FOURIER TRANSFORM SPECTROSCOPY OF AuO

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The near infrared spectrum of AuO has been recorded using the Fourier transform spectrometer associated with the National Solar Observatory at Kitt Peak, AZ. The gas phase AuO molecules were produced in a neon-based electric discharge using a gold-lined hollow cathode with a trace amount of oxygen. Two bands were observed in the spectrum, with red-degraded bandheads located at 10665 and 10726 cm^{-1}. These bands have been analyzed and are assigned as the (1,1) and (0,0) bands, respectively, of a $\Pi_{3/2}$ - X $^2\Pi_{3/2}$ transition. Results of the analysis will be presented.