

As a second step, these climatic features are compared with maxima of paleoclimatological curves. These have been plotted on one hand from paleotemperature measurements on *Belemnites* and *Nummulites* specimens (oxygen isotope method), and from palynological data, reflecting relative climatic values obtained by the study of continental paleovegetation.

This comparison points out markedly the time intervals of optimum conditions of bauxitization. Accordingly, the majority of bauxite deposits in Hungary seems to have been formed during the Albian.

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Siliceous Unicellulars. Their Use for Faciology and Biostratigraphy

(A b s t r a c t)

The study of siliceous unicellulars is of increasing importance. Particularly so in the case of sediments containing no other kind of microfossils.

In Hungarian Geological Institute siliceous unicellulars are evaluated also from the point of view of applied geology.

Siliceous unicellulars are to be found most likely in acidic tuffs and tuffites, or in diatomites accompanying these.

The composition of these assemblages is controlled by the chemical and physical characteristics of the given water medium. Light, temperature, agitation, chemism of the water are decisive for the propagation of these microorganisms. Changes in these involve changes in both the sediments and the assemblages enclosed.

The most sensitive indicators of such alterations are the diatoms.

Consequently paleobotanical conclusions are based first of all on diatoms. However, for faciological and microbiostratigraphic evaluations the whole assemblage should be taken into account: *Archaeomonas*, *Silicoflagellata*, *Ebriida*, *Diatomea*, *Phytolitharia*, *Radiolaria*, accompanied by fragments of siliceous sponges. Chitinous tests of planktonic forms "incertae sedis" of characteristic morphological features, also occur; these may be of considerable stratigraphic value.

In Hungary, important diatomites are known to occur in the foreland and in some marginal basins of the Mecsek and Bakony mountains. Their age varies from Liassic through Oligocene, Miocene and Pliocene to Holocene. "Marker species", of short haemeras, may be used for stratigraphic dating the age. In the Tertiary, assemblages can be used even for detailed geochronological zonation and even for longdistance correlation with the neighbouring countries.