

Supporting Information

Synthesis of Heteroleptic [Sr(ddmap)(tmhd)]₂ and Its Use in Atomic Layer Deposition of Low Carbon SrO Thin Films

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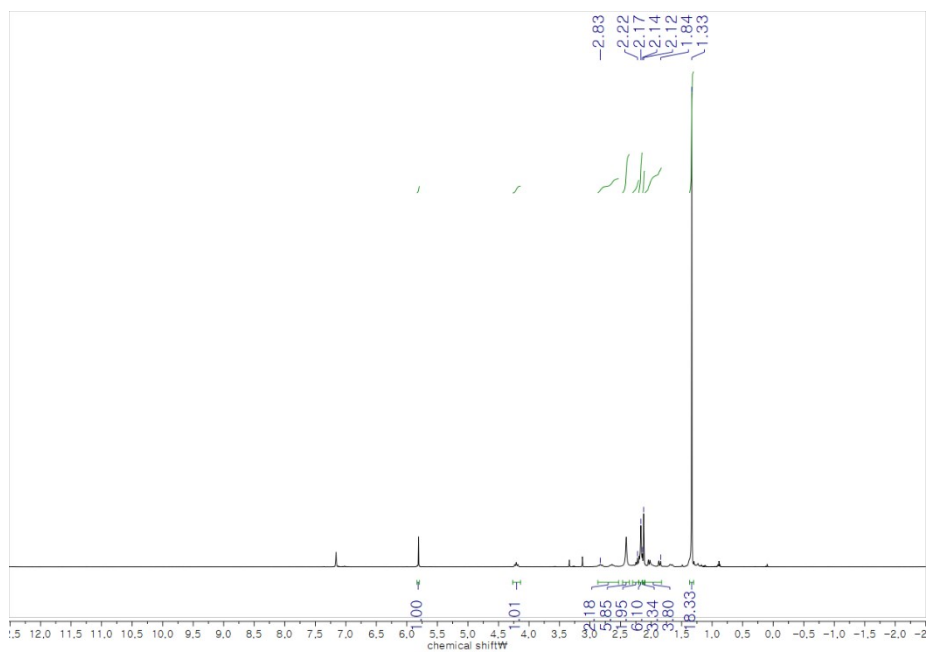


Figure S1. ^1H -NMR spectra of complexes **1**.

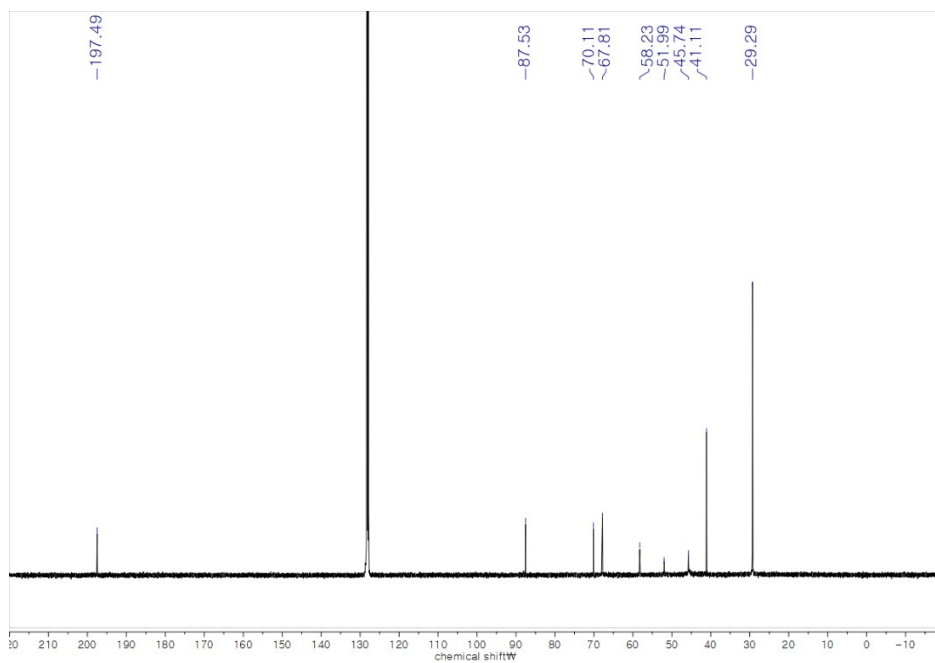


Figure S2. ^{13}C -NMR spectra of complex **1**.

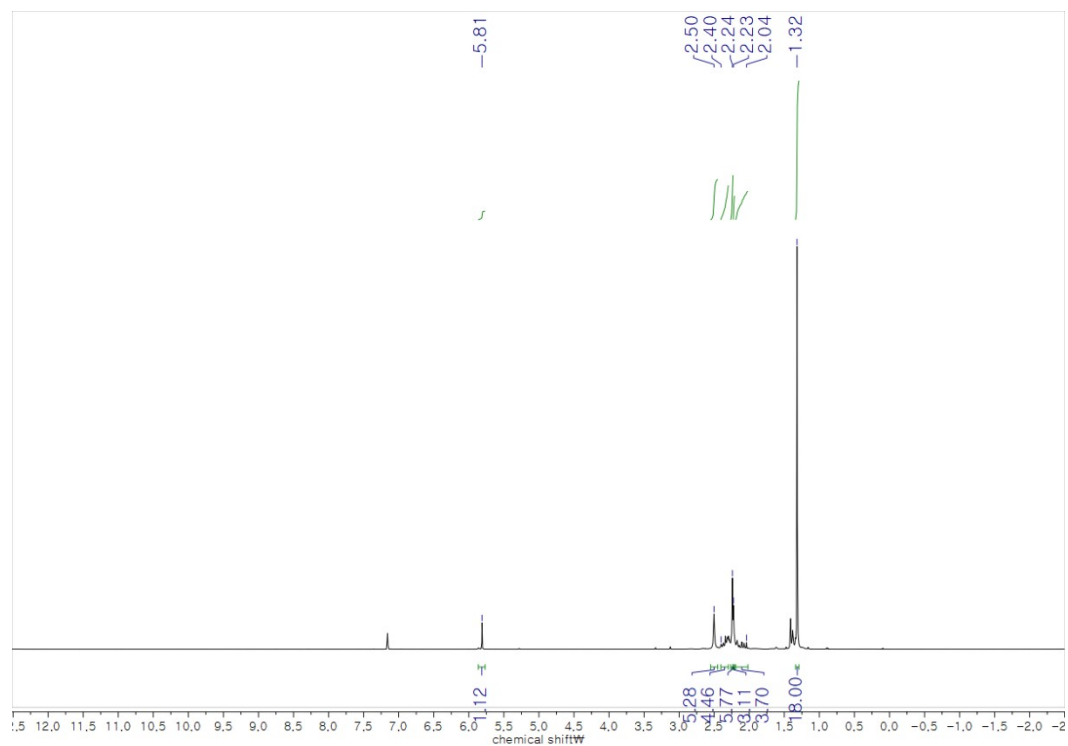


Figure S3. ¹H-NMR spectra of complex 2.

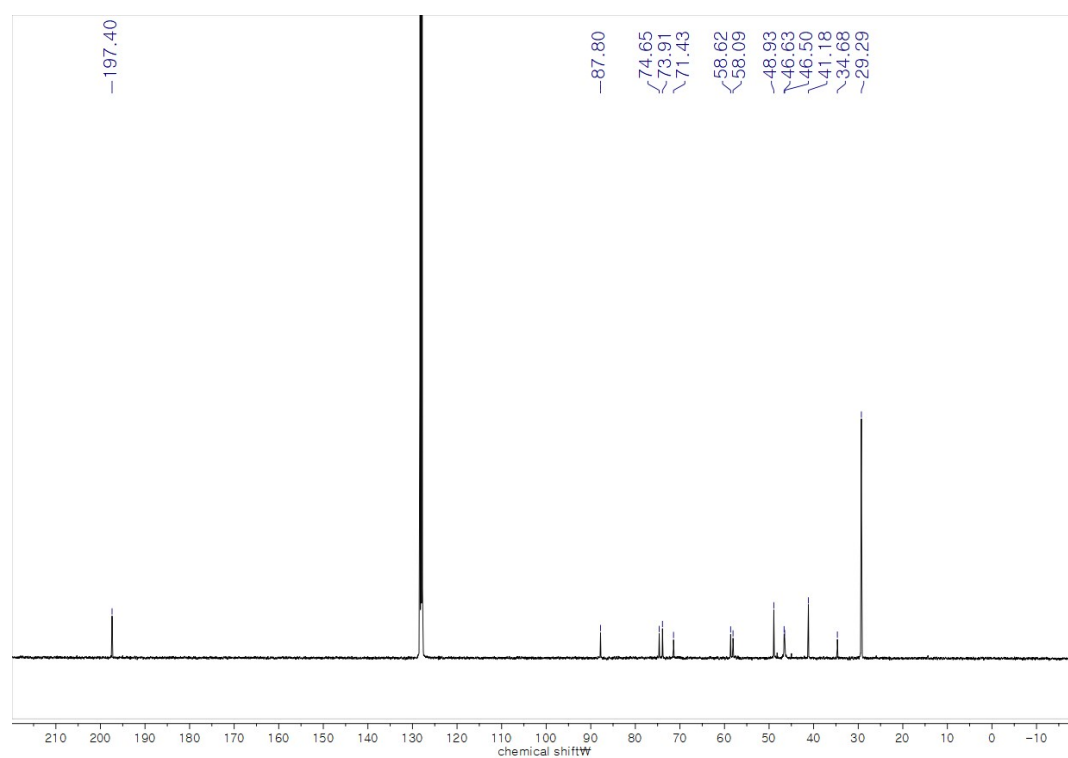


Figure S4. ¹³C-NMR spectra of complex 2.

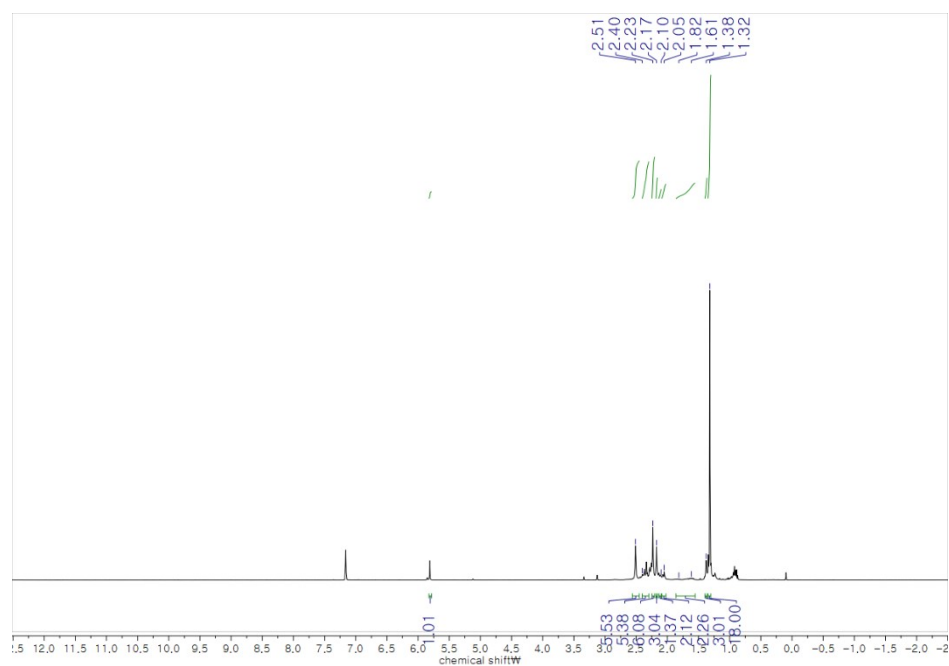


Figure S5. ^1H -NMR spectra of complex **3**.

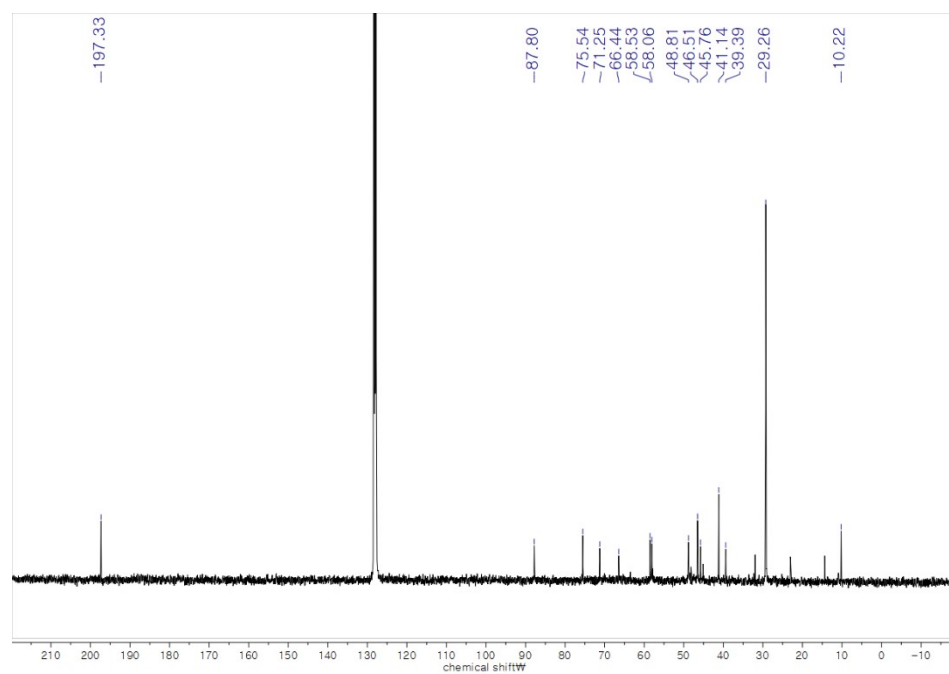


Figure S6. ^{13}C -NMR spectra of complex **3**.

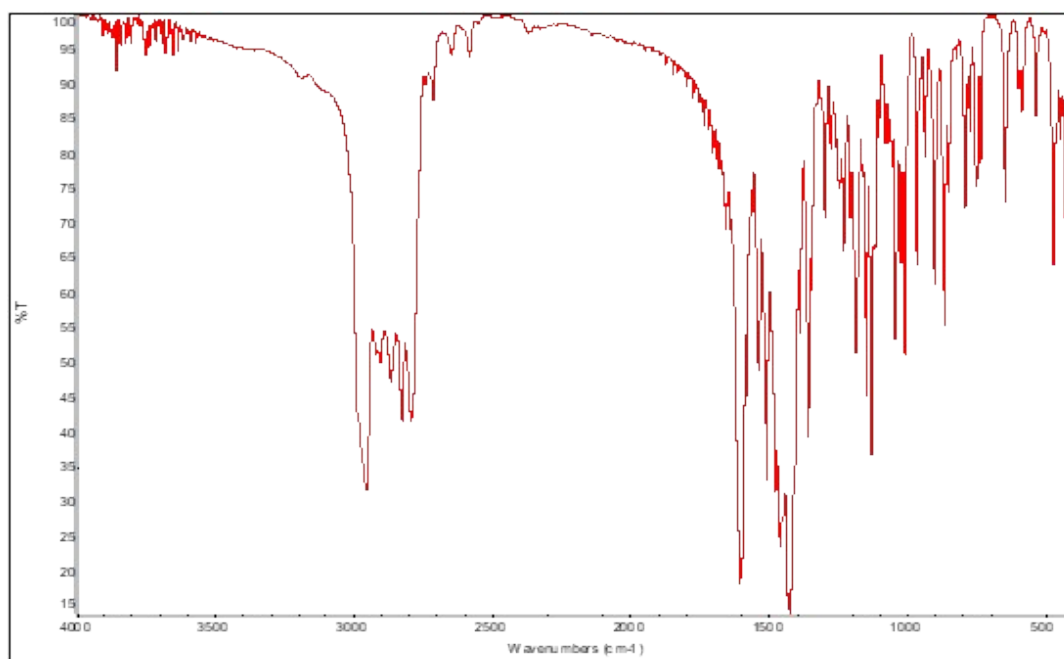


Figure S7. FT-IR spectra of complex **1**.

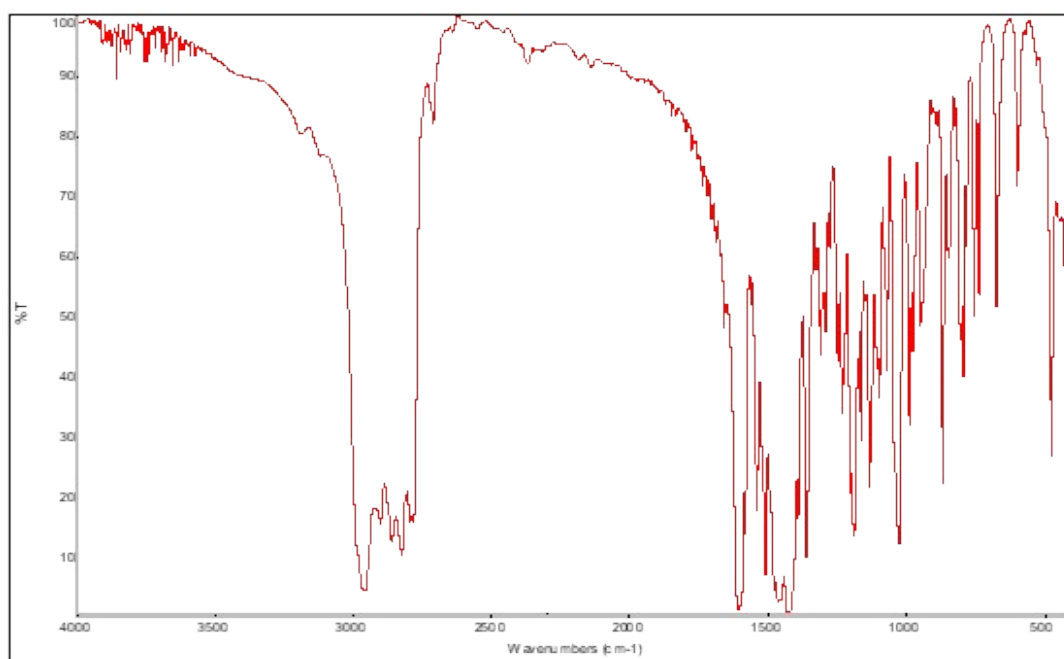


Figure S8. FT-IR spectra of complex **2**.

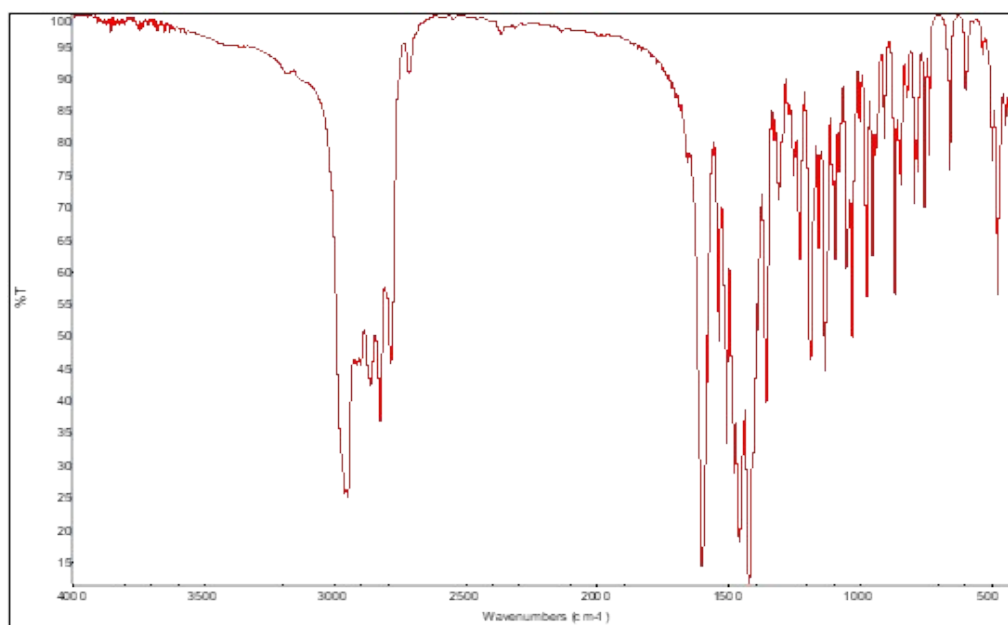


Figure S9. FT-IR spectra of complex **3**.

Table S1. X-ray data collection and structure refinement for complex **1**.

Compound		1	
Formula weight	2558.9(2)	<i>Z</i>	4
Temperature (K)	100	$\rho_{\text{calcd.}}$ (Mg/m ³)	1.223
Wavelength (Å)	0.71073	μ (mm ⁻¹)	2.129
Crystal system	Monoclinic	<i>F</i> (000)	994.5
Space group	<i>P</i> 2(1)/ <i>n</i>	Crystal size(mm ³)	0.22X0.14X0.10
<i>a</i> (Å)	12.6947(7)	Theta range (°)	2.39 to 25.40
<i>b</i> (Å)	16.0289(8)	Index ranges	-11 ≤ <i>h</i> ≤ 15, -17 ≤ <i>k</i> ≤ 19, -15 ≤ <i>l</i> ≤ 11
<i>c</i> (Å)	12.9162(6)	Indep. refl.	32673
α (°)	90	Parameters	263
β (°)	103.190(2)	GOF on <i>F</i> ²	1.054
γ (°)	90	<i>R</i> 1 [<i>I</i> > 2 σ (<i>I</i>)] (a)	0.0311
<i>V</i> (Å ³)	2558.9(2)	<i>wR</i> 2 [<i>I</i> > 2 σ (<i>I</i>)] (b)	0.0855

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

Complex 1		Complex 2	
Bond Lengths (Å)			
Sr1-Sr1	3.884(4)	Sr1-O3(2)	2.4298(16)
Sr1-O1	2.4306(17)	Sr1-N5	2.8440(2)
Sr1-O2	2.4964(16)	Sr1-N6	2.7900(2)
Sr1-O3	2.4188(16)	Sr1-N7	2.7300(2)
Bond Angles (°)			
O1 Sr1 O2	70.53(6)	N5 Sr1 O2	77.13(6)
O3 Sr1 O2	147.58(6)	N5 Sr1 O1	102.76(6)
O3 Sr1 O2	138.43(5)	N5 Sr1 O3	63.94(5)
O3 Sr1 O1	103.33(6)	N5 Sr1 O3	135.01(6)
O3 Sr1 O1	100.06(6)	N7 Sr1 O2	83.46(6)
N6 Sr1 O2	83.05(6)	N7 Sr1 O1	142.42(6)
N6 Sr1 O1	83.73(6)	N7 Sr1 O3	114.05(6)
N6 Sr1 O3	64.86(6)	N7 Sr1 O3	87.42(6)
N6 Sr1 O3	138.21(6)	N7 Sr1 N5	97.07(6)
N6 Sr1 N5	155.48(6)	Sr1 O1 Sr1(2)	106.47