

GAS ABSORPTION BY LIQUID DROPS – APPLICATION TO POLLUTION CONTROL TECHNOLOGY

Chaim Gutfinger

Faculty of Mechanical Engineering,
Technion – Israel Institute of Technology, Haifa, Israel

ABSTRACT

Absorption of gaseous contaminants into liquid drops is a common method for reduction of pollutants from waste gases. In several applications, the drops contain suspended solids, which dissolve and enhance gas absorption. The most common devices for flue gas desulfurization (FGD) in power stations are spray towers, in which sulfur dioxide, and other acidic components such as HCL and HF are absorbed into slurry drops containing limestone particles. The limestone particles dissolve and provide alkaline species for neutralizing the absorbed acidic components.

The lecture reviews the research published on gas absorption into liquid drops and its application to design of equipment for pollution control.