Coking coals of Mongolia
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Abstract
The coal deposits of Mongolia tend to become younger from west to east and can be subdivided into two provinces, twelve basins, and three areas (Fig. 1). A total of 400 coal occurrences and deposits are known, of which 100 have been explored (Bat-Erdene., 2012).

Mongolian coal-bearing basins
Mongolian coal deposits are classified into two coal-bearing provinces (Western and Eastern Mongolia), two subprovinces, and three areas (Fig. 1). A total of 400 coal occurrences and deposits are known, of which 100 have been explored (Bat-Erdene., 2012).

Some of the biggest coking coal deposits of Mongolia
Four coking coal deposits such as Pennsylvanian Nuurkhetkhot, Upper Permian Khurengol and Tavan Tolgoi, and Lower-Middle Jurassic Ovoot are selected to present here.

Western Mongolian province includes two basins and two areas (Fig. 1, 2). The Pennsylvanian sequence is the most prolific coal-bearing unit (Erdenetsogt et al., 2009).

Eastern Mongolian province is the largest coal and oil shale-bearing province (Erdenetsogt et al., 2009) and comprises six coal and oil shale-bearing basins. The coal presence mainly associated with Lower Cretaceous sequences.

Other basins and area
Main coal resource in South Gobi basin is hosted in Upper Permian sedimentary rocks. The basin contains predominant portion of coking coal reserves of Mongolia. Coal seams of Southern Khangai, Ik Bogd, and Ongi river basins are hosted in Upper Permian, Lower-Middle Jurassic, and Lower Cretaceous sedimentary sequences. Orkhon-Selenge area is composed of 20 scattered small grabens are filled with coal-bearing Jurassic and Lower Cretaceous sedimentary rocks.

Coal quality
Nuurkhetkhot coals have 1.7-7.5% vitrinite swelling number (CSN) and 0.86 G-index. Vitrinite reflectance value (R0, in oil) varies from 0.7% to 1.2% and sulfur content is low, ranging from 0.3% to 0.6% with an average of 0.4%. Khurengol coals have CSN and G-index of 8.9 and 54-99, respectively. Vitrinite reflectance value ranges from 1.1 to 1.7% (average 1.4%) and sulfur content varies between 0.2% and 0.6% (average 0.4%).

Tavan Tolgoi coals have CSN of 1 to 7.5 and R0 about 0.7% to 1.2%. Sulfur content is low, ranging from 0.5% to 0.9%. Average CSN and G-index of Ovoot coal are 9 and 88, respectively. Vitrinite reflectance value ranges from 1.1% to 1.3% (average 1.2%) and sulfur content varies from 0.8% to 1.4% (average 1.0%).

Resources

*Note: deposit average; raw coal, air dry basis

**References**

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