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Phase transitions in deoxyadenosine at high pressures: A mid-infrared study. S.A. LEE, University of Toledo, L. LETTRESS, A. ANDERSON, University of Waterloo — Crystalline deoxyadenosine has been studied via infrared spectroscopy at room temperatures up to 10 GPa of pressure. Samples, typically 250 microns in diameter and roughly 25 microns in thickness, were loaded into a piston-cylinder type diamond anvil cell supplied by Diacell Ltd. and fitted with type IIa diamonds. To avoid saturation of strongly absorbing modes, the deoxyadenosine sample was diluted with KBr powder, which also served as an isotropic pressure-transmitting medium. Significant changes in the infrared spectra are noted near two different pressures: about 2 GPa and about 4 GPa, suggesting two separate phase transitions.

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