

Abstract Submitted
for the DFD09 Meeting of
The American Physical Society

Extensional dynamics of viscoplastic filaments ANJA SLIM, NEIL BALMFORTH, NEVILLE DUBASH — A one-dimensional slender-thread model is used to explore viscoplastic dripping under gravity and the controlled extension of a liquid bridge. We describe dynamics up to pinch-off and consider the possibility of using measurements in the two configurations (eg. drop volume) to infer rheological parameters. The model results are compared with experiments using aqueous solutions of Carbopol and kaolin suspensions.

Anja Slim

Date submitted: 07 Aug 2009

Electronic form version 1.4