

Electronic supplementary information

**Supramolecular assemblies of germanium(II) halides with O-, S- and Se-donor
macrocycles – the effects of donor atom type upon structure**

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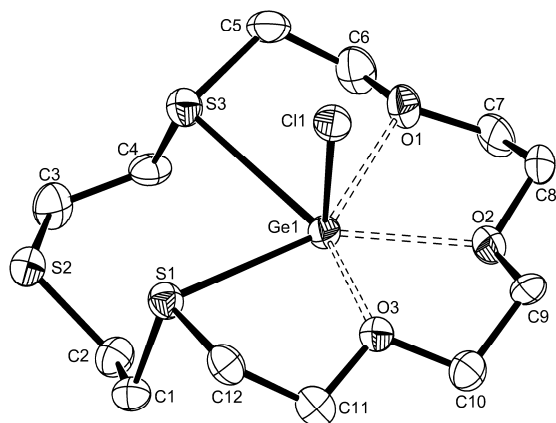


Figure S1. View of the structure of the cation in $[\text{GeCl}([18]\text{aneS}_3\text{O}_3)]^+$ with the numbering scheme adopted. Ellipsoids are drawn at the 50% probability level.

Selected bond lengths (Å): Ge1–Cl1 = 2.278(3),
Ge1–O2 = 2.390(7), Ge1–O3 = 2.416(7), Ge1–O1 =
2.567(8), Ge1–S1 = 2.828(3), Ge1–S3 = 3.007(3).

Table S1: Crystal structure data for [GeCl([18]aneS₃O₃)]- [CF₃SO₃]^[a]

Compound	[GeCl([18]aneS ₃ O ₃)] [CF ₃ SO ₃]
Formula	C ₁₃ H ₂₄ ClF ₃ GeO ₆ S ₄
<i>M</i>	569.60
Crystal system	monoclinic
Space group	P2 ₁ /c (no. 14)
<i>a</i> /Å	14.504(4)
<i>b</i> /Å	11.482(4)
<i>c</i> /Å	14.671(5)
α /°	90
β /°	115.585(15)
γ /°	90
<i>U</i> /Å ³	2203.7(12)
<i>Z</i>	4
μ (Mo-K α) /mm ⁻¹	1.942
Total no. reflections	22647
Unique reflections	4312
<i>R</i> _{int}	0.215
No. of parameters, restraints	253, 0
<i>R</i> ₁ [<i>I</i> _o > 2 σ (<i>I</i> _o)]	0.109
<i>R</i> ₁ (all data)	0.211
<i>wR</i> ₂ [<i>I</i> _o > 2 σ (<i>I</i> _o)]	0.163
<i>wR</i> ₂ (all data)	0.199

[a] Common items: temperature = 120 K; wavelength (Mo-K α) = 0.71073 Å; θ (max) = 27.5°; $R_1 = \sum ||F_o| - |F_c|| / \sum |F_o|$; $wR_2 = [\sum w(F_o^2 - F_c^2)^2 / \sum wF_o^4]^{1/2}$.