid inclusion method. The aim of the research in the area west of Poznan´ (Wielkopolska, Western Poland) is to conduct observations and measurements within the boreholes in the gas field Paproc´ and to make special

(vertical and horizontal) analyses as well as comparisons in aspect of the fluid inclusions.

The main idea is to add temperature information to the petrological reconstruction of diagenetic conditions and to trace hydrocarbon migration in the cements discussed.

The present day bottom hole temperature equals in Paproc´ to about 100 °C. Samples come in general from five boreholes from the depths of 2500 - 2800 m being taken, apart from the Rotliegendes, also from the over- and underlying rocks (Zechstein and Carboniferous, respectively). The following types of the Rotliegendes cements have been studied - calcite, -anhydrite, - quartz overgrowths on detrital grains.

Water inclusions occur in general in all the types of cements listed. They are very small (in maximum up to 5 μm), being those mostly of medium salinity and average homogenization temperatures. They are mostly two phase ones, with fairly consistent liquid to vapor ratios. Temperatures obtained in carbonates and anhydrite are comparative in their range to the present borhole values. Quartz rim data are higher. One phase inclusions observed in the upper part of the profile are very small (below 1 μm - 2 μm) or some - in the interval 4 - 8 μm. Only those bigger ones could have been analysed thermometrically. They homogenize at (-104) °C. Raman studies have been done to the selected samples.

The microthermometrical results obtained have been compared with vitrinite reflectance.

Data from the fluid inclusion studies in the Paproc region, being still in progress, represent the first contribution to the reconstruction of the diagenetic history in the area studied.

METAMORPHIC FLUIDS IN THE MEATIQ BASEMENT COMPLEX (EASTERN DESERT, EGYPT): EVIDENCE FOR A "CLOCKWISE" P-T PATH

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The structural and metamorphic evolution of the Meatiq basement complex has been a contentious issue for some time. Two main models involve either the formation of the basement and the covering ophiolite nappes during one orogenic cycle and consequently only one metamorphic event (e.g. RIES et al., 1983), or during at least two orogenic cycles with a polyphase structural and metamorphic history (e.g. EL GABY et al., 1990; WALLBRECHER et al., 1993; NEUMAYR et al.,