

## Supplementary Material

# Endocyclic and Endo/Exocyclic Silver(I) Complexes of Thioxaaza-Macrocycles: Crystallographic and NMR Studies

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**Table S1.** Crystallographic data and refinement parameters

	<b>L<sup>1</sup></b>	<b>L<sup>2</sup></b>	<b>1</b>	<b>2</b>
formula	C <sub>29</sub> H <sub>27</sub> NO <sub>2</sub> S <sub>2</sub>	C <sub>25</sub> H <sub>27</sub> NO <sub>2</sub> S <sub>3</sub>	C <sub>29</sub> H <sub>27</sub> AgN <sub>2</sub> O <sub>6</sub> S <sub>2</sub>	C <sub>27</sub> H <sub>30</sub> Ag <sub>2</sub> N <sub>4</sub> O <sub>8</sub> S <sub>3</sub>
formula weight	485.64	469.66	671.51	850.47
crystal system	Monoclinic	Triclinic	Monoclinic	Triclinic
space group	<i>P2<sub>1</sub>/n</i>	<i>P</i> -1	<i>P2<sub>1</sub>/n</i>	<i>P</i> -1
<i>a</i> (Å)	15.5129(5)	8.1248(2)	13.620(3)	8.0112(3)
<i>b</i> (Å)	9.4321(3)	8.5333(2)	14.598(3)	14.1442(5)
<i>c</i> (Å)	17.0231(5)	18.2789(5)	14.730(3)	14.5990(6)
$\alpha$ (°)	90	101.403(2)	90	111.102(2)
$\beta$ (°)	96.581(2)	91.947(2)	109.446(11)	90.420(2)
$\gamma$ (°)	90	113.320(2)	90	94.912(2)
<i>V</i> (Å <sup>3</sup> )	2474.39(13)	1131.90(5)	2761.6(10)	1536.35(10)
<i>Z</i>	4	2	4	2
<i>D</i> <sub>calc</sub> (g/cm <sup>3</sup> )	1.304	1.378	1.615	1.838
$\mu$ (mm <sup>-1</sup> )	0.242	0.351	0.928	1.534
2 $\theta$ <sub>max</sub> (°)	52.00	52.00	52.00	52.00
reflections collected	34005	17939	41930	24334
independent reflections	4856 [ <i>R</i> <sub>int</sub> = 0.0411]	4441 [ <i>R</i> <sub>int</sub> = 0.0308]	5426 [ <i>R</i> <sub>int</sub> = 0.0403]	6024 [ <i>R</i> <sub>int</sub> = 0.0462]
goodness-of-fit on <i>F</i> <sup>2</sup>	1.050	1.083	1.036	1.039
<i>R</i> <sub>1</sub> , <i>wR</i> <sub>2</sub> [ <i>I</i> > 2 $\sigma$ ( <i>I</i> )]	0.0319, 0.0806	0.0308, 0.0791	0.0363, 0.1031	0.0290, 0.0766
<i>R</i> <sub>1</sub> , <i>wR</i> <sub>2</sub> (all data)	0.0388, 0.0849	0.0362, 0.0880	0.0521, 0.1144	0.0336, 0.0793

**Table S2.** Selected bond distances (Å) and bond angles (°) for **1**

Ag1-S1	2.5046(10)	Ag1-S2	2.4698(9)
Ag1-O1	2.724(3)	Ag1-O2	2.748(2)
Ag1-N1	2.280(3)		
S1-Ag1-S2	115.22(3)	S1-Ag1-O1	79.04(5)
S1-Ag1-O2	125.49(5)	S1-Ag1-N1	121.18(7)
S2-Ag1-O1	121.28(5)	S2-Ag1-O2	85.24(5)
S2-Ag1-N1	123.39(7)	O1-Ag1-O2	134.44(7)
O1-Ag1-N1	67.69(9)	O2-Ag1-N1	66.76(9)

**Table S3.** Selected bond distances (Å) and bond angles (°) for **2<sup>a</sup>**

Ag1-S1	2.8121(7)	Ag1-S2	2.7271(7)
Ag1-S3	2.5777(7)	Ag1-O1	2.8547(18)
Ag1-N1	2.277(2)	Ag2-S1	2.5304(7)
Ag2-S2A	2.5406(7)	Ag2-O3	2.501(3)
Ag2-O4	2.767(3)	Ag2-O6	2.500(2)
S1-Ag1-S2	77.239(19)	S1-Ag1-S3	92.20(2)
S1-Ag1-N1	127.75(5)	S2-Ag1-S3	81.50(2)
S2-Ag1-N1	132.66(6)	S3-Ag1-N1	128.32(6)
S1-Ag2-O3	107.28(8)	S1-Ag2-O6	93.80(5)
S1-Ag2-S2A	143.63(2)	O3-Ag2-O6	89.58(8)
O6-Ag2-S2A	109.80(5)	O3-Ag2-S2A	100.37(8)

<sup>a</sup>symmetry operation A: x-1, y, z.