Supporting Information

Diphenyl Phosphate as an Efficient Cationic Organocatalyst for Controlled/Living Ring-Opening Polymerization of δ -Valerolactone and ε -Caprolactone

Kosuke Makiguchi, Toshifumi Satoh, and Toyoji Kakuchi*

Graduate School of Chemical Sciences and Engineering and Faculty of Engineering, Hokkaido
University, Sapporo, 060-8628, Japan

Hokkaido University.

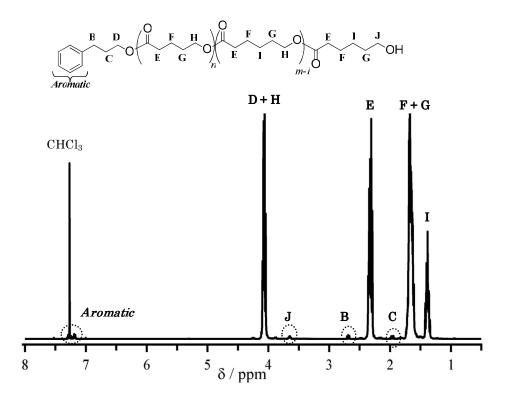


Figure S1. ¹H NMR spectrum of the obtained PVL-*b*-PCL in CDCl₃.

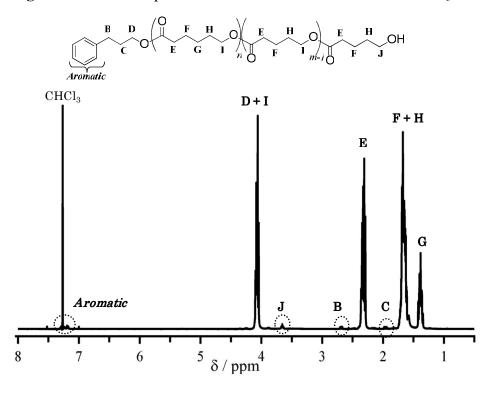


Figure S2. ¹H NMR spectrum of the obtained PCL-*b*-PVL in CDCl₃.

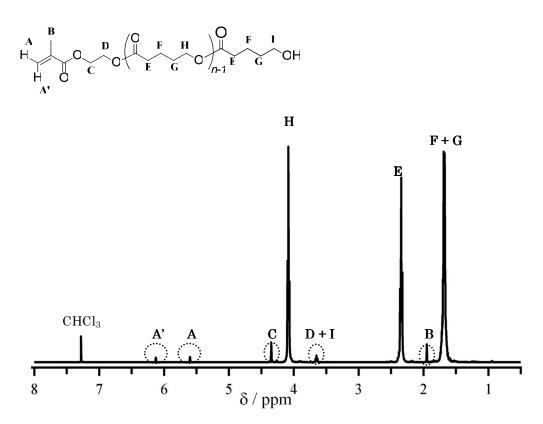


Figure S3. ¹H NMR spectrum of the obtained PVL functionalized by HEMA (Table 2, run 1) in CDCl₃.

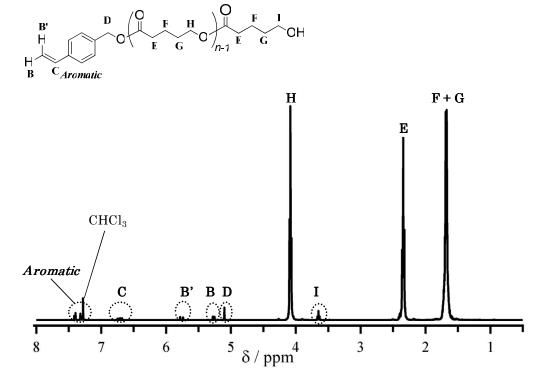


Figure S4. ¹H NMR spectrum of the obtained PVL functionalized by VBA (Table 2, run 2) in CDCl₃.

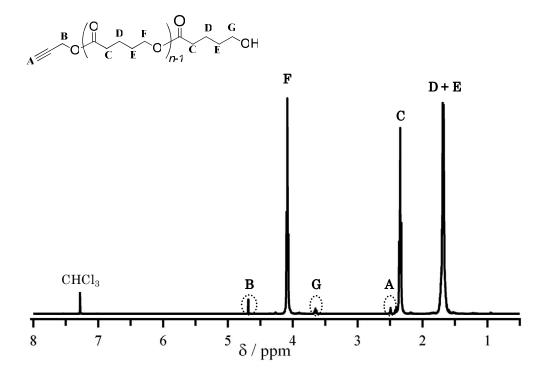
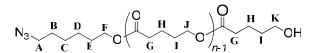


Figure S5. ¹H NMR spectrum of the obtained PVL functionalized by PGA (Table 2, run 3) in CDCl₃.



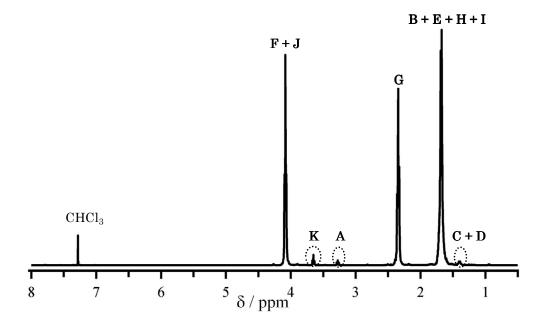
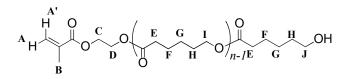


Figure S6. ¹H NMR spectrum of the obtained PVL functionalized by AHA (Table 2, run 4) in CDCl₃.



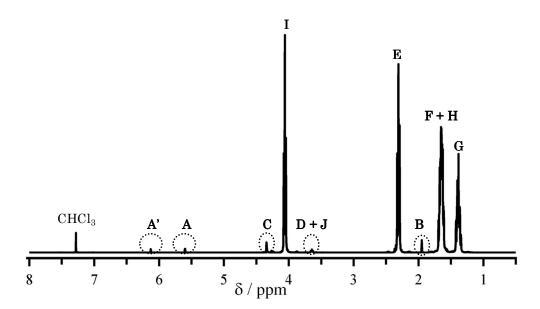


Figure S7. ¹H NMR spectrum of the obtained PCL functionalized by HEMA (Table 2, run 5) in CDCl₃.

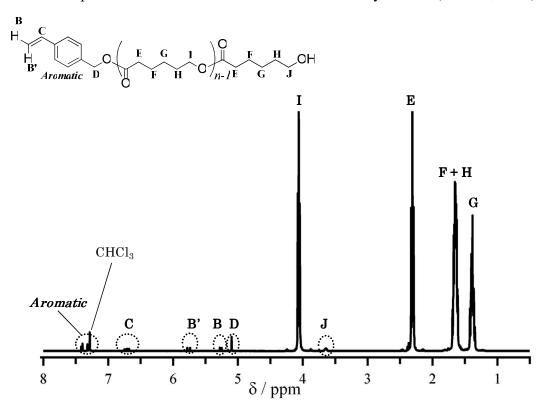
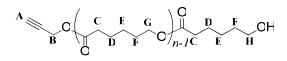


Figure S8. ¹H NMR spectrum of the obtained PCL functionalized by VBA (Table 2, run 6) in CDCl₃.



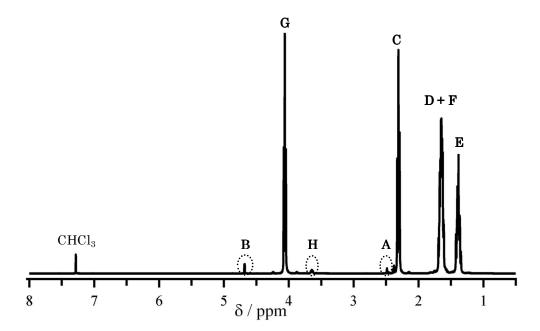


Figure S9. ¹H NMR spectrum of the obtained PCL functionalized by PGA (Table 2, run 7) in CDCl₃.

$$N_3 \xrightarrow{A} C \xrightarrow{E} C \left(\begin{array}{cccc} G & 1 & K \\ \hline & H & J \\ \hline & O \end{array} \right) \xrightarrow{R} C \xrightarrow{H} J C H$$

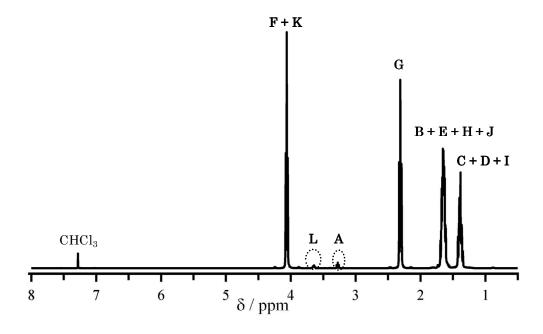


Figure S10. ¹H NMR spectrum of the obtained PCL functionalized by AHA (Table 2, run 8) in CDCl₃.