Emission modes in electro co-flow

JOSEFA GUERRERO MILLAN, Augusta University, ANTONIO J HIJANO, MIGUEL A LOBATO, IGNACIO G LOSCERTELES, Universidad de Malaga, ALBERTO FERNANDEZ-NIEVES, Georgia Institute of Technology — We use glass-based microfluidic devices to study the emission regimes in electro co-flow. In contrast to classical electrospray, in electro-coflow a liquid is ejected through a nozzle into another co-flowing liquid. As a result, additional parameters provide control over the emission; these include the viscosity and flow rate of the outer, co-flowing liquid. These two new variables affect the parametric window where typical emission modes in electrospray are observed, and result in the observation of new modes that have not been reported before.