

Supplementary Information

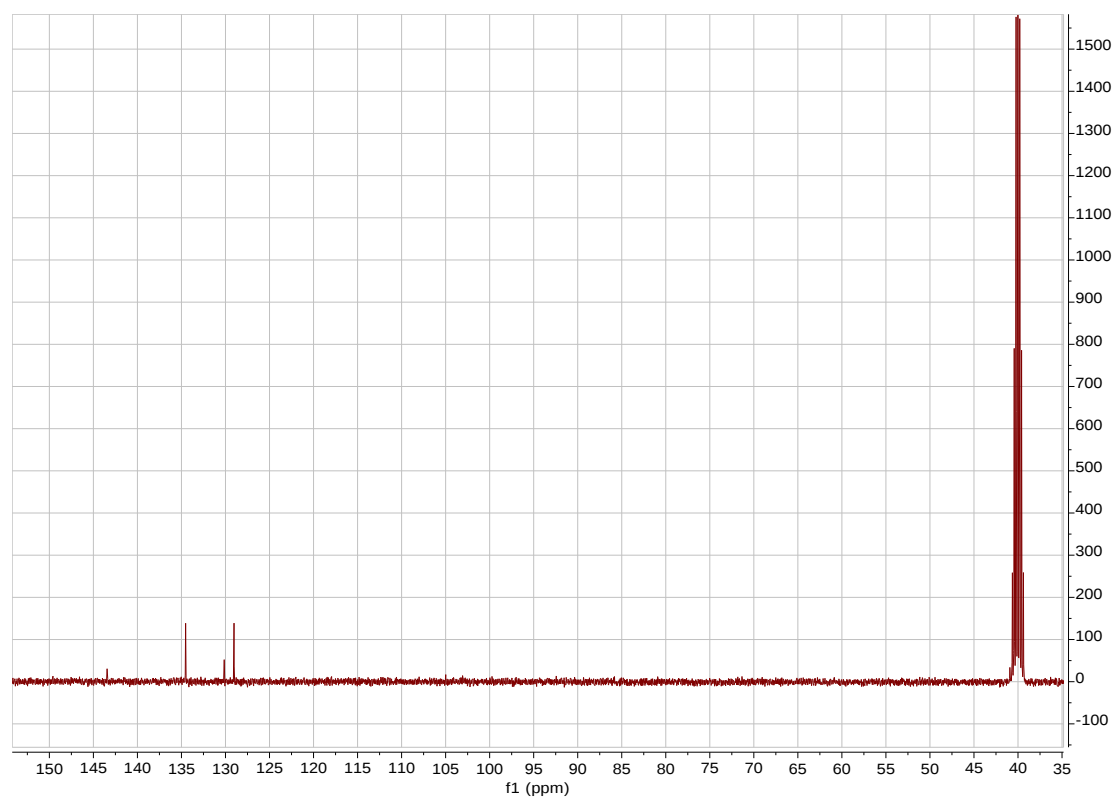
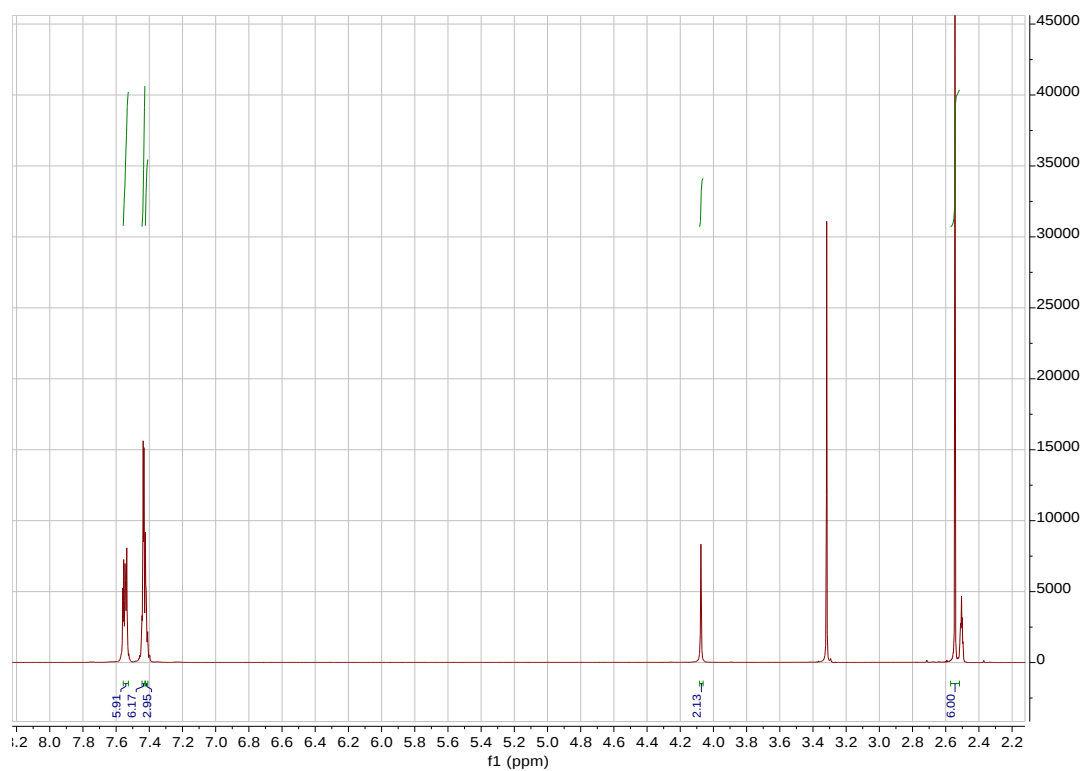
Comparative Stability, Toxicity and Anti-Leishmanial Activity of Triphenyl Antimony(V) and Bismuth(V) α -Hydroxy Carboxylato Complexes

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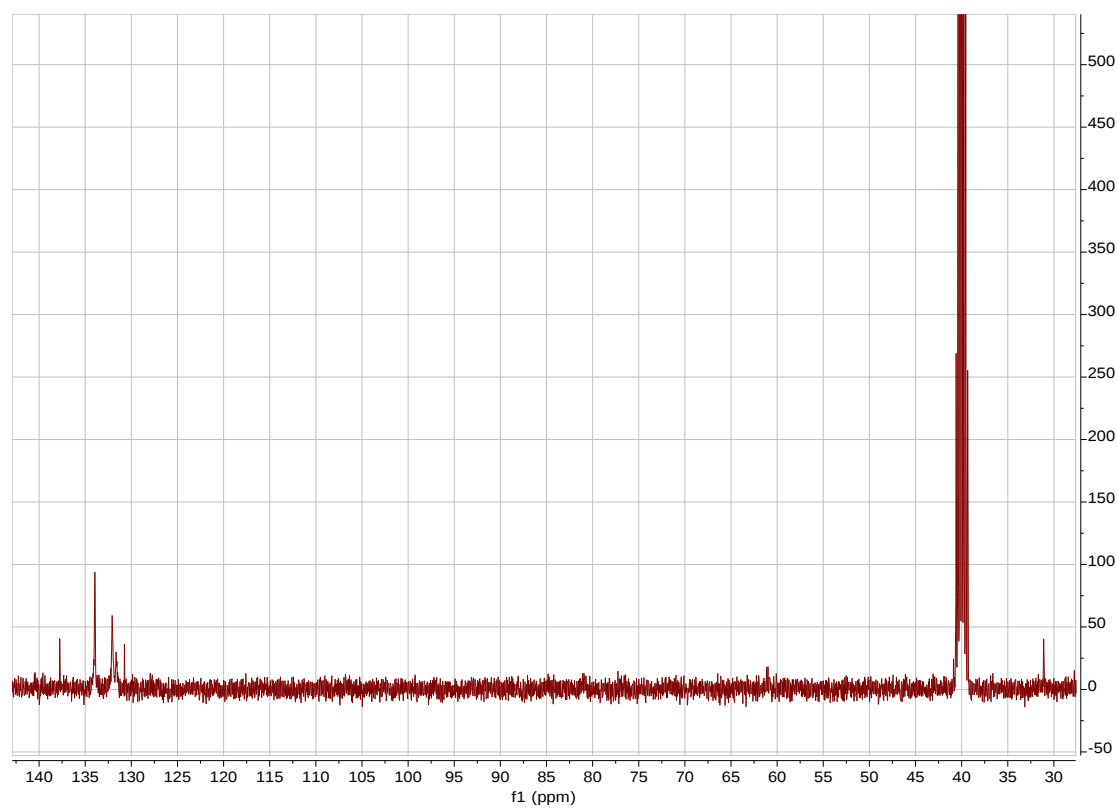
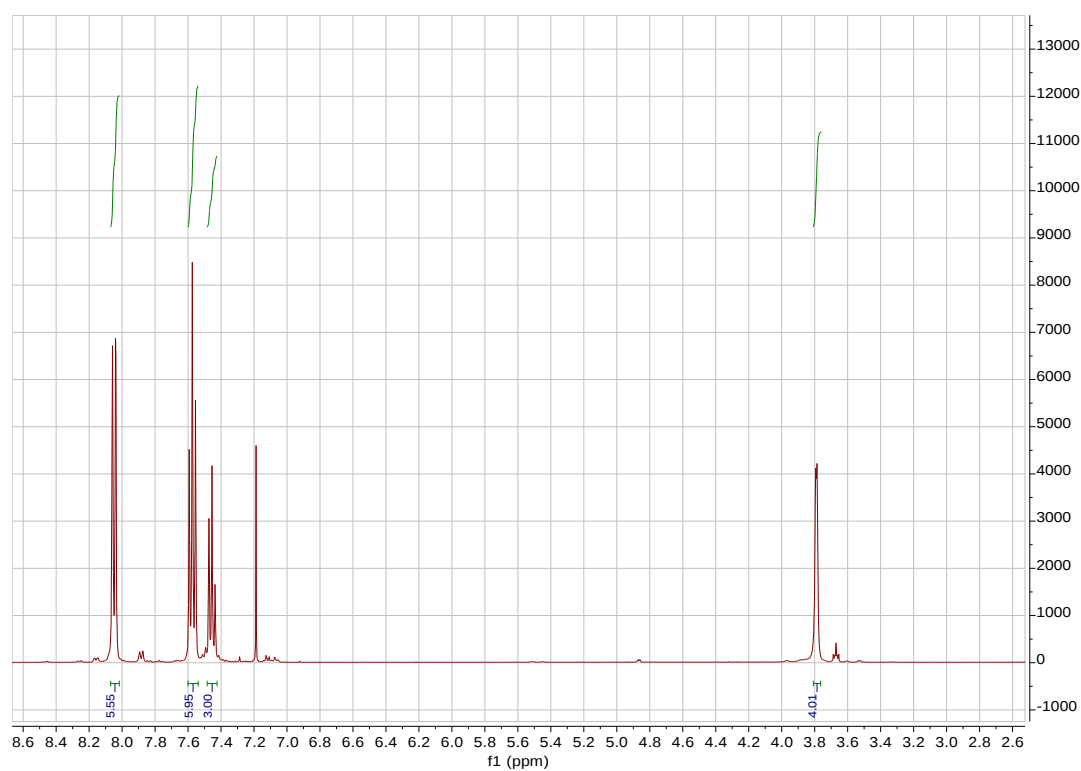
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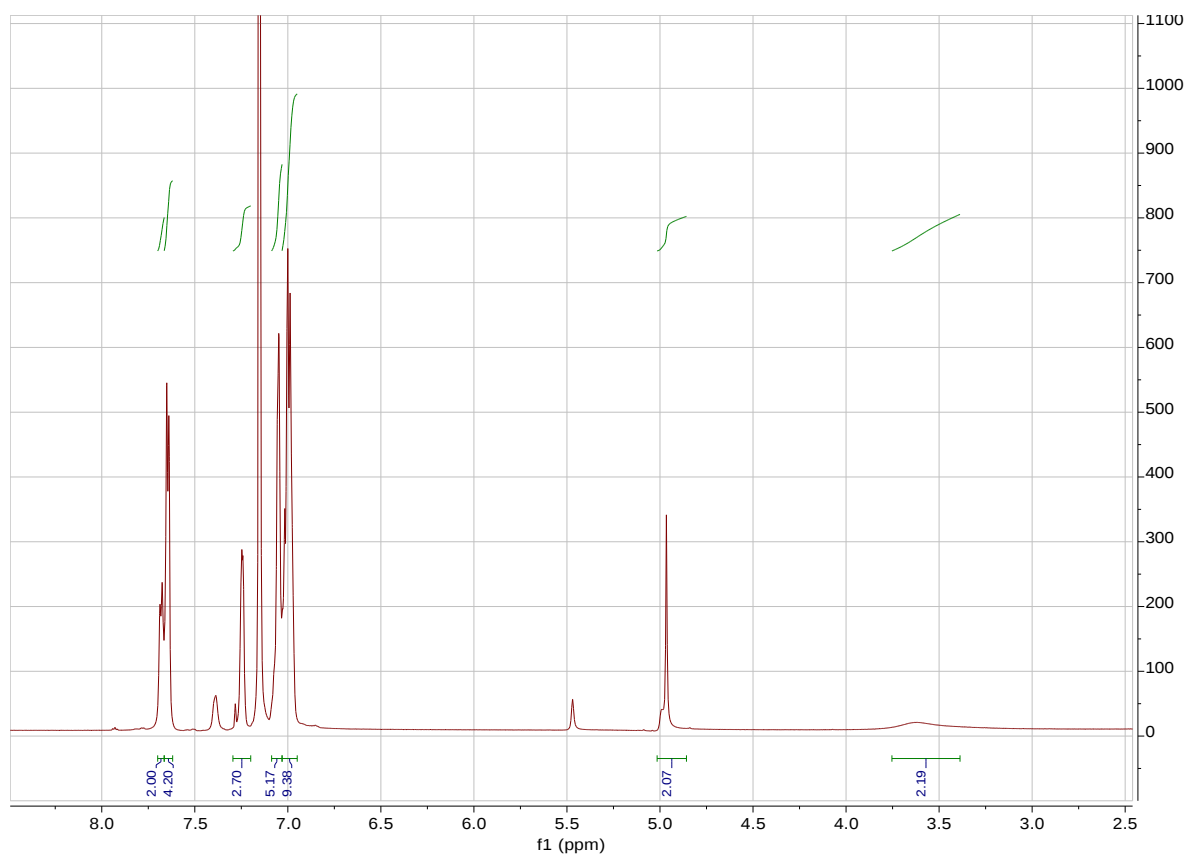
1. [SbPh₃Gly].DMSO, **1S**



2. $[\text{BiPh}_3(\text{GlyH})_2]$, **1B**



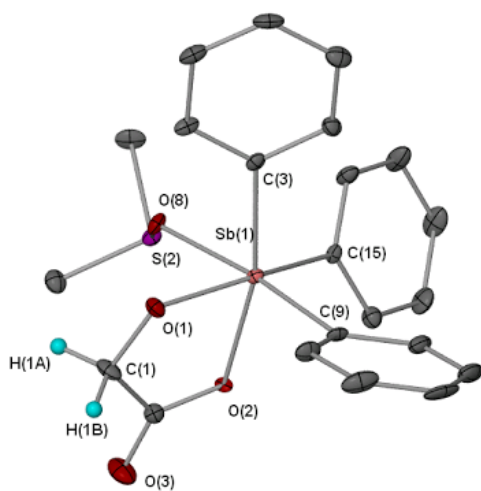
3. ^1H NMR and ^{13}C NMR [$\text{SbPh}_3(\text{R-ManH})_2$], **2Sr**



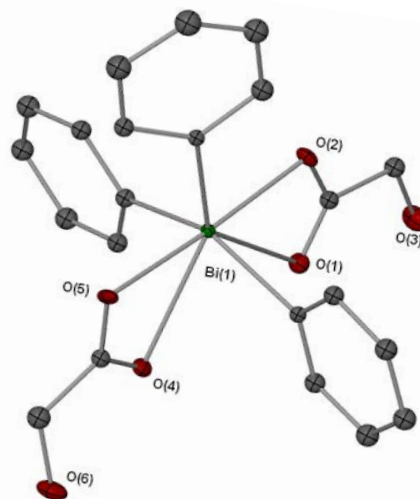
2. X-ray crystallography

X-ray structures of **1S** and **1B**, due to twinning pertinent bond angles and distances could not be discussed, however structural connectivity matching that of the NMR and elemental analysis was obtained.

1S



1B

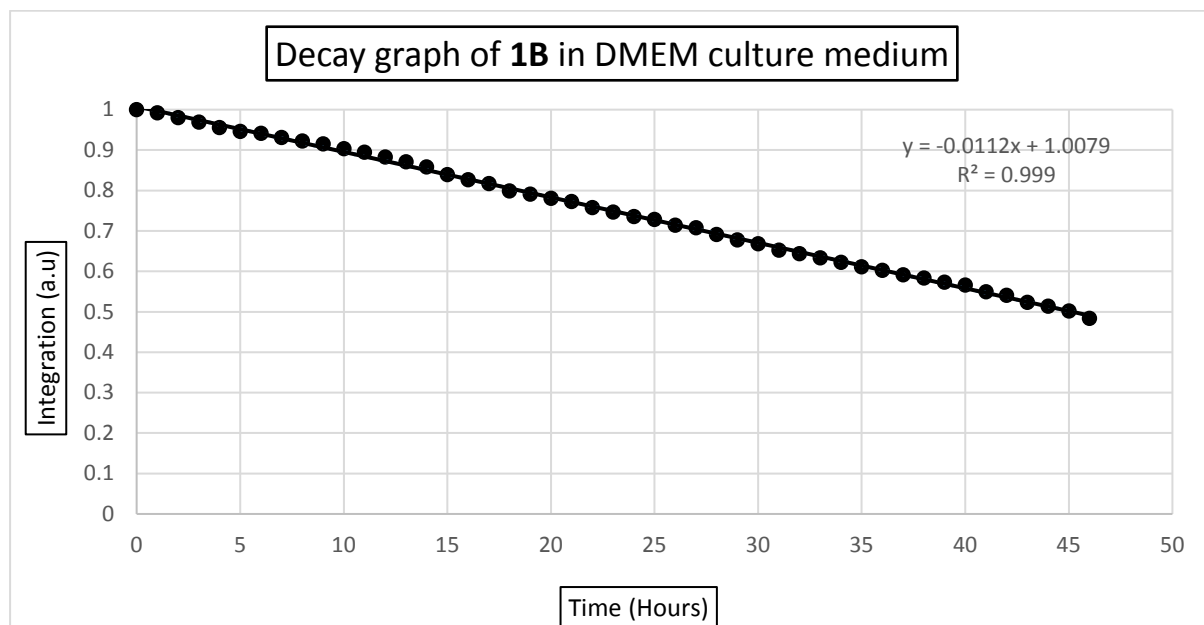


Summary of crystallographic data for complexes **2Sr/s** and **2Br/s**

		2Sr	2Ss	2Br	2Bs
Chemical formula		C ₃₄ H ₂₉ O ₆ Sb	C ₃₄ H ₂₉ O ₆ Sb	C ₃₄ H ₂₉ BiO ₆	C ₃₄ H ₂₉ BiO ₆
<i>M_r</i>		655.32	655.32	742.55	742.55
Crystal system, space group		Orthorhombic, <i>P</i> 2 ₁ 2 ₁ 2	Orthorhombic, <i>P</i> 2 ₁ 2 ₁ 2	Orthorhombic, <i>P</i> 2 ₁ 2 ₁ 2 ₁	Orthorhombic, <i>P</i> 2 ₁ 2 ₁ 2 ₁
Temperature (K)		123	296	123	296
<i>a</i>, <i>b</i>, <i>c</i> (Å)		14.8167 (5), 21.1134 (7), 9.2070 (5)	14.8251 (11), 21.0826 (16), 9.1676 (6)	10.2480 (8), 12.0087 (11), 23.2139 (16)	10.2304 (3), 11.9959 (5), 23.2353 (9)
<i>V</i> (Å³)		2880.2 (2)	2865.3 (4)	2856.8 (4)	2851.50 (18)
<i>Z</i>		4	4	4	4
<i>T_{min}</i>, <i>T_{max}</i>		0.714, 0.825	0.692, 0.746	0.484, 0.746	0.575, 0.746
No. of measured, independent and observed [<i>I</i> > 2σ(<i>I</i>)] reflections		23795, 8210, 7617	49524, 7276, 6612	23841, 8078, 7068	24864, 6790, 5986
<i>R_{int}</i>		0.047	0.063	0.059	0.060
(sin θ/λ)_{max} (Å⁻¹)		0.699	0.672	0.699	0.658
<i>R</i>[<i>F</i>² > 2σ(<i>F</i>²)], <i>wR</i>(<i>F</i>²), <i>S</i>		0.031, 0.060, 1.02	0.032, 0.058, 1.04	0.032, 0.063, 0.89	0.028, 0.053, 0.88
No. of reflections		8210	7276	8078	6790
No. of parameters		378	372	372	372

3. Biological stability

Decay graph of **1B** in DMEM culture media



4. IR summary of the carboxylate stretching frequencies

Compound	$\nu(-\text{CO}_2\text{H})$	$\nu(-\text{CO}_2(\text{asym}))$	$\nu(-\text{CO}_2(\text{sym}))$	$\Delta\nu$
1	1705 cm^{-1}	-	-	-
1S	-	1690 cm^{-1}	1478 cm^{-1}	212 cm^{-1}
1B	-	1602 cm^{-1} 1558 cm^{-1}	1468 cm^{-1} 1432 cm^{-1}	130 cm^{-1}
2	1710 cm^{-1}	-	-	-
2Sr/2Ss	-	1663 cm^{-1}	1438 cm^{-1}	225 cm^{-1}
2Sr'/2Ss'	-	1678 cm^{-1}	1432 cm^{-1}	246 cm^{-1}
2Br/2Bs	-	1620 cm^{-1} 1556 cm^{-1}	1468 cm^{-1} 1439 cm^{-1}	135 cm^{-1}
3	1715 cm^{-1}	-	-	-
3S	-	1654 cm^{-1}	1482 cm^{-1}	172 cm^{-1}
3B	-	1624 cm^{-1} 1601 cm^{-1}	1557 cm^{-1} 1490 cm^{-1}	177 cm^{-1}