

An Experimental Study on Devolatilization Kinetics of Coal Using a Wire Heating Reactor

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Kinetic analysis of coal devolatilization in a Wire Heating Reactor(WHR) was made for two different coals ; subbituminous coal, Wira, and bituminous coal , Yakutugol. Devolatilization of the two coals were studied at different temperature in a WHR. In this study, temperature were changed from 600 to 1300°C. On the basis of the analyses of the total volatiles yield and measured temperature of coal particle, the kinetic parameters of the devolatilization for Wira and Yakutugol coals were estimated by applying Coats-Redfern.