Abstract Submitted for the MAR09 Meeting of The American Physical Society

Dynamic light scattering in an aqueous solution of 3methylpyridine¹ DIMITRY IVANOV, ANNA TRUBETSKAYA, University of Maryland, ANDREI KOSTKO, Virginia Commonwealth University , MIKHAIL ANISIMOV, JAN SENGERS, University of Maryland — We report a set of dynamic light scattering experiments in an aqueous solution of 3-methylpyridine. The dynamic correlation functions appear to exhibit two modes: one associated with a normal diffusion process and another one with network relaxation. The observed correlations seem to be associated with long-living nonequilibrium structures. To obtain further insight into this phenomenon we have made systematic studies of the nature of the observed dynamics as a function of time and concentration.

¹Research is supported by the Petroleum Research Fund, ACS

Jan Sengers University of Maryland

Date submitted: 21 Nov 2008

Electronic form version 1.4