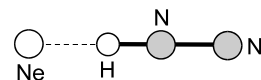


<b>224</b> IR	<b>HN<sub>2</sub>Ne<sup>+</sup></b>	<b>Diazenylium – neon (1/1)</b> (weakly bound complex)	<b>C<sub>∞v</sub></b> (effective symmetry class) (large-amplitude motion) Ne · H–N=N <sup>+</sup>
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Isotopic species	$r_0(R_{\text{cm}})$ [Å]	$r_0(\text{Ne}\dots\text{H})$ [Å]
<sup>20</sup> Ne · H <sup>14</sup> N <sub>2</sub> <sup>+</sup>	3.281(1)	1.756(1)
<sup>22</sup> Ne · H <sup>14</sup> N <sub>2</sub> <sup>+</sup>	3.281(1)	1.756(1)
<sup>20</sup> Ne · H <sup>15</sup> N <sub>2</sub> <sup>+</sup>	3.371(2)	1.758(2)



The structure of the linear H-bound complex was determined from the rovibrational IR predissociation spectrum of the  $\nu_1$  stretching fundamental band. The geometry of the diazenylium was assumed to be unchanged upon complexation.

Nizkorodov, S.A., Meuwly, M., Maier, J.P., Dopfer, O., Bieske, E.J.: J. Chem. Phys. **108** (1998) 8964.