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**Sze-Bi Hsu** and **Junping Shi\*** (jxshix@wm.edu), Department of Mathematics, College of William and Mary, Williamsburg, VA 23187, and **Feng-Bin Wang**. *Further Studies of a Reaction-Diffusion System for an Unstirred Chemostat with Internal Storage*.

The dynamics of a reaction-diffusion system for two species of microorganisms in an unstirred chemostat with internal storage is studied. It is shown that the diffusion coefficient is a key parameter of determining the asymptotic dynamics, and there exists a threshold diffusion coefficient above which both species become extinct. On the other hand, for diffusion coefficient below the threshold, either one species or both species persist, and in the asymptotic limit, a steady state showing competition exclusion or coexistence is reached. (Received January 19, 2015)