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Features of Endogenous Fissility within Chalkstones of Donbass Carbonous Deposits

Basic system and frontal system of endogenous fissility are well-marked within chalkstones, and are traced at considerable distances. They are located perpendicularly to formation or close to it, and deviations are no more than 5-10 degrees.

Azimuth of heading extension of the basic system of endogenous fissility of chalkstones of Donbass coal-bearing strata modifies from 335 to 25 degrees.

Surfaces of fissures are undulating. As a rule, surface endogenous fissures are open with one to several centimeters heave. Sometimes fracture cavities consist of calci-spar, clay matter and dripstones of hydrous ferric oxides.

Beds of chalkstones are often nonuniform. As a rule, they consist of interstratified beds of robust carbonaceous rocks, and thin interbeds of clay rocks (sometimes sandy and clay rocks). Thickness of some layers as well as total thickness of chalkstone beds varies greatly within carbonous deposits.

The studies help to determine statistic relation between consistency of primary fissility within chalkstone beds and their structure, and physiographic and textural and structural features. The relation is that seam structure complication, sharp modification of its morphology (its thickness increase or decrease), prevailing finer particle-size fractions, detrital particles as well as total fine-grained structure is followed by increase in consistency of basic fissility.

Maximum distance between endogenous fractures is within medium-grained and coarse chalkstones located in roof of coal beds of OC grade (average distance between fractures is 180cm), and minimum is in algal fine-grained chalkstones lying close to coal seams of D grade (average distance between fractures is 24cm).

Availability of organic deposits as well as coarse chalkstones under all other equal conditions favours reduction of endogenous fissility.

When level of epigenetic changes increases, fissility of chalkstones decreases.