

SUPERFICIAL REACTION OF CARBON BLACK WITH OXYGEN

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Combined thermal and gas analyses are employed to investigate the kinetics of carbon black oxidation at temperatures $\geq 100^{\circ}\text{C}$. Relative reactivities have been determined as a function of surface properties (i. e., area, microstructure, chemistry) and impurity levels. Critical autoignition parameters are estimated using a computer modeling technique which corrects for variations in sample geometry and heat transfer.