

THE NEAR INFRARED SYSTEMS OF NICKEL CHLORIDE

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The near infrared electronic transitions of NiCl were recorded from 9,000 to 15,000 cm^{-1} with the Fourier transform spectrometer associated with the McMath-Pierce Solar Telescope, Kitt Peak, AZ. Two new electronic states at 9,100 cm^{-1} and 10,500 cm^{-1} were observed for the first time. The NiCl molecules were produced in a King-type carbon tube furnace operating at 1500 C and at a total pressure of approximately 400 torr. The electronic transition energies and vibrational constants for the states involved in the near infrared systems will be presented.