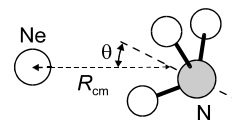


Isotopic species	$r_0(R_{\text{cm}})$ [\AA] ^{a)}
$^{22}\text{Ne} \cdot \text{NH}_3$ a ^{b)}	3.7190(5)
$^{20}\text{Ne} \cdot \text{NH}_3$ a ^{b)}	3.7227(5)
$^{22}\text{Ne} \cdot ^{15}\text{NH}_3$ a ^{b)}	3.7162(5)
$^{20}\text{Ne} \cdot ^{15}\text{NH}_3$ a ^{b)}	3.7199(5)
$^{22}\text{Ne} \cdot \text{ND}_3$ s ^{b)}	3.6890(5)
a ^{b)}	3.6890(5)
$^{20}\text{Ne} \cdot \text{ND}_3$ s ^{b)}	3.6930(5)
a ^{b)}	3.6930(5)
$^{22}\text{Ne} \cdot \text{ND}_2\text{H}$ s ^{b)}	3.6990(5)
a ^{b)}	3.6989(5)
$^{20}\text{Ne} \cdot \text{ND}_2\text{H}$ s ^{b)}	3.7029(5)
a ^{b)}	3.7028(5)
$^{22}\text{Ne} \cdot \text{NDH}_2$ s ^{b)}	3.7093(5)
a ^{b)}	3.7091(5)
$^{20}\text{Ne} \cdot \text{NDH}_2$ s ^{b)}	3.7131(5)
a ^{b)}	3.7129(5)



Ab initio calculations predict the potential minima corresponding to structures where the van der Waals bond, *i.e.*, the line from the center of mass of NH_3 to the Ne atom, lies perpendicular to the C_3 axis of NH_3 , with the Ne atom sitting between two hydrogen atoms. No quantitative information has, however, been obtained experimentally on θ : angle between R_{cm} and the C_3 axis of NH_3 (see figure). The van der Waals stretching force constant and wavenumber are 0.295 N m^{-1} and 22.8 cm^{-1} , respectively. The data obtained in the experiment of Melnik *et al.* [1] were used to construct a qualitative model describing the inversion-tunneling motion in the lowest states of this complex.

^{a)} Uncertainties were not estimated in the original paper.

^{b)} s and a denote the symmetric and antisymmetric states of inversion, respectively.

van Wijngaarden, J., Jäger, W.: J. Chem. Phys. **115** (2001) 6504.

[1] Melnik, D.G., Miller, T.A., De Lucia, F.C.: J. Mol. Spectrosc. **214** (2002) 202.