Modeling the Asymmetric Burning of Agglomerate Particles

CLINTON RICHMOND — A model has been developed to describe asymmetric burning effects due to oxide caps or other substances on the surface of agglomerate particles. The model accounts for the burning behavior of single particles when they are combined together in an agglomerate of particles. The model calculates the available surface area that is exposed to burning by the geometric formation of the agglomerate of the combining particles. Averaging analytic techniques are applied to the burning behavior of the agglomerate of particles so that its burning effects can be compared to the burning effects from the uncombined, single particles.