

Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Phase transition of physically confined 2-decanol HARRISONN
GRIFFIN, SAMUEL AMANUEL, Union College — We have studied phase transition of physically confined 2-decanol in nano porous silica using power compensated differential scanning calorimeter (DSC). Like bulk, the physically confined also exhibit hysteresis between its melting and freezing temperature. However, its thermal history plays significant role in determining its freezing temperature. The melting temperature, on the other hand, did not show similar changes with respect to thermal history, suggesting that it is truly driven thermodynamically rather than kinetically. In addition, there seems to be a cutoff in size where crystallization front could not proceed.

Samuel Amanuel
Union College

Date submitted: 15 Nov 2013

Electronic form version 1.4