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Supplementary Material

Steric Trapping of the High Spin State in Fe(III) Quinolylsalicylaldimine Complexes

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Supporting Figures

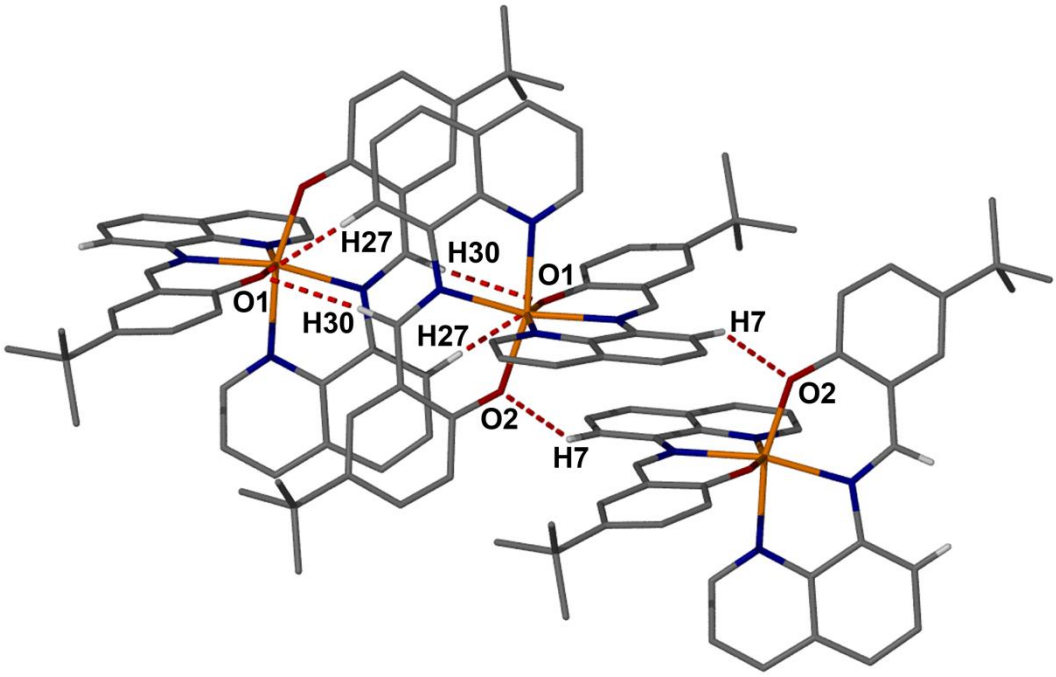

Figure S1 The supplementary C-H···O interactions between the aromatic C-H groups and the phenoxide O atoms in [Fe(qsal-5-*t*Bu)$_2$]ClO$_4$·MeOH at 100 K.

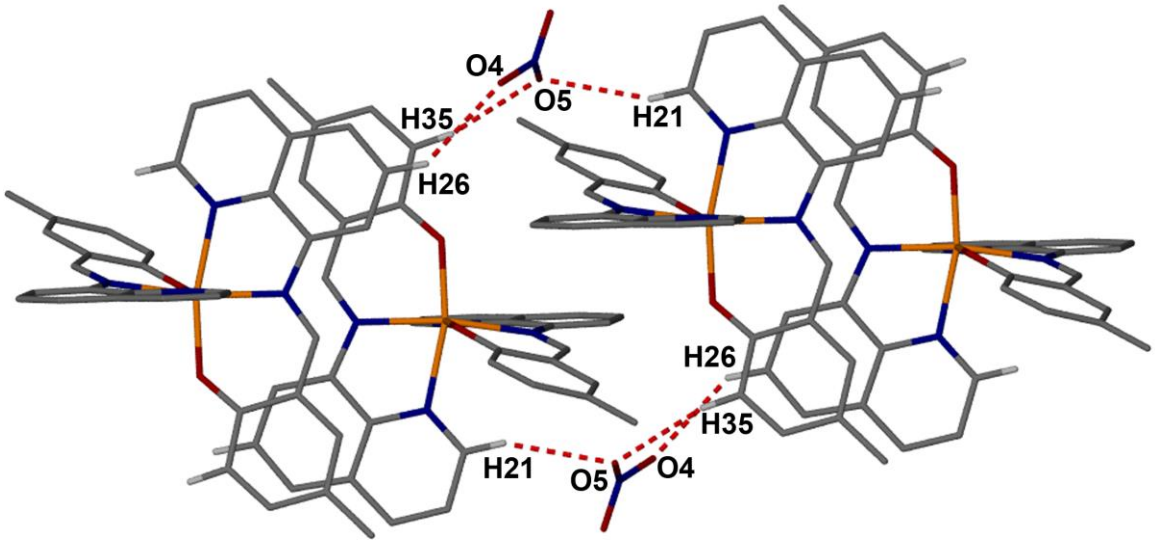

Figure S2 View of the C-H···O interactions which link the nitrate anions to the 1D chains in **3**.

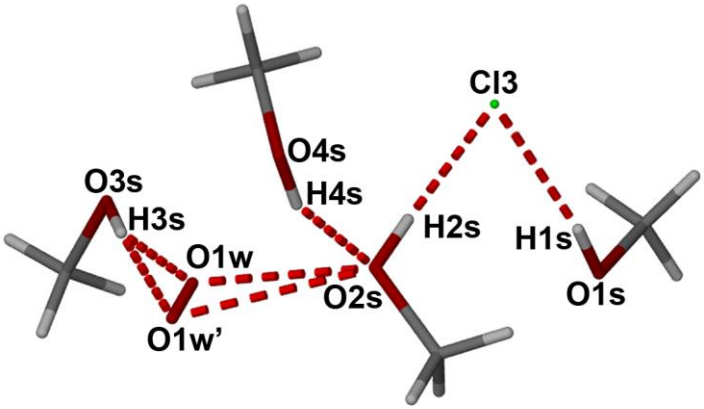

Figure S3 View of the chloride, methanol, water hydrogen bonded chain in **1**.

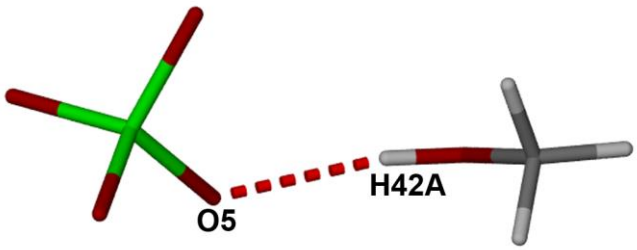

Figure S4 View of the ClO_4^--MeOH O-H···O hydrogen bond in **2**.

Supporting Table

Table S1 Hydrogen bond geometries for [Fe(qsal-5-*t*Bu)$_2$]Y **1**, **2** and **3** (Å, ^{o}).

	D*-H···*A	***D*-H**	**H···*A***	***D*···*A***	***D*-H···*A***
1	O1S-H1S···Cl3	0.84	2.25	3.089(4)	174
	O2S-H2S···Cl3	0.84	2.21	3.046(4)	173
	O3S-H3S···O1W'	0.84	1.87	2.876(7)	175
	O4S-H4S···O2S	0.84	1.99	2.770(5)	154
	C2-H2···O1S	0.95	2.45	3.277(6)	145
	C3-H3···O1S	0.95	2.46	3.338(6)	154
	C7-H7···O2^{i}	0.95	2.44	3.325(5)	155
	C10-H10···O2^{i}	0.95	2.70	2.528(5)	146
	C21-H21···O4S^{ii}	0.95	2.54	3.413(6)	152
	C27-H27···O1^{iii}	0.95	2.51	3.438(5)	167
	C34-H34···O1W'^{iv}	0.95	2.57	3.419(6)	149
2	O7-H42(A)···O5	0.82	1.92	2.731(5)	168
	C1-H1···O7^{v}	0.93	2.48	3.304(6)	148
	C6-H6···O5	0.93	2.47	3.240(5)	140
	C7-H7···O2^{vi}	0.93	2.51	3.310(4)	144
	C21-H21···N2	0.93	2.58	3.136(4)	119
	C21-H21···O4^{vii}	0.93	2.53	3.361(6)	149
	C27-H27···O1^{viii}	0.93	2.51	3.375(4)	156
3	C7-H7···O2^{ix}	0.95	2.54	3.469(5)	16
	C10-H10···O5^{x}	0.95	2.59	2.973(5)	104
	C27-H27···O1^{xi}	0.95	2.43	3.327(4)	158
	C35-H35···O5^{xi}	0.95	2.56	3.486(6)	165

Symmetry codes: ^{i}2-x, -y, 1-z; ^{ii}2-x, 1-y, 1-z; ^{iii}1-x, 1-y, 1-z, ^{iv} 1+x, y, z, ^{v} 1-x, -y, -z, ^{vi} 2-x, -y, -z, ^{vii} 1+x, y, z, ^{viii} 1-x, -y, 1-z, ^{ix}1-x, 2-y, 1-z; ^{x}1-x, 1-y, 1-z; ^{xi}x, 1+y, z,
D = Donor, A = Acceptor