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Low frequency Raman study of the nucleosides CRAIG KOONTZ, SCOTT LEE, University of Toledo — In both transcription and replication, the two helices of the DNA molecule move apart. Consequently, vibrations involving the relative motions of large portions of the molecule with respect to one another are of intrinsic interest. Such vibrations have relatively low frequencies because they involve weak bonds and large masses. Low frequency modes are difficult to observe in Raman spectroscopy because they are very close to the signal from the Rayleigh scattered light (which is very intense). In this poster, we will describe our results for the eight nucleosides: adenosine, deoxyadenosine, guanosine, deoxyguanosine, cytidine, deoxycytidine, uracil and deoxythymidine.

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