

ADDITIONS AND CORRECTIONS

2003, Volume 107A

F. Pepi, A. Ricci, M. Rosi: Gas-Phase Chemistry of NH_xCl_y^+ Ions. 3. Structure, Stability, and Reactivity of Protonated Trichloramine

Page 2088. A transcription error resulted in erroneous N–Cl bond angle of NCl_3 reported in Figure 3 and Table 3. The corrected value is 108.1° instead of 118.1° .

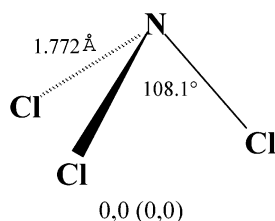


Figure 3. Optimized geometries of the investigated species in their ground states. (Bond lengths in angstroms, angles in degrees). Total energies (kJ/mol), with inclusion of zero point energy, computed at B3LYP (CCSD(T)) level are shown. The energies are relative to the total energy, corrected by the zero point energy, of NCl_3 : -1435.330851 hartree at B3LYP level and -1433.713664 hartree at CCSD(T) level.

TABLE 3: Optimized Geometries and Energies of NCl_3 , HNCl_3^+ (I), HCINCl_2^+ (II), and $\text{HN}(\text{Cl})\text{Cl}_2^+$ (III) in Their Singlet Ground States

	NCl_3 $^1\text{A}_1$	I $^1\text{A}_1$	II $^1\text{A}'$	III $^1\text{A}'$
$r(\text{NCl})$	1.772	1.753	1.634 2.715	1.635 1.688
$r(\text{NH})$		1.026		1.023
$r(\text{ClH})$			1.289	
$r(\text{ClCl})$				2.079
$\angle(\text{CINH})$		106.3		113.0
$\angle(\text{ClNCl})$	108.1	112.5	115.2	120.1
$\angle(\text{NClH})$			92.1	
$\angle(\text{NClCl})$				117.3
E_{B3LYP}	-1435.336894	-1435.620355	$-1.435.602255$	-1435.599762
ZPE^b	0.006043	0.019905	0.013034	0.018368
$E_{\text{CCSD(T)}}$	-1433.719707	-1434.007980	-1433.977759	-1433.974459

^a Bonds lengths in angstroms, angles in degrees, total energies in hartree. ^b Zero point energy.

10.1021/jp030605s

Published on Web 07/12/2003