Subsurface Temperature, Heat Conductivity and Heat Flow in the Thuringia Basin and Surrounding Areas, GDR *

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Introduction

The origin of heat flow anomalies on the continents and the relationships to the structure of the earth's crust and upper mantle are serious problems. It is well known that there are several types of heat flow anomalies:

1) Positive heat flow anomalies:
   a) anomalies connected with salt domes,
   b) anomalies connected with anticlines of the basement rocks,
   c) anomalies in young sedimentary basins such as the Hungarian or the Precaucasian Basin,
   d) anomalies along young graben-structures such as the Oberrheintalgraben or the Baikal-Rift-System,
   e) anomalies in young orogenic belts,
   f) relative positive anomalies due to recent upward movements of the earth's crust.

2) Low heat flow values or "negative" heat flow anomalies:
   a) regional low heat flow values in the old precambrian shields and platforms,
Fig. 1 - Tectonic situation of the Thuringia and Altmark Basin. (dotted areas).