

ESI for

Hydrothermal synthesis of Group 13 metal trifluoride complexes with neutral N-donor ligands

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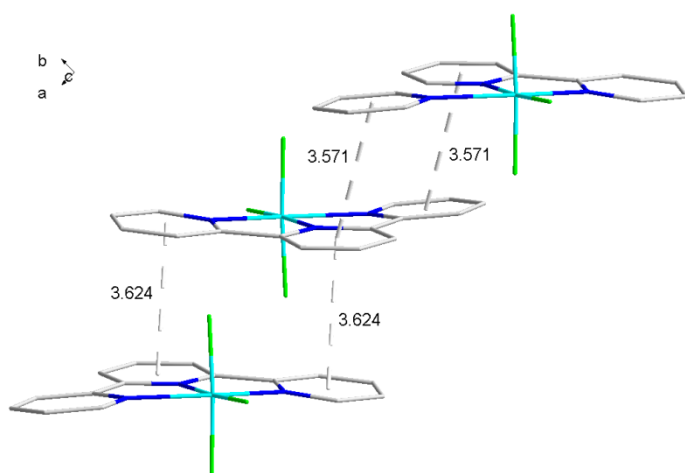


Figure S1. View of $[\text{GaF}_3(\text{terpy})] \cdot 3\text{H}_2\text{O}$ showing the π -stacking (with water molecules omitted).

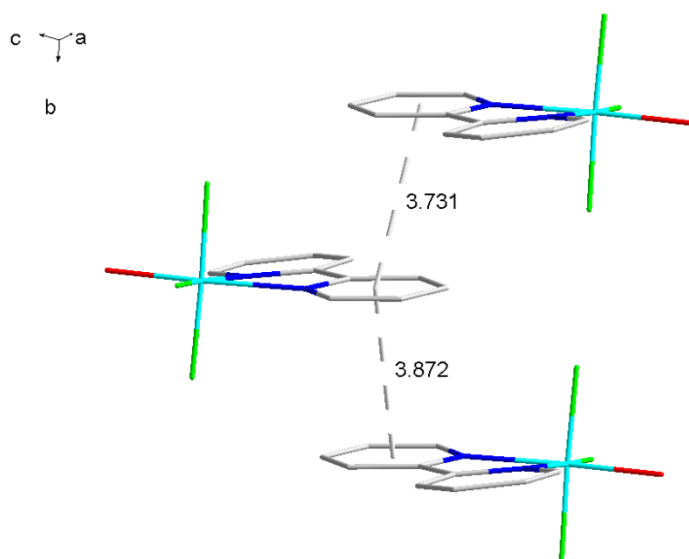


Figure S2. View showing the π -stacking (lattice H_2O omitted for clarity) present in the structure of $[\text{GaF}_3(\text{bipy})(\text{OH}_2)] \cdot 2\text{H}_2\text{O}$

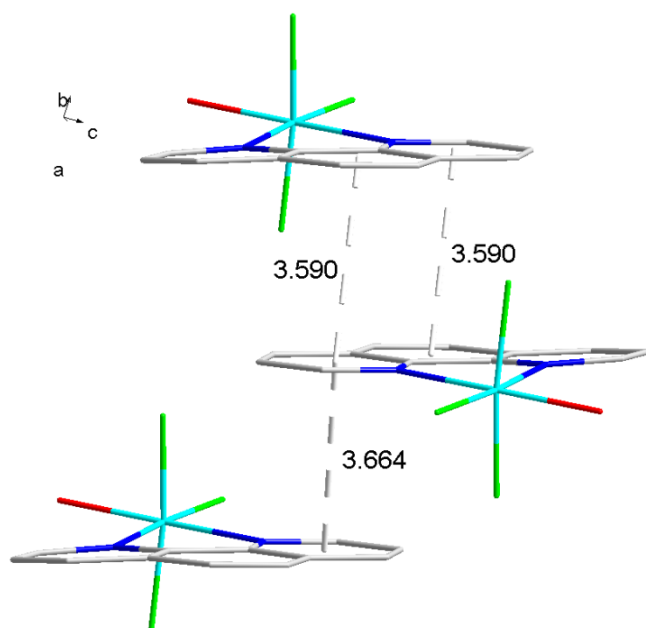


Figure S3. View showing the π -stacking present in the structure of $[\text{GaF}_3(\text{phen})(\text{OH}_2)]$.

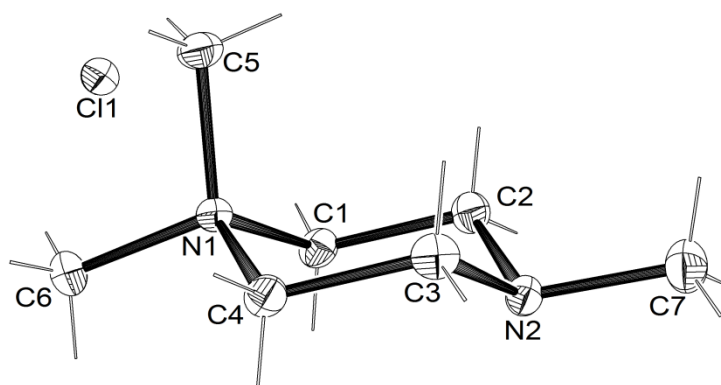


Figure S4 View of the structure of $[\text{CMe}_2\text{N}(\text{CH}_2)_2\text{NMe}(\text{CH}_2)_2]\text{Cl}$.

Table S1 X-Ray crystallographic data for [CMe₂N(CH₂)₂NMe(CH₂)₂]Cl^a

Compound	[CMe ₂ N(CH ₂) ₂ NMe(CH ₂) ₂]Cl
Formula	C ₇ H ₁₇ ClN ₂
<i>M</i>	164.8
Crystal system	orthorhombic
Space group (no.)	P2 ₁ 2 ₁ 2 ₁
<i>a</i> /Å	8.3293(6)
<i>b</i> /Å	10.3564(7)
<i>c</i> /Å	10.3564(7)
α /°	90
β /°	90
γ /°	90
<i>U</i> /Å ³	893.36(11)
<i>Z</i>	4
μ (Mo-K α) /mm ⁻¹	0.362
<i>F</i> (000)	360.0
Total number reflections	8132
<i>R</i> _{int}	0.064
Unique reflections	2024
No. of parameters, restraints	94, 0
<i>R</i> ₁ , <i>wR</i> ₂ [<i>I</i> > 2σ(<i>I</i>)] ^b	0.036, 0.075
<i>R</i> ₁ , <i>wR</i> ₂ (all data)	0.045, 0.079

^a Common items: T = 100 K; wavelength (Mo-K α) = 0.71073 Å; θ (max) = 27.5°; ^b $R_1 = \Sigma||F_o| - |F_c|| / \Sigma|F_o|$; $wR_2 = [\Sigma w(F_o^2 - F_c^2)^2 / \Sigma wF_o^2]^{1/2}$.