

## “Froths, Foams and Bubbles in Industrial Flotation Processes”

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In most industrial flotation processes, particles are transferred from the collection zone of the cell (by attachment to bubbles) to the froth phase and the efficiency of this transfer process is defined as the froth or foam recovery. Froth decay (bubble coalescence) reduces the bubble surface area flux across the froth phase and increases the particle detachment rate. Overall, the recovery and grade of concentrate are strongly influenced by the structure of the froth which can be modified by the types and concentrations of chemicals used in the processing.

Hence the foam or froth phase in flotation is probably the most important part of the process. However, the physical chemistry has been considerably neglected phase in flotation research contrasting with the importance which has been injected into research into chemical collectors which hydrophobize the particles. This is due to complexity of the three phase froth which consists of the aqueous phase, the gas and the mineral particle. In this paper, we covers several important physical chemical aspects of frothers in flotation.

