

Abstract Submitted
for the OSF09 Meeting of
The American Physical Society

Raman spectral analysis of wet-spun films of CaDNA with varying amounts of CaCl₂ as a function of relative humidity M. SCHWENKER SMITH, SCOTT LEE, Un. of Toledo, ALLAN RUPPRECHT, Un. of Stockholm — Raman spectroscopy has been used to probe the amount of DNA in the B conformation in wet-spun films of CaDNA which contain varying amounts of CaCl₂ as a function of relative humidity. This determination is made by measuring the intensity of the B-form marker band (at about 834 cm⁻¹) relative to a vibrational mode localized in the bases. Our experiments show that CaDNA is in the B conformation from 98% relative humidity (rh) down to 75% and is disordered at lower humidities. Interestingly, a maximum in the relative amount of B-DNA is observed near 80% rh.

Scott Lee
Un. of Toledo

Date submitted: 17 Sep 2009

Electronic form version 1.4