

Liquid jet eruption from hollow relaxation: Supplementary Material

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Here is addressed the influence of viscosity on the ballistic trajectory. Experimental analysis of the maximum jet height Z_{exp} reveals that under a viscosity threshold of about $\mu = 100$ mPa.s the assumption of ballistic jet is excellent. Good agreement is still obtained with higher viscosities, though deviations as high as 20% can be observed with liquids a thousand times more viscous than water.

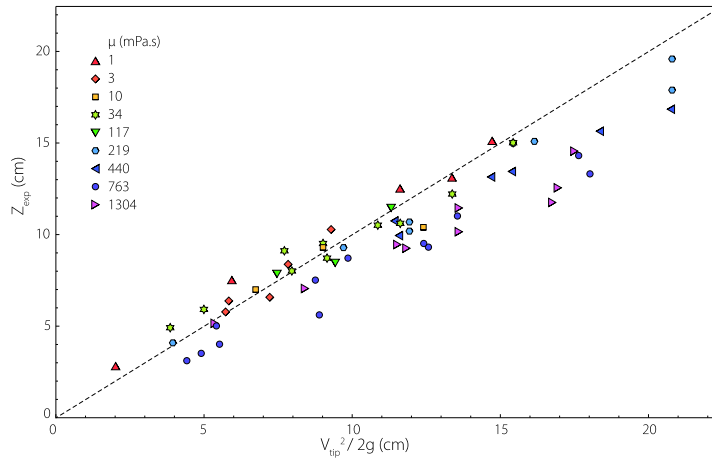


FIG. 1 - Experimental maximal jet height Z_{exp} compared to the ballistic value $Z_{\text{th}} = V_{\text{tip}}^2/2g$.

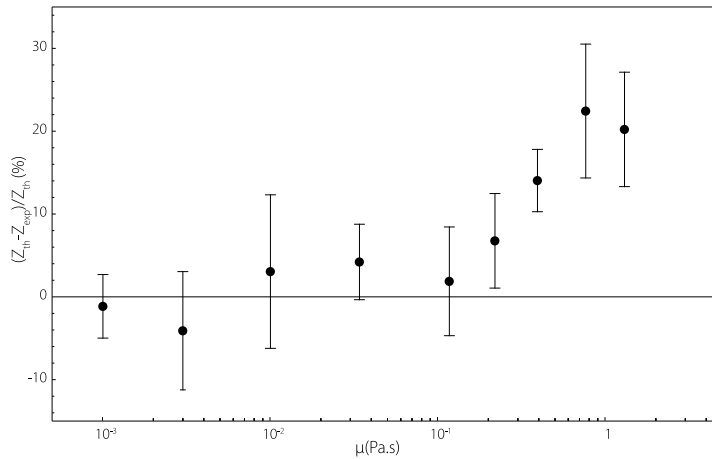


FIG. 2 - Relative error between the observed and the ballistic jet height as a function of viscosity μ .