

## **Geological factors of spontaneous coals combustion.**

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The spontaneous combustion of coals is the combustion due to their temperature rising as a result of acidification processes. First explorers tried to explain this phenomenon by a single reason: presence in coals of some organic or non organic components, bacterias, absorption or chemi sorption of oxygenium. These theories did not take into consideration conditions of coal seams and nature of their exploration.

Further studies in this area showed that the endogenic fire was caused by series of physical – chemical properties and quality of coals, geologic and mining conditions.

The example of Moscow lignite basin demonstrates, that the spontaneous coal combustion is substantially connected with geological conditions of coals seams and quality of coal (geologic factors), which are quite possible to learn at the stage of coal exploration without expenses for extra studies. To the geologic factors of spontaneous coal combustion refer the extent of coals metamorphism, seam thickness and stratification depth, angle of its slope, nature of adjacent strata, disturbance, petrographic composition, sulphurcontents, humidity, mineral composition.