

# Filament breakup of fat-based food emulsions during spraying

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Emulsions are widely used in food industries and are mostly non-Newtonian fluid (shear thinning). Spraying process is applied for powder production out of the emulsions. The filament breakup behaviour influences the powder product during atomization. We are trying to investigate the extensional behaviour of fat based emulsions (by CaBER experiment), and find out its influence on filament elongation and breakup. The filament elongation and breakup studies are carrying out supported by high speed camera (max. 120k frames/sec). Aim of the present study is to examine the maximum elongation and then primary breakup of droplets. Finally, experimental study is to observe the influence of the stressing of filament on the emulsion droplet and final particle size through spraying.

(Ongoing research, therefore, there is no significant results yet!)

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