

Experimental study on physical characteristics of coal ashes

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The ashes that consist of minerals were produced after reaction including combustion and gasification in boiler and gasifier. The slagging and fouling were generated by ashes which were transformed from solid to liquid or melted solid. That phenomena was why it is difficult to operate boiler and gasifier. So, many studies were performed to clarify slagging and fouling from ash mechanism.

The goal of this study was to provide the data base that analyze physical characteristics for slagging and fouling. Also, the data was utilized input parameter of numerical study. Experiments and component analysis were performed for 2 coals of power plant and 1 coal of gasification. The 3 coals were investigated fusibility, thermal conductivity and viscosity.