Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Self-assembled structures in immiscible systems of active, switchable nanocolloids[1] ANTONIO OSORIO-VIVANCO, University of Michigan, IGAL SZLEIFER, Northwestern University, SHARON GLOTZER, University of Michigan — We consider the synthesis and fabrication of active building blocks that can dynamically switch between two or more states and assemble into novel structures. We present novel steady-state structures predicted by computer simulation to assemble in systems of switchable, immiscible building blocks. We discuss the dynamics that stabilize these structures, explore approaches to analyze the dissipative nature of the system, and provide a mapping to experimental colloidal systems where these concepts could be implemented.

[1]Non-Equilibrium Energy Research Center (NERC), an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences under Award Number DE-SC0000989

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Date submitted: 11 Nov 2011 Electronic form version 1.4