

COAL FACIES IN THE SANTA TEREZINHA COALFIELD, RIO GRANDE DO SUL, BRAZIL, AS DETERMINED BY DIFFERENT PETROGRAPHIC METHODS

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For many years coal facies studies and depositional environments characterization have been done on the basis of the microlithotypes composition. From the 80 onwards maceral analysis played an important role on this subject.

Now a days many different methods of facies assessment are applied mainly to mineral matter-poor coals from the Northern Hemisphere.

In this paper nine methods of coal facies determination were applied to three coal seams from the Santa Terezinha Coalfield, South Brazil.

The maceral analysis showed that vitrinite is the predominant maceral group followed by inertinite and liptinite; mineral matter reaches 30%.

The comparison of the results obtained by different methodologies showed that the same coal seam was classified under different coal facies developed in different environments.

On the reasons for such variations is attributed to the fact that mineral matter contents were not taken into consideration. Consequently, we suggest that in the future organic facies and paleodepositional environments should be studied within the framework of stratigraphic, sedimentological, palynological and paleobotanical investigation.

On the basis of this findings two proposals have been made for facies and environmental analysis of South Brazilian coals taking into account all coal components.