

Abstract Submitted  
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**Pressure Dependence of the Phonon Modes of Hexagonal-  
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tion of Washington, SUNG BAEK KIM, SANG-WOOK CHEONG, Dept. of Physics  
and Astronomy, Rutgers University — We present high pressure IR measurements of  
the phonon spectra of HoMnO<sub>3</sub> and YMnO<sub>3</sub>. Measurements were conducted over  
the pressure range ambient to  $\sim 20$  GPa. No phase changes were observed over this  
broad range of hydrostatic pressures. A strong non-linear variation of frequency  
with pressure is observed suggesting saturation at higher pressures. A discussion of  
the effect of hydrostatic pressure on the ferroelectric properties of these systems will  
be given based on comparisons with density functional calculations.

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