

Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Acoustic modulation of pharmaceutical sprays SORIN MITRAN, UNC, HUGH SMYTH, UNM, ANTHONY HICKEY, UNC — We consider the effect of acoustical radiation upon the particle size distribution in pharmaceutical sprays. A mixed particle hydrodynamic-Eulerian technique is used to model the propagation of acoustic waves through the spray and the effect of the acoustic radiation upon spray droplets. A model for droplet breakdown based upon normal mode oscillations is employed to capture acoustically induced modifications of the particle size distribution. Measurements are presented for metered dose inhalers and compared to theoretical predictions.

Sorin Mitran
UNC

Date submitted: 30 Nov 2005

Electronic form version 1.4