THE INFRARED AND NEAR-INFRARED SPECTRUM OF HNO TRAPPED IN SOLID NEON

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Although the positions of the vibrational fundamentals of HNO—an important reaction intermediate in the chemistry of combustion and of the terrestrial atmosphere—have been definitively established for more than thirty years, very little is known about the behavior of its vibrational overtones and combination bands. Moreover, its NH-stretching fundamental, which is anomalously low in frequency, blue-shifts when HNO is trapped in solid argon. Measurement of the infrared and near-infrared spectra of HNO trapped in solid neon explore this latter phenomenon and provide the first experimental measurement of the positions of several of its overtones and combination bands.