

248
MW

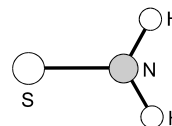
H₂NS
Nitrogen dihydride monosulfide
C_{2v}
H₂NS

r_z	Å ^{a)}
N-H	1.000(5)
N-S	1.6398(13)

θ_z	deg ^{a)}
H-N-H	118.9(7)

r_e	Å ^{a)}
N-H	1.005(5)
N-S	1.6343(13)

θ_e	deg ^{a)}
H-N-H	118.9(7)



The H₂NS radical has the X²B₁ ground electronic state. By using the observed centrifugal distortion constants and inertial defects, the harmonic force field is derived, and the ν_4 out-of-plane vibrational frequency is calculated to be 325 cm⁻¹, much lower than the corresponding mode of H₂CS, indicating a floppy nature of the out-of-plane mode.

^{a)} Three times the estimated standard errors.

Habara, H., Yamamoto, S., Saito, S.: J. Chem. Phys. **109** (1998) 2700.