Paleomagnetic Results from the Paleozoic Area near Graz.

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In the paleozoic area W of the Mur river, 46 sites were sampled. The idea was, to try, if it is possible to find with paleomagnetic methods new indications, wether the paleozoic material is autochtonous-paraautochtonous or allochtonous. The area is tectonical very strong influenced and the stratigraphic control is in some sampling areas not sure, so that the auspicious for getting good results, have not been to hopeful. The materials, which were sampled, were dolomitic sandstones and limestones from Devonian age. On a number of pilotsamples rockmagnetic studies were undertaken, to find the carrier of the remanence, the stability of the intensity and of the direction of the remance-vector. These studies showed the mainly multidomain magnetite as the carrier of the remance.

The results of the paleomagnetic investigation show a grouping in the form of a bend with a mean direction of Dec. 55^{o}; Inc. 43^{o}; (k = 16,5; COFC 19,3).

This bend structure is very interesting, because there are two possibilities of explanation: firstly there are some not cleaned remagnetisation effects and secoundly tectonic reasons. Partial demagnetisation on a number of pilotsamples were carried out to find an answer to the first possibility and one can be sure that these structures can not be a remagnetisation effect.

A comparison with the tectonic structure (B-axis-measurements H. Flügel 1954) shows a good agreement of the B-axis orientation and the pole, which was found by a large circle reconstruction of the paleomagnetic bending structure. The reason for that could be the uplift of the Gleinalmmassiv after the implacement of the material. The overall mean of the area shows, that the paleozoic material which was investigated was rotated over at least 15o to $16o^{o}$ clockwise.