

1215  
MW

$\text{C}_3\text{H}_5\text{N}$

**Ethylene – hydrogen cyanide (1/1)**  
(weakly bound complex)

$\text{C}_{2v}$   
(large-amplitude motion)  
(effective symmetry class)  
 $\text{H}_2\text{C}=\text{CH}_2 \cdot \text{HCN}$

$r_0$	$\text{\AA}$
$R^{\text{a})}$	3.711(5)

This complex is T-shaped with the H atom in the HCN molecule adjacent to the C=C bond of ethylene. The HCN molecule lies on a line perpendicular to the plane of ethylene and passing through the ethylene center of mass.

<sup>a)</sup> Distance between the cyanide carbon atom and the center of mass at the ethylene molecule.

Kukolich, S.G., Read, W.G., Aldrich, P.D.: J. Chem. Phys. **78** (1983) 3552.