

*Supporting Information for*

**Synthesis of Polymers with Densely-grafted Oligo(ethylene glycol)s by Pd-initiated  
Polymerization of Oxyethylene-containing Diazoacetates**

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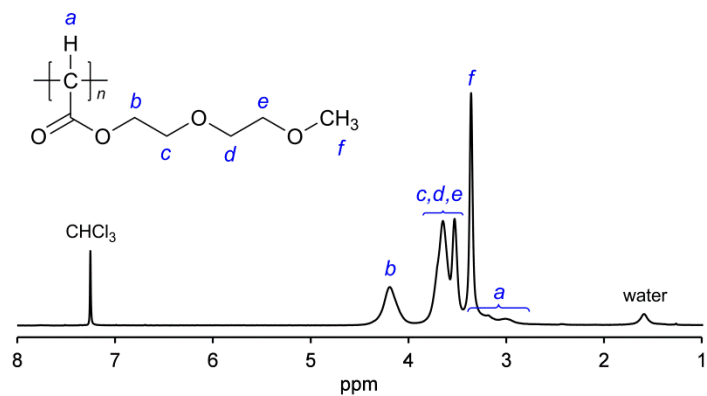
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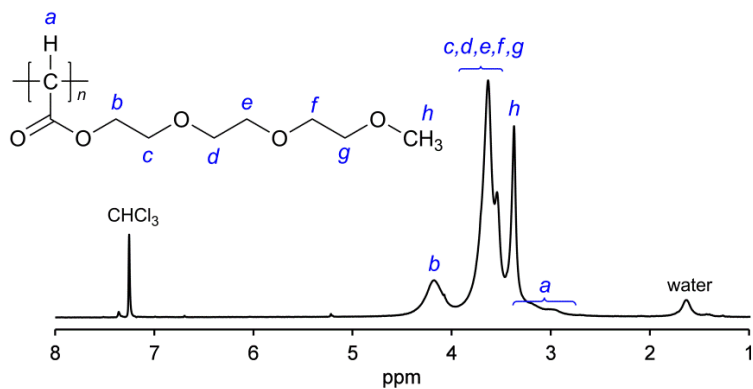
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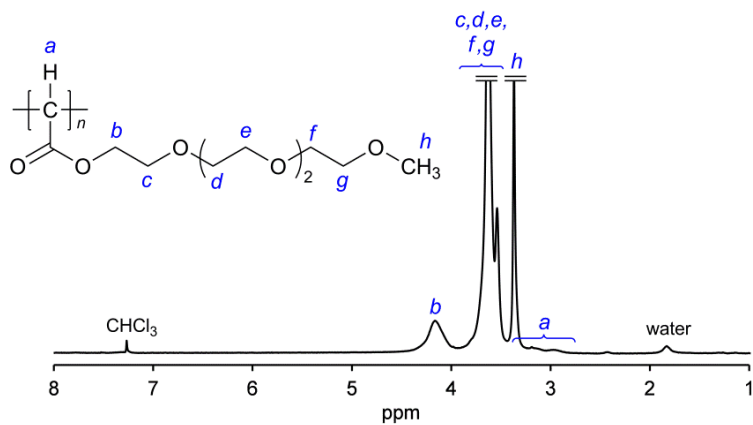
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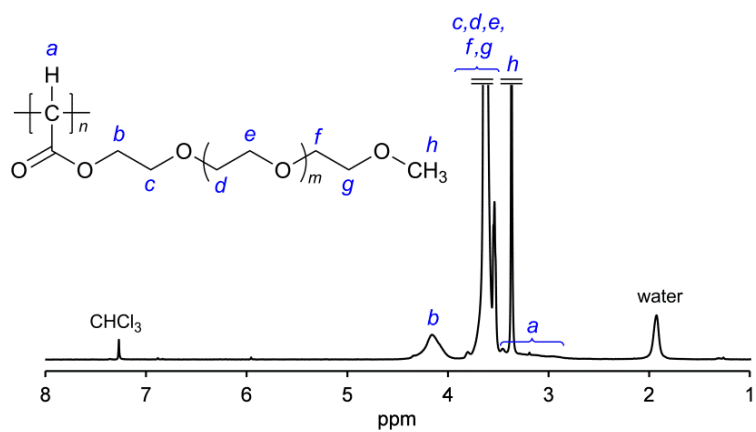
**Figure S1.**  $^1\text{H}$  NMR spectrum of P(OEG<sub>2</sub>D) (Table 1, entry 4) recorded in  $\text{CDCl}_3$ .



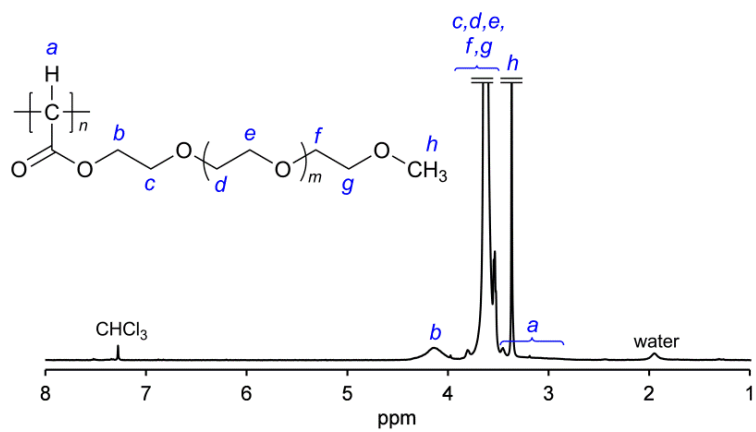
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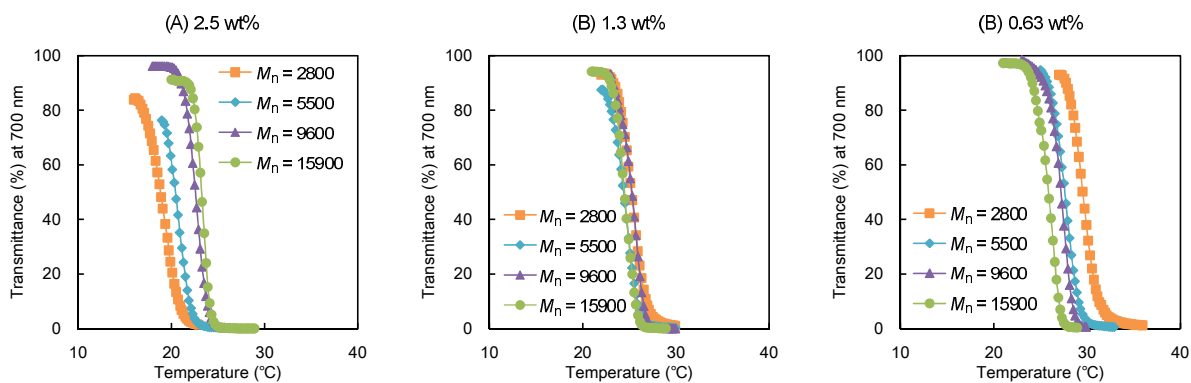
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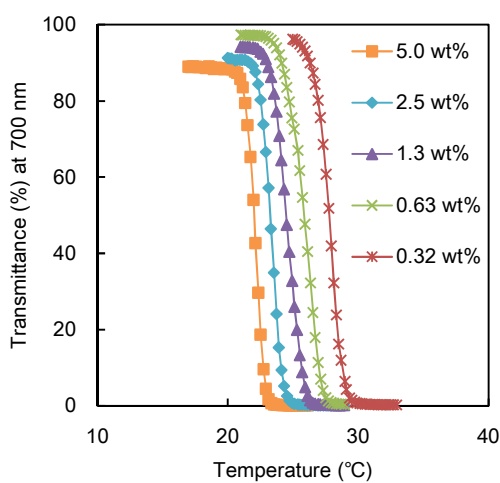
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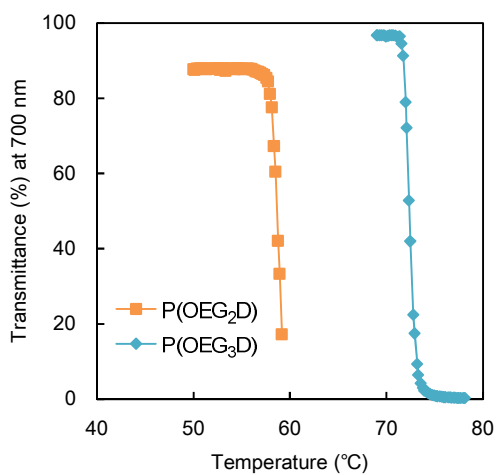
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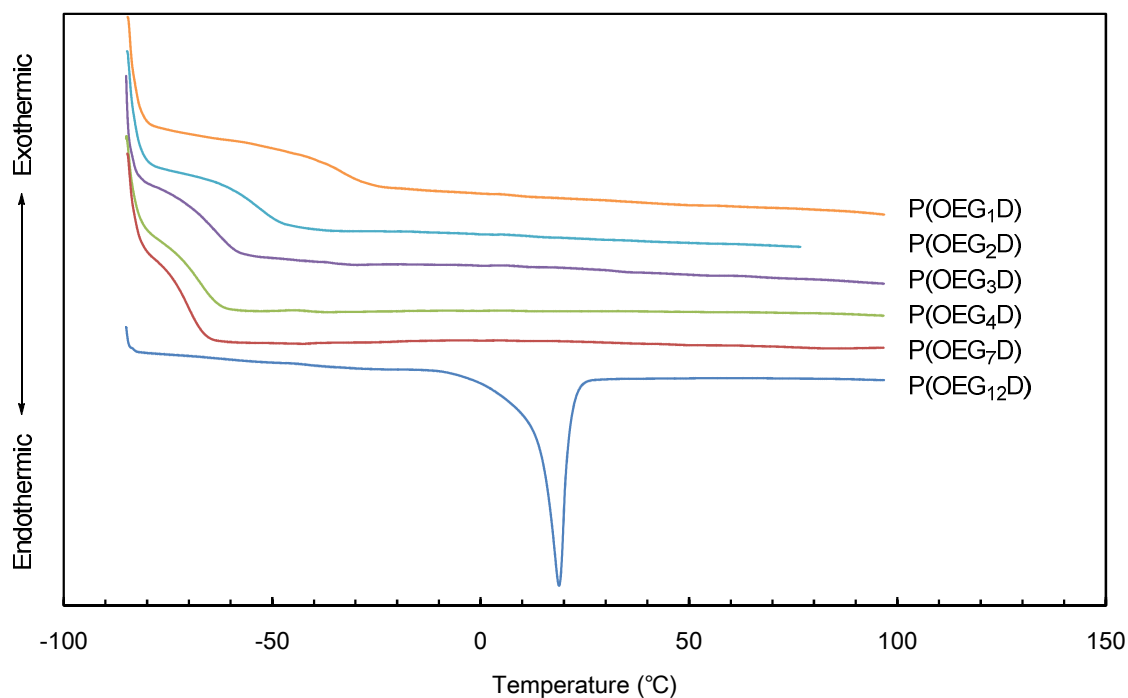
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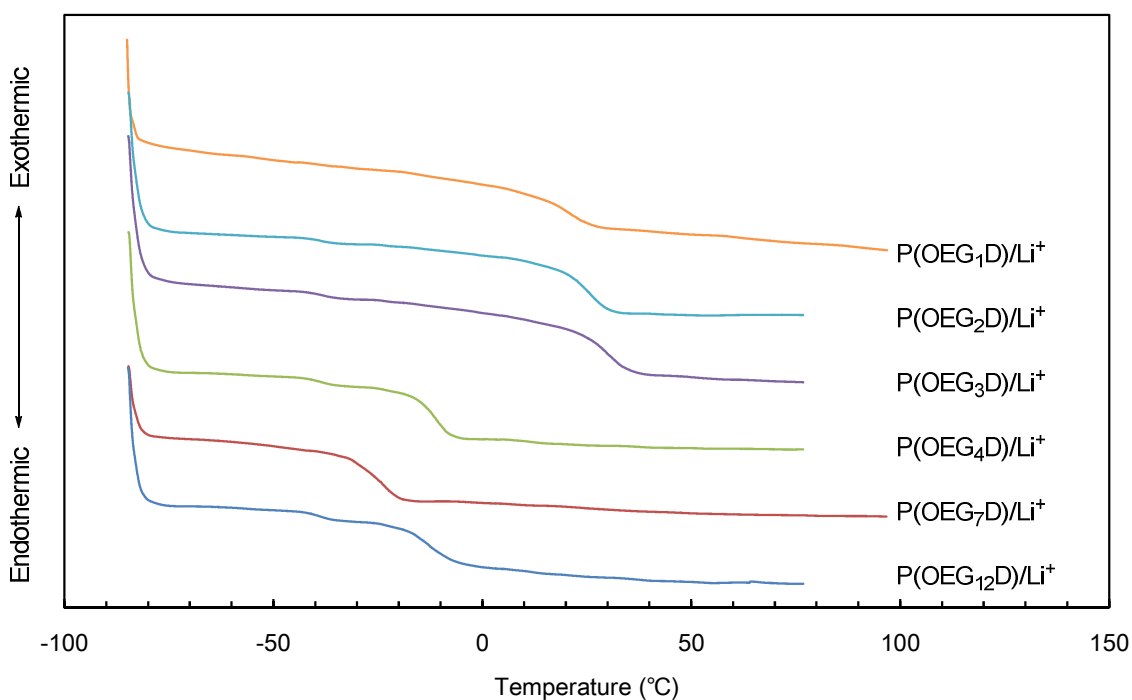
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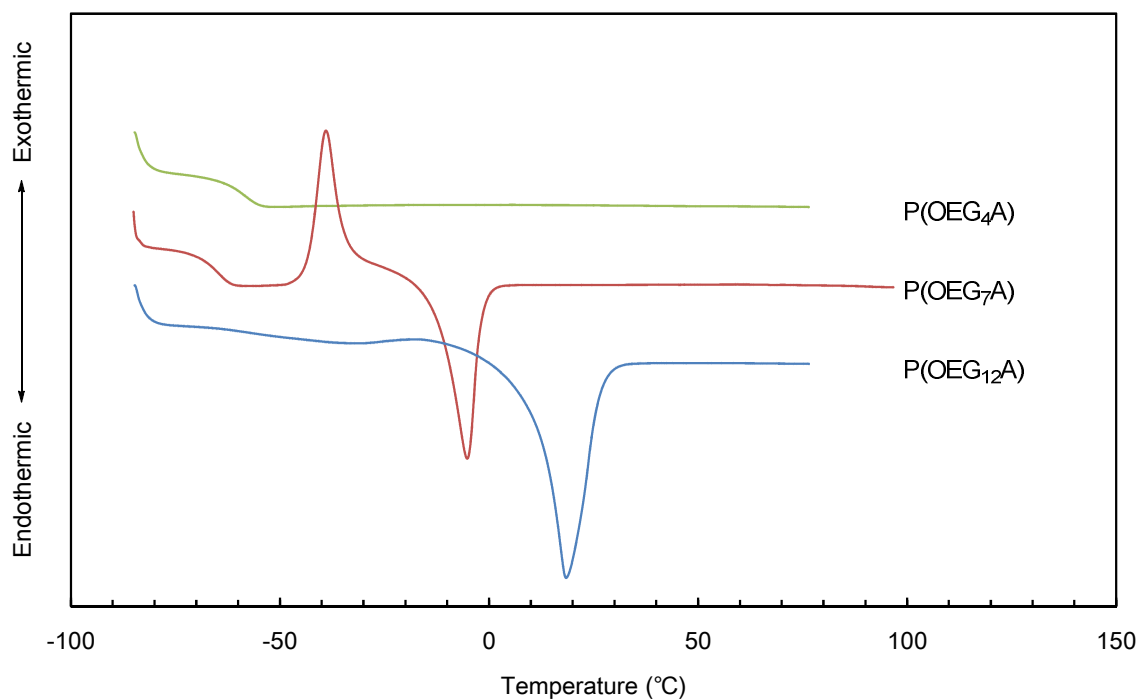
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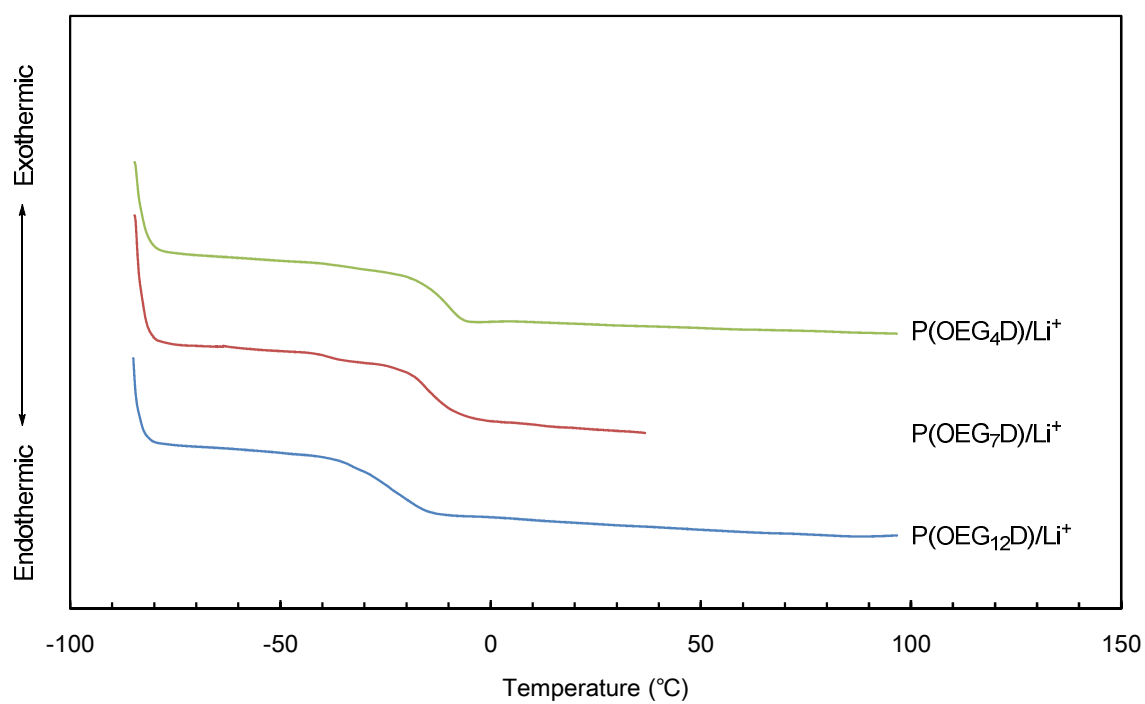
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**Figure S10.** DSC curves for P(OEG<sub>x</sub>D)/Li<sup>+</sup> complexes at a heating rate of 10 °C/min [CF<sub>3</sub>SO<sub>3</sub>Li/oxyethylene unit = 0.2. P(OEG<sub>1</sub>D):  $M_n$  = 6500, P(OEG<sub>2</sub>D):  $M_n$  = 8600, P(OEG<sub>3</sub>D):  $M_n$  = 10300, P(OEG<sub>4</sub>D):  $M_n$  = 11100, P(OEG<sub>7</sub>D):  $M_n$  = 16500, P(OEG<sub>12</sub>D):  $M_n$  = 17300].



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**Figure S12.** DSC curves for P(OEG<sub>x</sub>A)/Li<sup>+</sup> complexes at a heating rate of 10 °C/min [CF<sub>3</sub>SO<sub>3</sub>Li/oxyethylene unit = 0.2, P(OEG<sub>4</sub>A):  $M_n = 11300$ , P(OEG<sub>7</sub>A):  $M_n = 10000$ , P(OEG<sub>12</sub>A):  $M_n = 8100$ ].