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Title

Submillimeter-wave spectroscopy of the K=2-1 subband of the Ne-CO complex

Source

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Abstract

The pure rotational spectrum of the Ne-CO van der Waals complex has been measured in the frequency range of 208-230 GHz by using the Cologne supersonic jet spectrometer for terahertz applications (SuJeSTA). Eleven new transitions were assigned as belonging to two R- and two Q-branches of the K = 2-1 subband detected for the first time in the ground vibrational state of CO ($\nu(\text{CO}) = 0$). Improved molecular parameters of the Ne-CO complex were obtained which allowed for a sensitive test of the available intermolecular potential energy surfaces of the Ne-CO system.