

34
MW

ArN₂NeO
Argon – dinitrogen monoxide – neon (1/1/1)
(weakly bound complex)

C₁
(large-amplitude motion)
Ar · N₂O · Ne

r_0	Å ^{a)}	θ_0	deg ^{a)}
Ar...N(c)	3.459(5)	Ar...N(c)=O	80.0(5)
Ne...N(c)	3.218(5)	Ne...N(c)=O	77.8(5)
Ar...Ne ^{b)}	3.665(5)	φ ^{c)}	67.9(5)

r_z	Å ^{a)}	θ_z	deg ^{a)}
Ar...N(c)	3.466(5)	Ar...N(c)=O	82.6(5)
Ne...N(c)	3.225(5)	Ne...N(c)=O	80.5(5)
Ar...Ne ^{b)}	3.680(5)	φ ^{c)}	67.4(5)

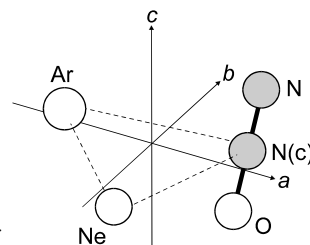
Based on the quartic centrifugal distortion constants, a harmonic force field analysis was performed to estimate the frequencies of the van der Waals vibrational modes. Differences of structural parameters of the trimer as compared with those of the respective dimer units are indicative of the presence of significant three-body non-additive contributions to the interaction energy.

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

The structural parameters were calculated by fixing
N=N(c) = 1.1278 Å, N(c)=O = 1.1923 Å and
N(c)...cm(N₂O) = 0.0745 Å.

^{b)} Dependent parameter.

^{c)} Dihedral angle between the Ne...N₂O and Ar...N₂O planes.



Ngarĩ, M.S., Xu, Y., Jäger, W.: Mol. Phys. **99** (2001) 13.