

COMPARISON OF THE MAIN PERIODS OF KAOLINITE FORMATION IN SLOVAKIA AND HUNGARY

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The ages of kaolinite-rich sediments in Slovakia and Hungary are compared. Data on Slovakia are taken from the book of KRAUS (1989); Hungarian data were summarised by the author (VICZIÁN, 1987, 1995 and more recent results).

In Slovakia evidences for kaolin formation do not exist in the time span when simultaneously the formation of bauxites is supposed. In Hungary Upper Cretaceous and Eocene kaolinitic bauxites and kaolin-rich sediments of the Ajka Coal Formation are known.

There are Lutetian and Priabonian kaolinitic sediments in the Hornonitrianska kotlina Basin. In Hungary the counterpart is the Middle to Upper Eocene Kosd Formation, which extends from the Balaton area to the Bükk Mts. in the North Hungarian Range.

In the South Slovakian depression, in the basal part of Tertiary (Kiscellian to Eggenburgian), the main clay mineral is kaolinite. Hungarian examples are mentioned from the Paleogene Basin (borehole Balassagyarmat-5, Felsőpetény fire clay deposit), Keszthely Mts., Zagyva Graben, Salgótarján Formation in the Sajó Basin and Lower Miocene of Mecsek area (borehole Gálosfa-1).

In the Badenian to Pontian period the climate was suitable, yet when compared with Oligocene, less favourable, for kaolinite formation in both countries. In Slovakia Badenian, Sarmatian and Pannonian weathering crusts were formed on the top of the volcanic rocks, in Hungary no such crusts or

only few examples of them were preserved (perhaps the Szegi kaolin deposit in the Tokaj Mts.). There are special kaolinite-rich deposits formed by intense destruction of crystalline and volcanic rocks in the Pontian in Slovakia, the Poltár Formation in the Lučenec Basin and in the Subvihorlat area in the east. In the Pliocene kaolinitic weathering crusts developed on the surface of basalts in the area around Lučenec. Such deposits in Hungary are either missing or less well studied.

There are kaolinite-rich red clay deposits of Pliocene to Lower Quaternary age on karstic surfaces in north-eastern Hungary and in the Villány Mts., as well as in the southern Slovak Karst.

References

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