Abstract Submitted
for the DFD11 Meeting of
The American Physical Society

Modeling and 3-D Simulation of Biofilm Dynamics in Aqueous Environment QI WANG, Univ. of South Carolina — We present a complex fluid model for biofilms growing in an aqueous environment. The modeling approach represents a new paradigm to develop models for biofilm-environment interaction that can be used to systematically incorporate refined chemical and physiological mechanisms. Special solutions of the model are presented and analyzed. 3-D numerical simulations in aqueous environment with emphasis on biofilm- ambient fluid interaction will be discussed in detail.

Qi Wang
Univ. of South Carolina

Date submitted: 21 Jul 2011 Electronic form version 1.4