



**Page 12. Figure 10.** Top panel (A) shows the high FRET close conformation and the low FRET open conformation. Panel B, middle graph, shows the expected effect on the autocorrelation and cross correlation curves if the opening and closing reaction occurs with a characteristic relaxation time of 20 microseconds. The bottom graph shows experimental data for the auto and cross-correlation. The cross-correlation shows the characteristic anti-correlated behavior. The characteristic inter-conversion time was 20 microseconds.