Supplementary Information for

## A bipyridyl thorium metallocene: synthesis, structure and reactivity

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Fig. S1. UV-Vis spectrum of  $[\eta^5 - 1, 3 - (Me_3C)_2C_5H_3]_2$ Th(bipy) (2) (concentration is  $2.5 \times 10^{-4}$  M in toluene).  $\lambda_{\text{max}} = 375$  nm ( $\varepsilon = 2.70 \times 10^3 \text{ M}^{-1} \text{ cm}^{-1}$ ), 522 nm ( $\varepsilon = 1.66 \times 10^3 \text{ M}^{-1} \text{ cm}^{-1}$ ).



Figure S3. <sup>13</sup>C NMR spectrum of the complex 2.

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**Figure S7.** <sup>13</sup>C NMR spectrum of the complex **4**.



**Figure S8.** <sup>1</sup>H NMR spectrum of the complex **5**.



Figure S9. <sup>13</sup>C NMR spectrum of the complex 5.

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Figure S10. <sup>1</sup>H NMR spectrum of the complex 6.



Figure S11. <sup>13</sup>C NMR spectrum of the complex 6.

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**Figure S13.** <sup>13</sup>C NMR spectrum of the complex **8**.



Figure S15. <sup>13</sup>C NMR spectrum of the complex 10.