Heteroleptic strontium complexes stabilized by donor-functionalized alkoxide and β-diketonate ligands

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Supporting Information

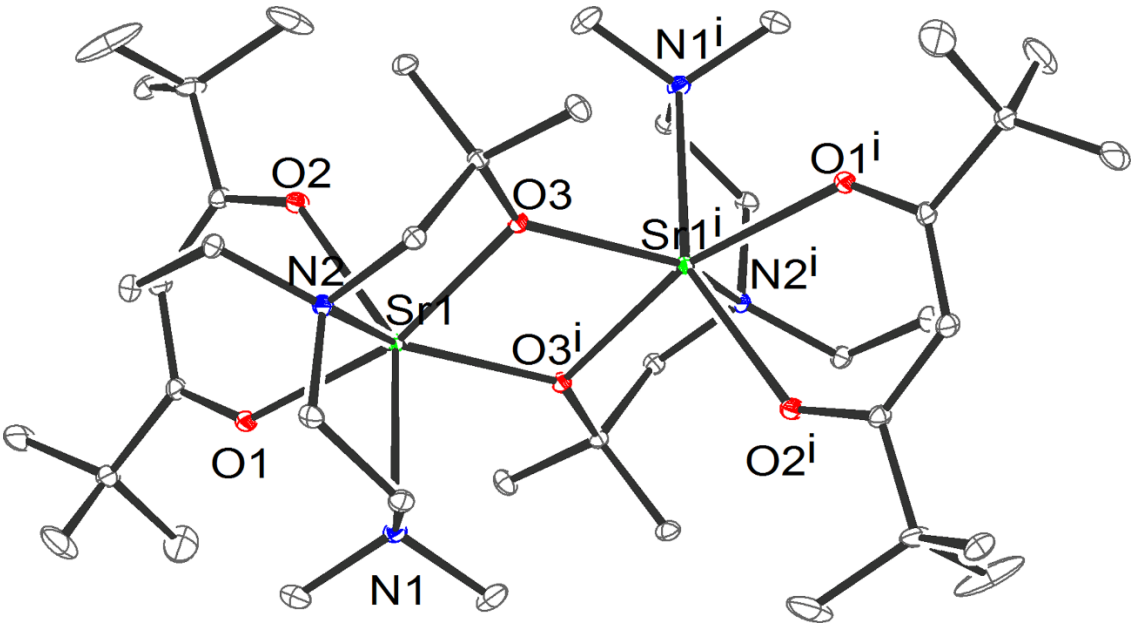

Figure S1. ORTEP diagram of complex [Sr(dmaeeamp)[(tmhd)]$_2$] (**5**).

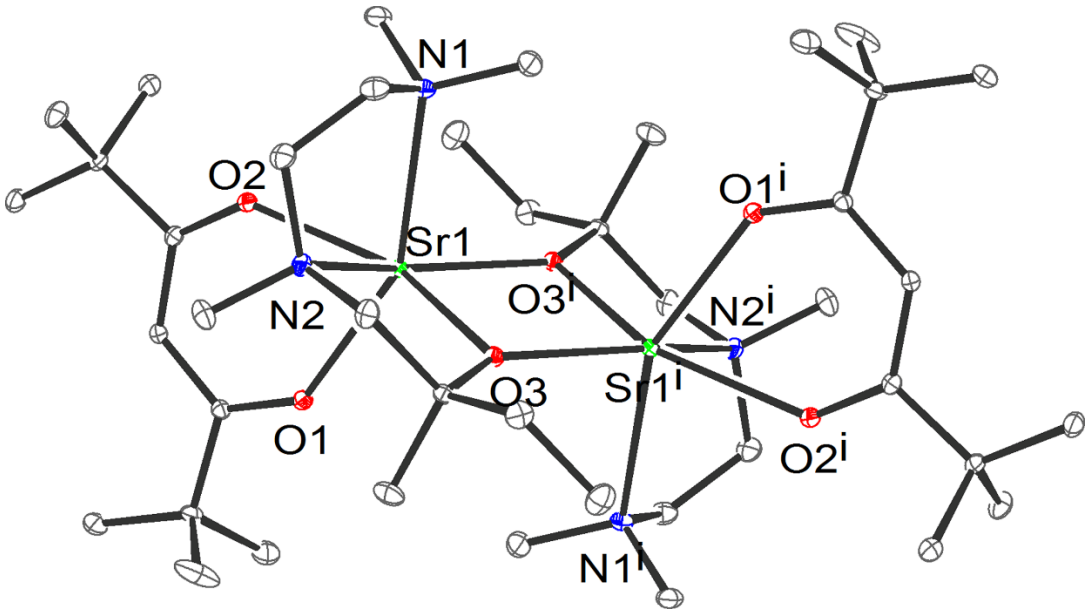

Figure S2. ORTEP diagram of complex [Sr(dmaemamb)[(tmhd)]$_2$] (**6**).

Table S4. Selected bond angles (˚) for **2**, **3**, and **4**.

[Sr(emeamp)(tmhd)]$_3$ (**2**)		[Sr(imeamp)(tmhd)]$_3$ (**3**)		[Sr(memp)(tmhd)]$_3$ (**4**)	
		Angle			
O(1)-Sr(1)-O(2)	69.00(6)	O(11)-Sr(1)-O(2)	102.11(11)	O(3)-Sr(1)-O(2)	131.35(7)
O(1)-Sr(1)-O(3)	149.97(6)	O(11)-Sr(1)-O(1)	100.40(11)	O(3)-Sr(1)-O(8)	79.84(7)
O(2)-Sr(1)-O(3)	103.48(6)	O(2)-Sr(1)-O(1)	70.22(11)	O(2)-Sr(1)-O(8)	141.04(6)
O(1)-Sr(1)-O(7)	91.10(6)	O(11)-Sr(1)-O(7)	78.84(10)	O(3)-Sr(1)-O(13)	79.78(6)
O(2)-Sr(1)-O(7)	114.72(6)	O(2)-Sr(1)-O(7)	107.61(10)	O(2)-Sr(1)-O(13)	95.22(6)
O(3)-Sr(1)-O(7)	64.96(6)	O(1)-Sr(1)-O(7)	177.56(11)	O(8)-Sr(1)-O(13)	64.35(6)
O(1)-Sr(1)-O(10)	105.96(6)	O(11)-Sr(1)-O(3)	77.50(10)	O(3)-Sr(1)-O(4)	63.97(7)
O(2)-Sr(1)-O(10)	166.94(6)	O(2)-Sr(1)-O(3)	174.64(10)	O(2)-Sr(1)-O(4)	88.58(7)
O(3)-Sr(1)-O(10)	86.78(6)	O(1)-Sr(1)-O(3)	115.13(10)	O(8)-Sr(1)-O(4)	129.89(7)
O(7)-Sr(1)-O(10)	76.79(6)	O(7)-Sr(1)-O(3)	67.05(9)	O(13)-Sr(1)-O(4)	133.55(6)
O(1)-Sr(1)-O(4)	80.84(6)	O(11)-Sr(1)-O(5)	149.27(9)	O(3)-Sr(1)-O(1)	154.28(7)
O(2)-Sr(1)-O(4)	81.61(7)	O(2)-Sr(1)-O(5)	101.73(10)	O(2)-Sr(1)-O(1)	68.80(7)
O(3)-Sr(1)-O(4)	127.96(6)	O(1)-Sr(1)-O(5)	105.75(10)	O(8)-Sr(1)-O(1)	75.63(6)
O(7)-Sr(1)-O(4)	157.95(6)	O(7)-Sr(1)-O(5)	75.64(9)	O(13)-Sr(1)-O(1)	82.73(6)
O(10)-Sr(1)-O(4)	85.70(6)	O(3)-Sr(1)-O(5)	76.96(9)	O(4)-Sr(1)-O(1)	140.01(6)
O(1)-Sr(1)-N(1)	136.49(7)	O(7)-Sr(2)-O(6)	148.16(10)	O(3)-Sr(1)-O(5)	112.69(7)
O(2)-Sr(1)-N(1)	84.29(7)	O(7)-Sr(2)-O(3)	68.42(10)	O(2)-Sr(1)-O(5)	82.83(7)
O(3)-Sr(1)-N(1)	67.79(6)	O(6)-Sr(2)-O(3)	93.43(10)	O(8)-Sr(1)-O(5)	108.31(7)
O(7)-Sr(1)-N(1)	131.91(6)	O(7)-Sr(2)-O(5)	79.97(10)	O(13)-Sr(1)-O(5)	164.98(6)
O(10)-Sr(1)-N(1)	92.34(6)	O(6)-Sr(2)-O(5)	71.08(10)	O(4)-Sr(1)-O(5)	61.42(6)
O(4)-Sr(1)-N(1)	61.19(6)	O(3)-Sr(2)-O(5)	80.44(10)	O(1)-Sr(1)-O(5)	82.68(6)

O(11)-Sr(2)-O(5)	101.84(6)	O(7)-Sr(2)-O(9)	82.07(10)	O(3)-Sr(2)-O(7)	98.62(7)
O(11)-Sr(2)-O(6)	95.26(7)	O(6)-Sr(2)-O(9)	119.35(10)	O(3)-Sr(2)-O(6)	93.90(7)
O(5)-Sr(2)-O(6)	68.23(6)	O(3)-Sr(2)-O(9)	74.64(10)	O(7)-Sr(2)-O(6)	69.61(7)
O(11)-Sr(2)-O(8)	177.36(7)	O(5)-Sr(2)-O(9)	153.31(10)	O(3)-Sr(2)-O(13)	80.46(6)
O(5)-Sr(2)-O(8)	80.37(6)	O(7)-Sr(2)-O(8)	125.88(10)	O(7)-Sr(2)-O(13)	166.11(7)
O(6)-Sr(2)-O(8)	86.88(7)	O(6)-Sr(2)-O(8)	76.84(10)	O(6)-Sr(2)-O(13)	96.58(6)
O(11)-Sr(2)-O(7)	79.77(6)	O(3)-Sr(2)-O(8)	164.02(10)	O(3)-Sr(2)-O(8)	77.98(6)
O(5)-Sr(2)-O(7)	134.30(6)	O(5)-Sr(2)-O(8)	107.65(10)	O(7)-Sr(2)-O(8)	130.70(6)
O(6)-Sr(2)-O(7)	157.42(6)	O(9)-Sr(2)-O(8)	98.87(10)	O(6)-Sr(2)-O(8)	158.72(6)
O(8)-Sr(2)-O(7)	97.67(6)	O(7)-Sr(2)-N(2)	65.17(10)	O(13)-Sr(2)-O(8)	62.87(6)
O(11)-Sr(2)-O(3)	80.91(6)	O(6)-Sr(2)-N(2)	130.70(11)	O(3)-Sr(2)-O(9)	123.37(7)
O(5)-Sr(2)-O(3)	163.26(6)	O(3)-Sr(2)-N(2)	133.08(10)	O(7)-Sr(2)-O(9)	81.43(7)
O(6)-Sr(2)-O(3)	95.14(6)	O(5)-Sr(2)-N(2)	97.76(10)	O(6)-Sr(2)-O(9)	136.03(7)
O(8)-Sr(2)-O(3)	97.38(6)	O(9)-Sr(2)-N(2)	92.39(10)	O(13)-Sr(2)-O(9)	110.78(6)
O(7)-Sr(2)-O(3)	62.39(6)	O(8)-Sr(2)-N(2)	60.71(10)	O(8)-Sr(2)-O(9)	62.13(6)
O(11)-Sr(2)-N(2)	113.11(7)	O(11)-Sr(3)-O(7)	79.04(10)	O(3)-Sr(2)-O(10)	173.16(7)
O(5)-Sr(2)-N(2)	74.05(6)	O(11)-Sr(3)-O(10)	139.65(11)	O(7)-Sr(2)-O(10)	76.51(7)
O(6)-Sr(2)-N(2)	136.60(6)	O(7)-Sr(3)-O(10)	94.35(10)	O(6)-Sr(2)-O(10)	79.95(7)
O(8)-Sr(2)-N(2)	65.98(6)	O(11)-Sr(3)-O(3)	77.05(10)	O(13)-Sr(2)-O(10)	103.08(6)
O(7)-Sr(2)-N(2)	64.02(6)	O(7)-Sr(3)-O(3)	67.78(10)	O(8)-Sr(2)-O(10)	108.82(6)
O(3)-Sr(2)-N(2)	120.39(6)	O(10)-Sr(3)-O(3)	137.23(10)	O(9)-Sr(2)-O(10)	61.14(6)
O(11)-Sr(3)-O(9)	134.47(7)	O(11)-Sr(3)-O(12)	111.82(10)	O(11)-Sr(3)-O(12)	69.57(7)
O(11)-Sr(3)-O(7)	80.91(6)	O(7)-Sr(3)-O(12)	168.44(10)	O(11)-Sr(3)-O(13)	102.48(6)
O(9)-Sr(3)-O(7)	137.53(7)	O(10)-Sr(3)-O(12)	79.90(10)	O(12)-Sr(3)-O(13)	151.99(7)
O(11)-Sr(3)-O(3)	82.17(6)	O(3)-Sr(3)-O(12)	109.82(10)	O(11)-Sr(3)-O(8)	116.19(7)
O(9)-Sr(3)-O(3)	93.64(7)	O(11)-Sr(3)-O(9)	147.09(10)	O(12)-Sr(3)-O(8)	93.87(6)
O(7)-Sr(3)-O(3)	64.64(6)	O(7)-Sr(3)-O(9)	78.91(9)	O(13)-Sr(3)-O(8)	64.80(6)
O(11)-Sr(3)-O(12A)	107.91(7)	O(10)-Sr(3)-O(9)	66.29(10)	O(11)-Sr(3)-O(1)	167.33(7)
O(9)-Sr(3)-O(12A)	85.42(8)	O(3)-Sr(3)-O(9)	72.11(9)	O(12)-Sr(3)-O(1)	108.12(7)
O(7)-Sr(3)-O(12A)	107.58(7)	O(12)-Sr(3)-O(9)	89.58(9)	O(13)-Sr(3)-O(1)	85.18(6)
O(3)-Sr(3)-O(12A)	166.70(7)	O(11)-Sr(3)-N(3)	63.25(10)	O(8)-Sr(3)-O(1)	76.13(6)
O(11)-Sr(3)-O(10)	155.21(6)	O(7)-Sr(3)-N(3)	127.63(10)	O(11)-Sr(3)-O(14)	88.21(7)
O(9)-Sr(3)-O(10)	66.34(6)	O(10)-Sr(3)-N(3)	92.49(10)	O(12)-Sr(3)-O(14)	138.67(6)
O(7)-Sr(3)-O(10)	74.76(6)	O(3)-Sr(3)-N(3)	129.57(10)	O(13)-Sr(3)-O(14)	64.75(6)
O(3)-Sr(3)-O(10)	83.16(6)	O(12)-Sr(3)-N(3)	63.06(10)	O(8)-Sr(3)-O(14)	127.44(6)
O(12A)-Sr(3)-O(10)	84.32(7)	O(9)-Sr(3)-N(3)	148.61(10)	O(1)-Sr(3)-O(14)	85.98(6)
O(11)-Sr(3)-N(3A)	63.23(7)	Sr(2)-O(3)-Sr(3)	92.53(10)	O(11)-Sr(3)-O(15)	80.06(7)
O(9)-Sr(3)-N(3A)	88.19(8)	Sr(2)-O(3)-Sr(1)	91.37(10)	O(12)-Sr(3)-O(15)	81.04(7)
O(7)-Sr(3)-N(3A)	133.92(8)	Sr(3)-O(3)-Sr(1)	88.24(10)	O(13)-Sr(3)-O(15)	125.10(6)
O(3)-Sr(3)-N(3A)	131.14(8)	Sr(1)-O(11)-Sr(3)	93.56(11)	O(8)-Sr(3)-O(15)	160.26(6)
O(12A)-Sr(3)-N(3A)	62.14(9)	Sr(2)-O(5)-Sr(1)	87.54(9)	O(1)-Sr(3)-O(15)	87.28(6)
O(10)-Sr(3)-N(3A)	139.78(7)	Sr(2)-O(9)-Sr(3)	86.75(9)	O(14)-Sr(3)-O(15)	60.51(6)
Sr(1)-O(10)-Sr(3)	85.30(6)	Sr(2)-O(7)-Sr(3)	95.65(10)	Sr(3)-O(1)-Sr(1)	87.81(6)
Sr(2)-O(11)-Sr(3)	93.96(7)	Sr(2)-O(7)-Sr(1)	93.56(10)	Sr(2)-O(3)-Sr(1)	95.00(7)
Sr(1)-O(3)-Sr(3)	92.07(6)	Sr(3)-O(7)-Sr(1)	90.03(10)	Sr(1)-O(8)-Sr(3)	91.39(6)
Sr(1)-O(3)-Sr(2)	104.33(6)			Sr(1)-O(8)-Sr(2)	87.88(6)
Sr(3)-O(3)-Sr(2)	86.05(5)			Sr(3)-O(8)-Sr(2)	101.72(6)
Sr(3)-O(7)-Sr(1)	91.45(6)			Sr(3)-O(13)-Sr(2)	104.83(7)
Sr(3)-O(7)-Sr(2)	86.94(6)			Sr(3)-O(13)-Sr(1)	90.97(6)
Sr(1)-O(7)-Sr(2)	103.71(6)			Sr(2)-O(13)-Sr(1)	88.20(6)

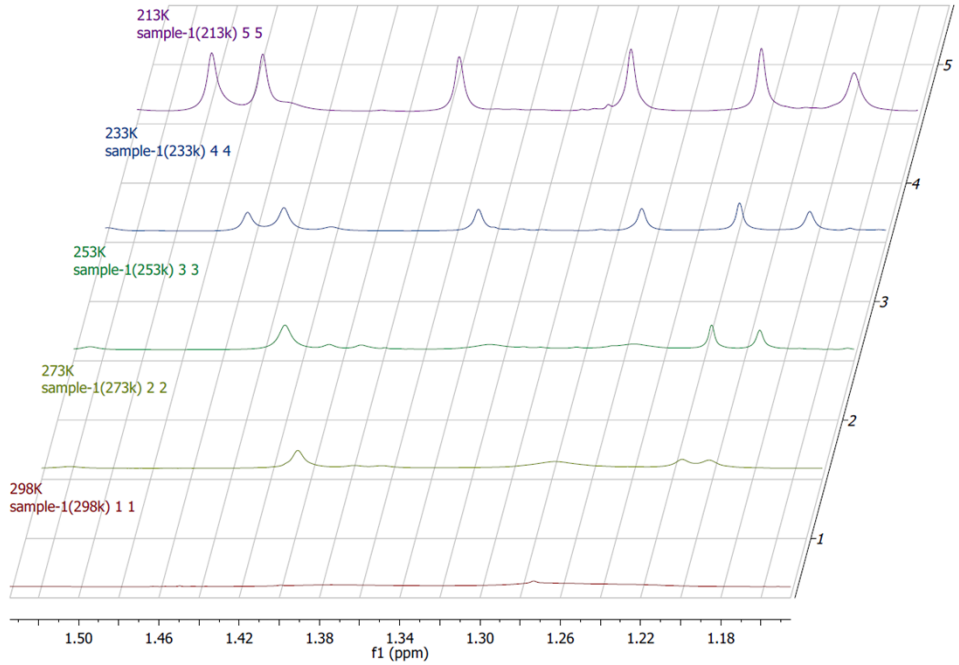

Figure S3. (a) VT-NMR data of tmhd-^{t}Bu protons in complex **1.**

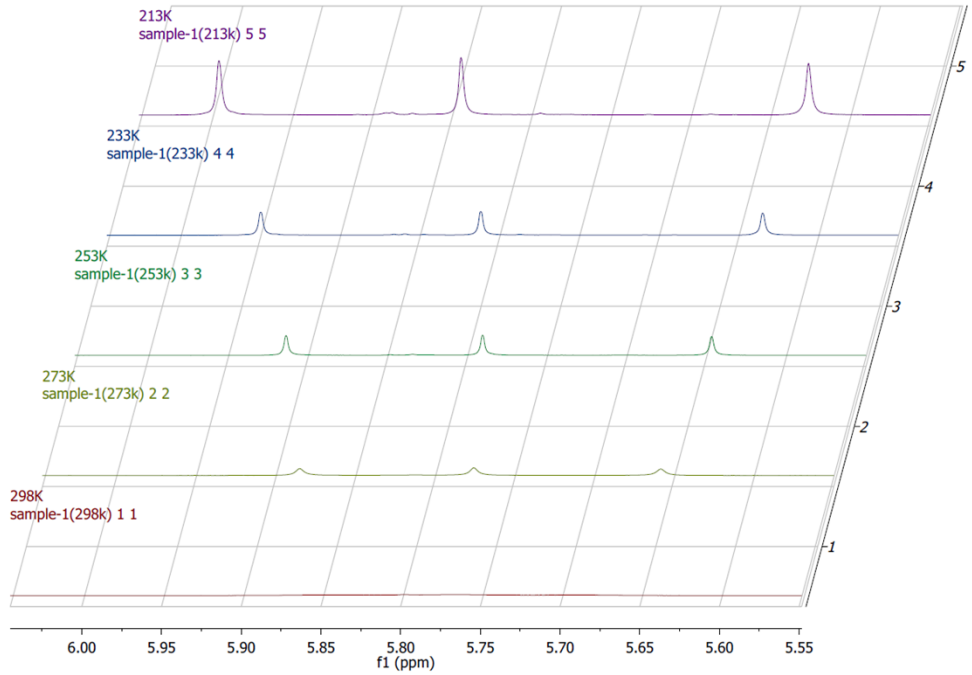

Figure S3. (b) VT-NMR data of tmhd-β-C*H* protons in complex **1.**

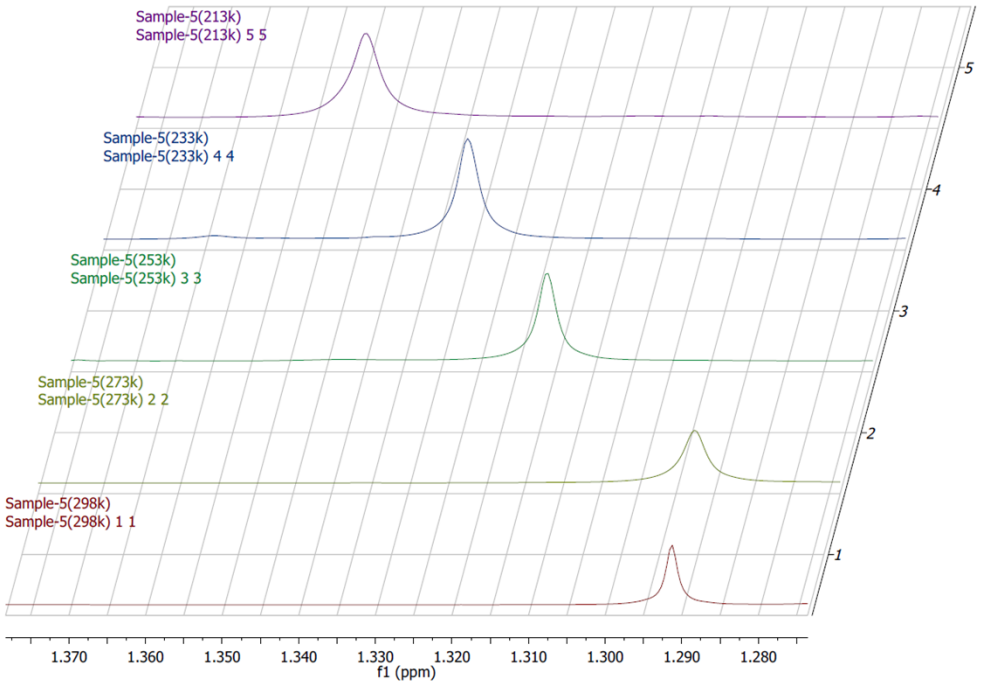

Figure S3. (c) VT-NMR data of tmhd-^{t}Bu protons in complex **5.**

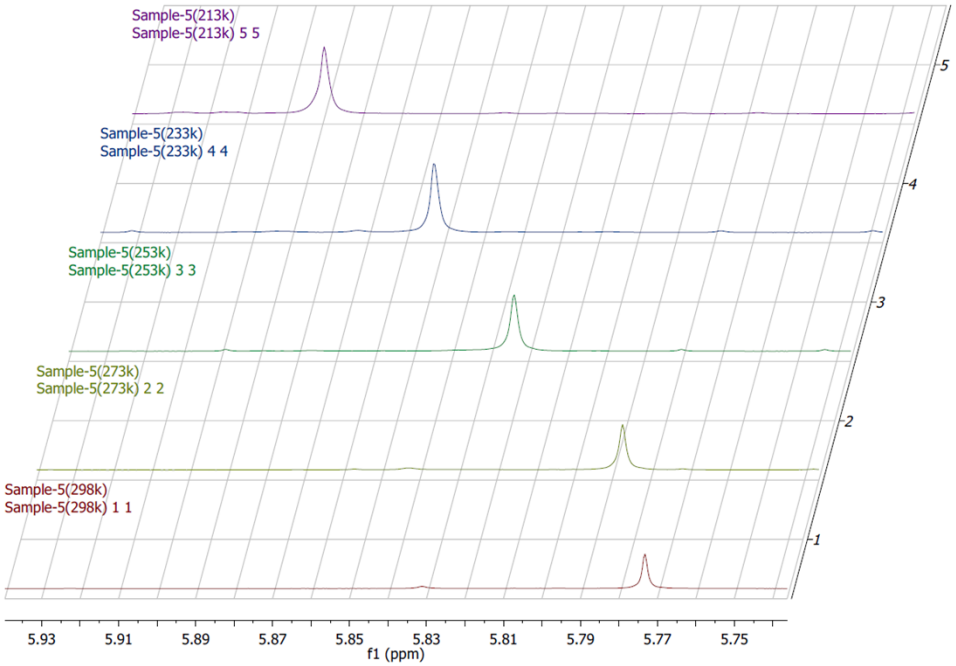

Figure S3. (d) VT-NMR data of tmhd-β-C*H* protons in complex **5.**

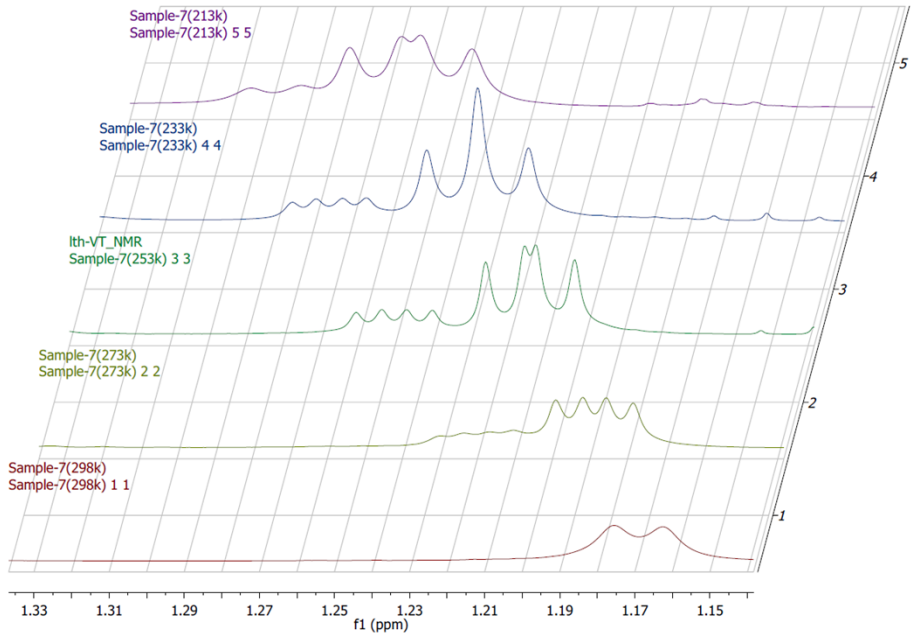

Figure S3. (e) VT-NMR data of dmhd-^{i}Pr protons in complex **7.**

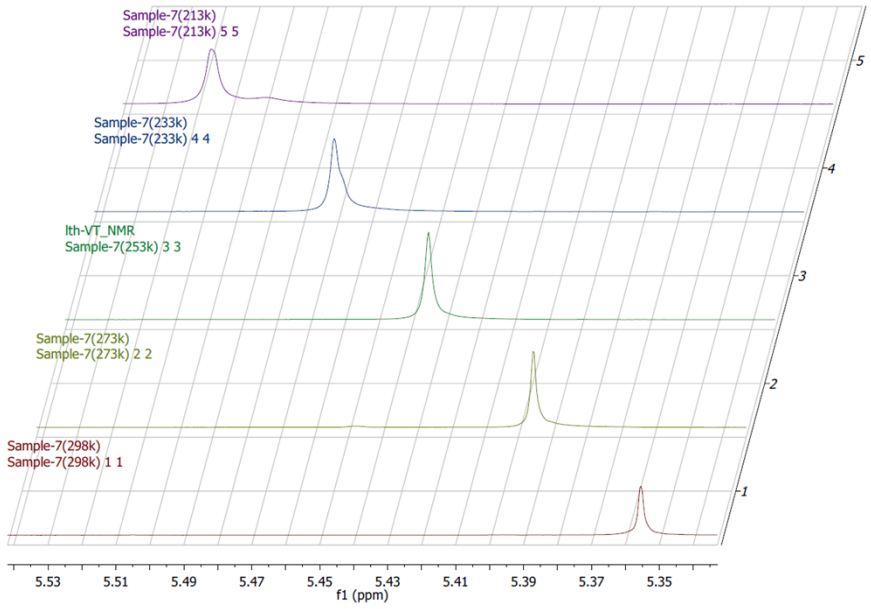

Figure S3. (f) VT-NMR data of dmhd-β-C*H* protons in complex **7.**

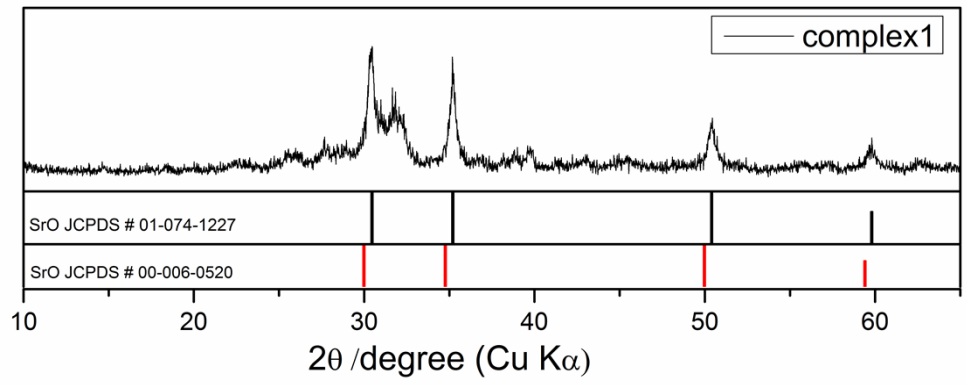

Figure S4. XRD pattern for decomposed residue of **1**.