

Table 1 Hydrogen bond data for achiral salts

Compound	Donor (D)	Acceptor (A)	D...A/Å	D-H/Å	H...A/Å	D-H...A/°
(H⁻)(PPA⁺)•ACE	N1G	O3 ^a	2.876(5)	0.954	1.929	171
	N1G	O24A	3.293(4)	0.897	2.634	131
	N1G	O24B ^b	2.728(6)	0.911	2.728	171
	N1G	O24B	2.762(3)	0.897	1.869	174
	O3	O24A ^c	2.627(2)	0.840	1.797	170
(2H⁻)(2PPA⁺)•4.3H₂O	N1G	O12A	2.834(3)	0.81(4)	2.09(4)	153(3)
	N1G	O49 ^d	2.837(3)	0.87(4)	1.98(4)	172(3)
	O12B	O43	2.732(3)	0.85(4)	1.88(4)	174(4)
	O12B	O43A	2.67(1)	0.85(4)	1.94(4)	148(4)
	O49	O24C ^e	2.753(3)	0.81(2)	1.95(2)	172(4)
	O49	O12B	2.955(3)	0.82(2)	2.20(3)	155(5)
	O13	O24D ^f	2.667(3)	0.87(5)	1.82(5)	163(5)
	N1G	O24B ^d	2.743(3)	0.897(2)	1.846(4)	178(3)
	O57	O3A	2.815(3)	0.91(2)	1.91(2)	177(6)
	O57	O13 ^g	2.828(4)	0.91(2)	1.97(3)	157(6)
	O3A	O24D ^h	2.698(3)	0.90(5)	1.81(5)	166(4)
	N1GA	O3B	2.84(2)	0.98(6)	1.86(5)	178(4)
	N1GA	O57	2.81(2)	0.89(5)	1.92(5)	171(5)
	N1GB	O57	2.77(3)	0.87(6)	1.92(5)	164(5)
	N1GB	O3B	2.76(4)	0.91(5)	1.86(5)	172(5)
	O13	O24B	2.774(3)	0.91(6)	1.90(6)	161(5)
	O12A	O13 ^d	2.732(3)	0.95(1)	1.79(1)	171(3)
	N1GA	O43	2.87(2)	0.99(8)	2.10(7)	133(5)
	N1GA	O24B ^d	3.15(2)	0.99(8)	2.39(7)	134(5)
	O3B	O24A ^g	2.692(3)	0.94(2)	1.76(2)	170(4)
	O43	O24C ^e	2.661(3)	0.86(5)	1.88(5)	151(4)
	O43	O24A ^d	2.693(4)	0.84(6)	1.87(6)	168(5)
	O43	O24B ^d	3.215(3)	0.84(6)	2.64(6)	127(4)
O5	O3A	2.96(1)	0.91(2)	2.05(4)	171(16)	
(H⁻)(DBA⁺)	N1G	O24A	2.669(2)	0.877	1.846	156
	N1G	O24B ⁱ	2.708(2)	0.926	1.785	174
	O3	O24A ^j	2.850(2)	0.969(2)	2.025(2)	142(1)

^a: x, y, z-1

^b: 2-x, y+1/2, -z

^c: 2-x, y-1/2, 1-z

^d: x, y+1, z

^e: x, y-1, z

^f: x, y-2, z

^g: x-1, y+1, z

^h: x-1, y-1, z

ⁱ: 1-x, y-1/2, 2-z

^j: -x, y+1/2, 1-z

Table 2 Hydrogen bond data for chiral salts

Compound	Donor (D)	Acceptor (A)	D...A/Å	D-H/Å	H...A/Å	D-H...A/°
(H⁻)(R-BA⁺)	N1G	O24A	2.752(3)	0.910	1.845	174
	N1G	O24A ^k	2.785(3)	0.910	1.882	172
	N1G	O24B ^k	3.261(3)	0.910	2.579	132
	N1G	O3 ^l	2.890(3)	0.910	1.994	168
	O3	O24B ^l	2.636(2)	0.820	1.839	164
(H⁻)(S-BA⁺)	N1G	O24A ^m	2.730(2)	0.918	1.825	168
	N1G	O24A ⁿ	3.289(2)	0.912	2.623	130
	N1G	O24B ⁿ	2.785(2)	0.912	1.882	170
	N1G	O3	2.821(2)	0.866	1.973	166
	O3	O24B ^o	2.707(2)	0.847	1.870	170
(H⁻)(R-MBA⁺)	N1G	O24A	2.990(4)	0.910	2.184	147
	N1G	O24A ^p	2.738(4)	0.910	1.872	158
	N1G	O24B	2.999(4)	0.910	2.159	153
	N1G	O3 ^q	2.878(3)	0.910	1.975	171
	O3	O24B ^r	2.678(3)	0.840	1.843	173
(H⁻)(S-MBA⁺)	N1G	O24A ^o	2.724(3)	0.990	1.822	150
	N1G	O24A	3.303(3)	0.990	2.549	133
	N1G	O24B	2.763(3)	0.990	1.793	165
	N1G	O3 ⁿ	2.831(3)	0.837	2.058	153
	O3	O24B ^s	2.707(3)	0.979	1.800	153

^k: -x+1/2, y+1/2, -z-1

^l: -x+1/2, y+1/2, -z

^m: -x, y-1/2, 1-z

ⁿ: x, y, 1+z

^o: -x, 1/2+y, 1-z

^p: -x+1, y-1/2, -z

^q: x-1, y, z-1

^r: -x+2, y+1/2, -z+1

^s: -x, y-1/2, -z