P4987: BOUND STATE CALCULATIONS OF THE VAN DER WAALS NH_3–Ne COMPLEX AND FIRST MICROWAVE DETECTION OF THE MISSING (*para*)-NH_3–Ne NUCLEAR SPIN ISOMER

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The bound rovibrational energy levels were calculated for total angular momentum J = 0 – 10 for both (*ortho* and *para*) nuclear spin modifications of the complex.

Pure rotational J = 1 – 0 transition of the missing *para*NH_3–Ne (^{20}Ne / ^{22}Ne) has been measured using CP-FTMW spectroscopy.

Nuclear quadrupole structure (from ^{14}N nucleus) was resolved and analyzed, providing information about angular orientation of NH_3 within complex.