

Abstract Submitted
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Flexibility of the sugar moiety of nucleosides at high pressures

SCOTT LEE, University of Toledo — In this poster we review our recent high pressure experiments on deoxyadenosine, adenosine, deoxycytidine and cytidine via mid-infrared absorption. These experiments reveal the presence of phase transitions near 2 GPa in these four different nucleosides. The spectroscopic evidence indicates that the sugar pucker changes at the phase transition in all four nucleosides. Differences between the deoxyribose nucleosides and the ribose nucleosides are compared to the known differences in the conformational flexibility of DNA and RNA.

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