

Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Forward Raman scattering in ZnO: observation of phonon polaritons¹ D.A. TENNE, T. ENGMAN, A.K. FARRAR, Department of Physics, Boise State University, Boise, ID 83725, USA — Single crystal wurtzite ZnO samples have been studied by forward Raman scattering. Spectra were measured at 295 and 75 K using 442 and 448 nm laser lines for excitation below the fundamental absorption edge. Measuring spectra in forward geometry at varied scattering angles allowed achieving small and variable magnitudes of phonon wave vector necessary to observe a polariton effect. The observed frequencies of the polaritons formed by A_1 TO phonons will be compared to the calculated dispersion of phonon polaritons in ZnO.

¹Supported in part by NSF Grant DMR-1006136

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Date submitted: 13 Dec 2011

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