

### Evaluation of Catalytic Activity of Ash from CO<sub>2</sub> Gasification of Inner Mongolian Lignite

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The catalytic activity of the ash was evaluated in the gasification of Inner Mongolian lignite at temperature of 700°C–900°C with CO<sub>2</sub> partial pressure of 0.6 atm. Simulated ash was prepared by mixing different oxides to give alkali indices of 2.83, 5.66 and 8.49. Using simulated ash, the gasification rate was found to be two times faster than the gasification using the fresh coal while no significant increase as the alkali index was increased. Using the original actual ash, gasification rate decreases due to increase in silica content of the actual ash.