



Packing diagrams of orthorhombic (I, *left*) and monoclinic (II, *right*) crystals of [C<sub>4</sub>mim]Cl

Closest contacts from cation hydrogen atoms to the anion, shown in Fig. 1. Close contacts less than or equal to the sum of the Van der Waals radii are given with the corresponding donor-hydrogen-acceptor bond angle.

Appropriate van der Waals contact radii are: H-Cl: 2.95, H-Br: 3.05, and H-C: 2.90.

	<b>I</b>		<b>I-Br</b>		<b>II</b>	
	distance	angle	distance	angle	distance	angle
	(Å)	(deg)	(Å)	(deg)	(Å)	(deg)
<i>Ring</i>						
C2-H2A...X	2.57(2)	162.3	2.45(6)	168.7	2.549(18)	158.1
C4-H4A...X	3.08(3)		3.10(7)		2.918(16)	116.4
C4-H4A...X	3.04(3)		3.08(8)			
C5-H5A...X	3.00(4)		3.06(7)		2.956(19)	
C5-H5A...X					3.124(19)	
<i>N-CH<sub>3</sub></i>						
C6-H6A...X					3.00(2)	
C6-H6B...X	2.90(4)	134.3	2.91(10)	120.6		
C6-H6C...X	2.93(5)	147.9			2.90(2)	165.4
<i>Alkyl</i>						
C7-H7A...X	2.85(3)	160.2	2.86(8)	150.4	2.731(18)	147.7
C7-H7B...X	3.06(5)		3.03(7)	159.3	2.720(17)	165.0
C9-H9A...X	3.13(3)					
C10-H10A...X					2.93(3)	173.4
C10-H10C...X	3.09(5)		3.25(13)			