GAS CLEANING EFICIENCY AS A FUNCTION OF THE CHARGED LIQUID DROPS EVAPORATION

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ABSTRACT

One of the ways of improvement of functioning parameters of wet scrubbers is the use of electrostatic charging of particles in electric field. The electrohydrodynamic disintegration of charged droplets changes the conditions of heat and mass transfer between liquid and gas phases in the charged aerosol flow. The electrohydrodynamic disintegrations of charged droplets increase the probability of collection of submicron particles from flue gases. The coefficient of electrocoagulation of fine and strongly charge siblings with solid particles is higher than the corresponding parameter of the mother droplet. New approaches for generation of fine and strongly charged liquid droplets by using of novel form of electrostatic sprayers are proposed.

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