

Mono-Component Droplet Heating and Evaporation: Classical and Advanced Models

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Classical models of mono-component droplet heating and evaporation, mainly those developed by Abramzon and Sirignano (1989), are discussed in detail. Advanced models of these processes, mainly developed by the author and his colleagues are reviewed. These advanced models take into account the effects of finite thermal conductivity and recirculation inside droplets, the effect of the moving interface during droplet evaporation on droplet heating, and kinetic/molecular dynamic effects on droplet heating and evaporation.