Supporting Information for:

Into the second dimension with ferrocene *bis*-amidinium salts

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Figure S1 Definition of *E*- and *Z*- with respect distribution of substituents about a tri-substituted amidinium cation (for **1** and **2**, R = ferrocenyl, R' = Cy)

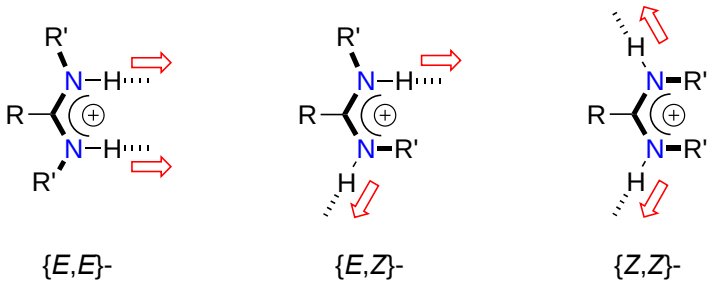

Figure S2 Definition of α (dihedral angle between the amidinium and C_5-ring, with +ve and –ve values defined relative to the *E*- and *Z*-nitrogen groups)

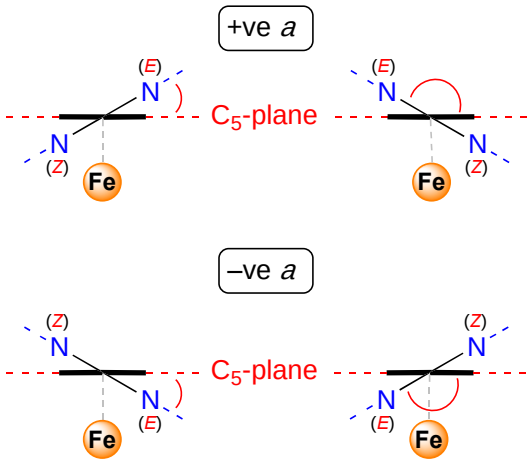

Figure S3 Definition of *l* (the C_5–CN_2 bond length)

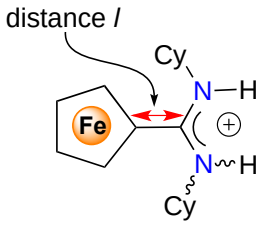

Figure S4 Definition of ϕ_O and ϕ_N (the bond angle at oxygen and nitrogen subtending the amidinium:carboxylate bridge

Figure S5 Definition of d_O and d_N (the distance of the oxygen and nitrogen atoms from the C–CN_2 and C–CO_2 planes, respectively)

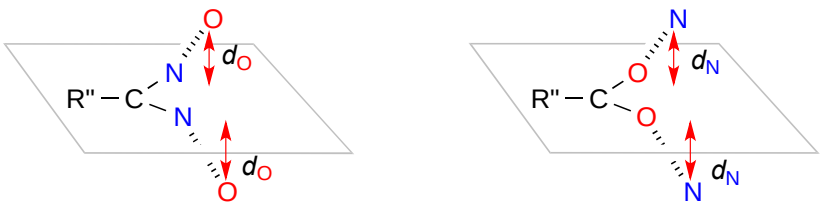

Figure S6 Definition ss-S_P and ss-R_P chirality, prioritizing the (*E*)-nitrogen group

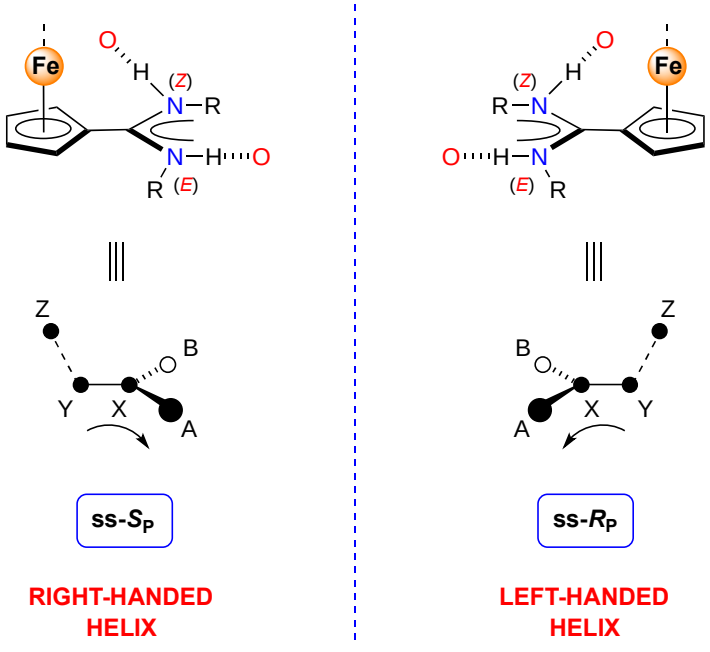

Table S1 Summary of geometric data for $[\mathbf{1}]_\infty$ and $[\mathbf{2}]_\infty$

	α, deg	l, Å		ϕ_O, deg	d_O, Å		ϕ_N, deg	d_N, Å
1	+26.3(2)	1.480(3)	O1	116.41(15)	–0.343(5)	N1	130.34(16)	–0.293(5)
	+153.7(2)		O2	140.26(18)	–0.367(5)	N2	129.69(15)	2.590(4)
2	+39.8(1)	1.477(2)	O1	~135[a]	~0.1[a]	N1	~101[a]	~1.9[a]
	+39.8(1)		O2	~110[a]	-	N2	~133[a]	~1.0[a]
			O3	~109[a]	-			
			O4	~147[a]	~0.1[a]			

a disorder in the $[^tBuCO_2\cdots H\cdots O_2C^tBu]^-$ anion precludes accurate determination of these distances and angle. The values provided are meant simply as an indication and should not be used for meaningful comparisons.

Figure S7 Representation of the disorder in the $[^{t}BuCO_2\cdots H\cdots O_2C^{t}Bu]^-$ anion

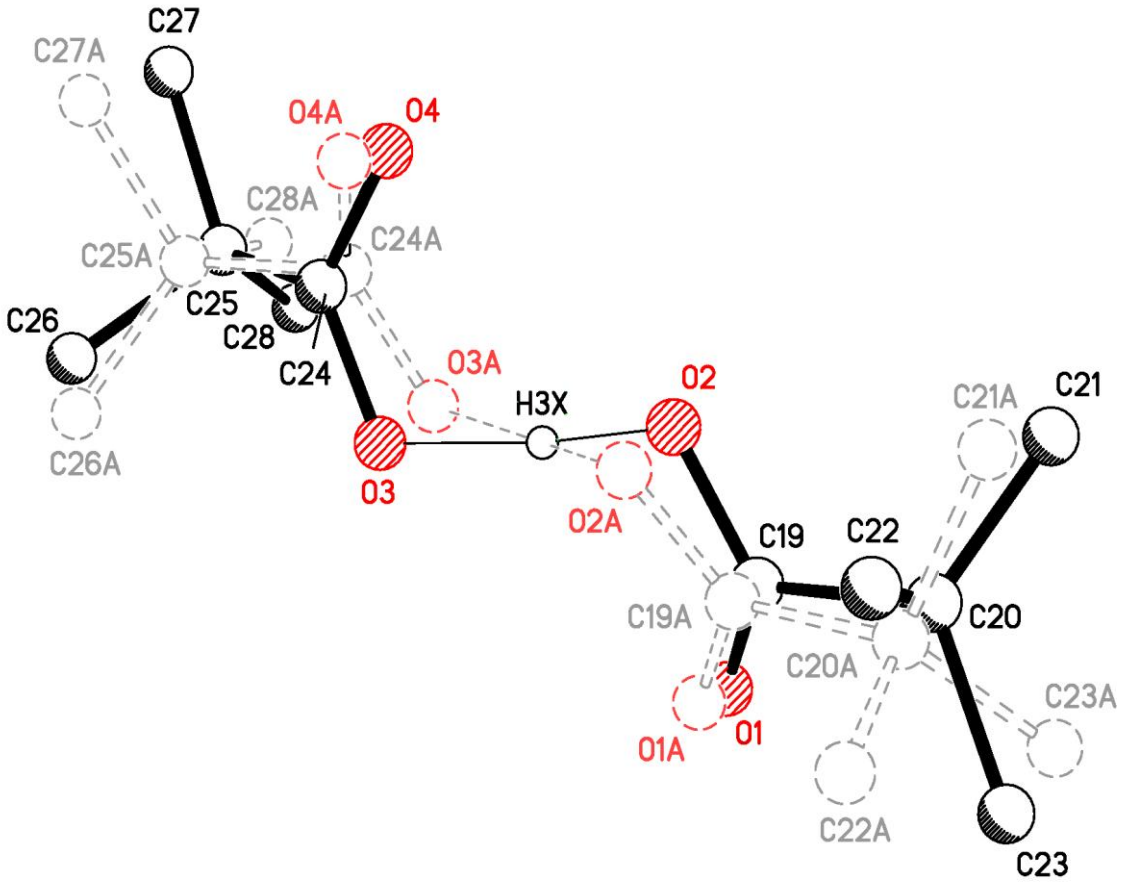

Figure S8 Contour map showing residual electron density corresponding to hydrogen H3x between the two pivalate anions.