Abstract Submitted for the DFD13 Meeting of The American Physical Society

## Effect of Inhomogeneous Flow on Micro-scale Biomedical Gas S.

SEN, National Institute of Aerospace and College of William & Mary, Hampton, VA 23666 — In this work the effect of a radially varying parallel equilibrium flow on the stability of the Rayleigh-Taylor mode is studied in a micro-scale confined gas in a biomedical system. It is shown that the parallel flow curvature can completely stabilize the mode. The flow curvature also has a robust effect on the radial structure of the mode. Possible implications of these findings are also discussed.

S. Sen National Institute of Aerospace and College of William & Mary, Hampton, VA 23666

Date submitted: 02 Aug 2013

Electronic form version 1.4