THE $\tilde{A}-\tilde{X}$ AND $\tilde{B}-\tilde{X}$ ABSORPTIONS OF NO $_3$ TRAPPED IN SOLID NEON

MARILYN E. JACOX and WARREN E. THOMPSON, Optical Technology Division, National Institute of Standards and Technology, Gaithersburg, MD 20899-8441.

Absorptions arising from the $\tilde{A}-\tilde{X}$ transition of normal and isotopically substituted NO₃ have been observed between 7500 and 9500 cm⁻¹. Details of the spectra will be discussed and assignments will be proposed. Absorptions arising from the $\tilde{B}-\tilde{X}$ transition of NO₃, with band origin near 15 000 cm⁻¹, have also been observed for the normal species and two of its isotopologues which possess D_{3h} symmetry. As in the gas phase, the absorptions are broadened because of predissociation. The observed band structure corresponds closely with that reported for the gas-phase molecule.