

Internal Seminar

Dripping dynamics from a tilted nozzle Amaraja P Taur University Malaya, Kuala Lumpur

The dripping dynamics of Newtonian liquids emanating from a tilted nozzle is studied. The experiments reveal that increasing the nozzle inclination angle results in lowering the drop breakup times for all viscosities and nozzle diameters investigated, suggesting that the surface tension forces cannot hold the drops longer despite the weakened effective gravitational pull. This counterintuitive finding is further corroborated by pendant drop experiments and computations. A phase diagram showing the transition between the different dripping modes for different nozzle inclination angle is constructed in the (We, Ka) space. Later the correlation is developed for drop volumes from parameters being studied showing maximum of 10% error with experiments.

Wednesday, Sep 19th 2018 4:00 PM (Tea/Coffee at 3:30 PM) Seminar Hall, TIFR-H