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6 Design strength parameters

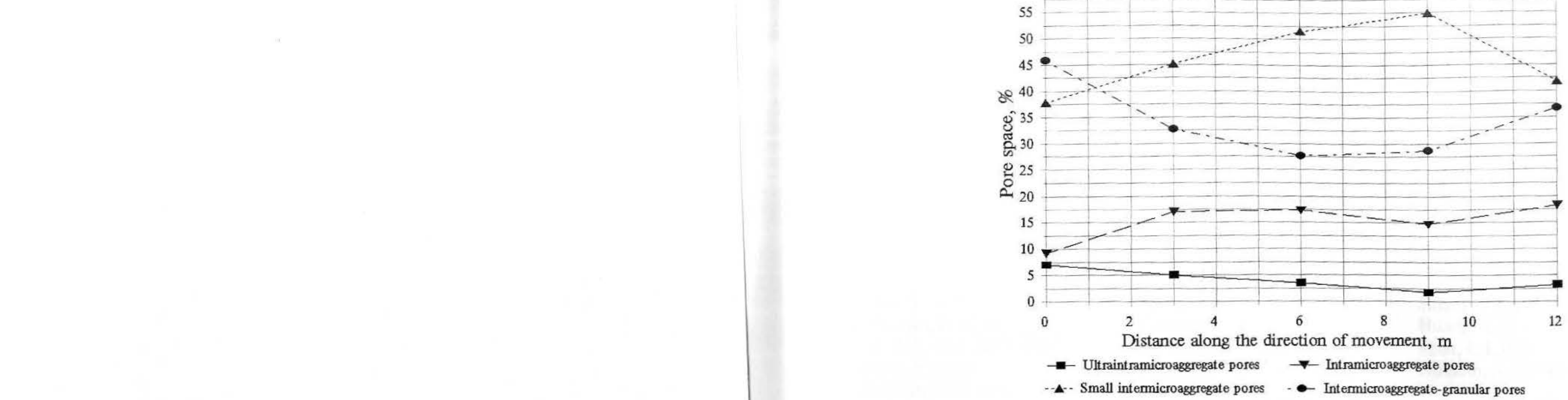

Fig. 4. Transformation of the pore space of soils during flow slide displacement.

practically not followed by sufficient changes of the degree of structural elements orientation (K_a=1.2-9.5%). The highest orientation of the structural elements is observed in the zone of landslide movement, and the lowest - in the zone of accumulation. As a whole the microstructure of all the samples can be classified as medium or low oriented types.

4 CONCLUSION

The studied changes in the soil microstructure during the formation and development of flow slides confirmed, that the process of initiation and displacement of landslide is followed by a sufficient reconstruction of the soil microstructure. The start of deformation is marked by the more intensive alteration in the distribution of the different categories of micropores in pore space, which can be considered as one of the criteria of the beginning of slope displacements.

The very displacement of a landslide appears to begin from the formation of the aggregates. The movement of a flow slide is a relative "rolling", slipping of aggregates. One of the causes of the observed landslide deposits consolidation is the redistribution and denser "packing" of aggregates, having an angular shape in the foot of a landslide which changes to the "rounded particle" one with the landslide movement.

The study of soil microstructure may improve the reliability and the quality of the landslide hazard forecast if included into the complex of investigations for stability of landslide slopes evaluation.

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