

Abstract Submitted
for the MAR07 Meeting of
The American Physical Society

Lattice Model Investigations of Protein Aggregation YANXIN LIU,
PREM CHAPAGAIN, JOSE PARRA, BERNARD GERSTMAN, Department of
Physics, Florida International University, Miami, FL 33199 — Protein aggregation
is known to be important in a variety of diseases. We have expanded a well-known 3-
dimensional protein folding computer lattice model with explicit side-chains in order
to investigate the thermodynamics and statistical mechanics of protein aggregation
between two chains. The modeling of a two-chain system presents technical and
physics issues in addition to those found when modeling only a single chain. We
report on preliminary results of the simulations.

Yanxin Liu
Department of Physics, Florida International University, Miami, FL 33199

Date submitted: 17 Nov 2006

Electronic form version 1.4