Abstract Submitted for the DFD06 Meeting of The American Physical Society

Growth and dissolution of an encapsulated microbubble used for diagnostic ultrasound KAUSIK SARKAR, PANKAJ JAIN, University of Delaware — Steady dissolution of a bubble with two gases and a permeable shell has been modeled. At first the shell is modeled without elasticity. Factors such as permeability of the shell, surface tension, mole fraction of the osmotic agent, gas concentration in the bulk have been varied to study the growth and the time scale for dissolution of the bubble. It has been found that the inclusion of shell elasticity also plays a vital role in the growth and dissolution of the bubble.

> Kausik Sarkar University of Delaware

Date submitted: 07 Aug 2006

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