

### Characterization of Kazakhstan Coal for Gasification Process

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The energy production from coal in Kazakhstan (2009) accounts for 32% (49Mtoe) of overall energy production (154Mtoe). Especially, power generation by coal accounts for 70% of total power generation facilities. Therefore, the dependence on coal in Kazakhstan is very high. In Kazakhstan, as part of the "Blue fuel" development, interest has increased significantly in coal gasification technology. If this technology is commercialized, the annual coal consumption in Kazakhstan will increase 30-50% by annual basis. The gasification information of Kazakhstan coal will be valuable for further, industrial research and development. In this study, two Kazakhstan coals (bituminous, lignite) are chosen for the candidate of coal gasification. Proximate and elemental analysis, ash fusion temperature analysis of coal are performed. The kinetic properties of coal are determined in an isothermal condition. On the basis of this information, gasification coal and optimum conditions will be delivered.