

INTRACAVITY LASER SPECTROSCOPY OF PtC and PtO IN THE NEAR INFRARED

LEAH C. O'BRIEN, HUI LIU, JEREMY WOOD, *Department of Chemistry, Southern Illinois University, Edwardsville, IL 62026-1652*; SADASIVAN SHAJI, JAMES J. O'BRIEN, *Department of Chemistry, University of Missouri, St Louis, MO 63121-4499*.

PtC bands at 12546.9 and 12655.9 cm^{-1} were recorded with a intracavity laser absorption spectroscopy (ILS) with a solid-state-pumped Ti:sapphire laser. The (0,0) $A_3 0^+ - x 1_e$ band of PtO was also recorded with ILS. Improved line positions and molecular constants are provided for these molecules. The PtC and PtO molecules were produced using a platinum-lined hollow cathode in a helium-based electric discharge with 5-8% oxygen.