

Synthesis of Cellulose Acetate-graft-Poly(propylene carbonate) from CO₂-based Polycarbonate and Cellulose Acetate

Shiobara, Kaito

Department of Applied Chemistry, Graduate School of Engineering, Tokyo University of Agriculture and Technology

Iida, Ayano

Department of Applied Chemistry, Graduate School of Engineering, Tokyo University of Agriculture and Technology

Nakano, Koji

Department of Applied Chemistry, Graduate School of Engineering, Tokyo University of Agriculture and Technology

<https://hdl.handle.net/2324/7442748>

出版情報 : Evergreen. 13 (3), pp.1267-1278, 2026-09. Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Japan

バージョン :

権利関係 : Creative Commons Attribution 4.0 International



**Synthesis of Cellulose Acetate-graft-
Poly(propylene carbonate)
from CO₂-based Polycarbonate and Cellulose Acetate**

Kaito Shiobara, Ayano Iida, and Koji Nakano

*Department of Applied Chemistry, Graduate School of Engineering,
Tokyo University of Agriculture and Technology, 2-24-16 Naka-cho,
Koganei, Tokyo 184-8588, Japan*

e-mail: k_nakano@cc.tuat.ac.jp; phone: +81-42-388-7162

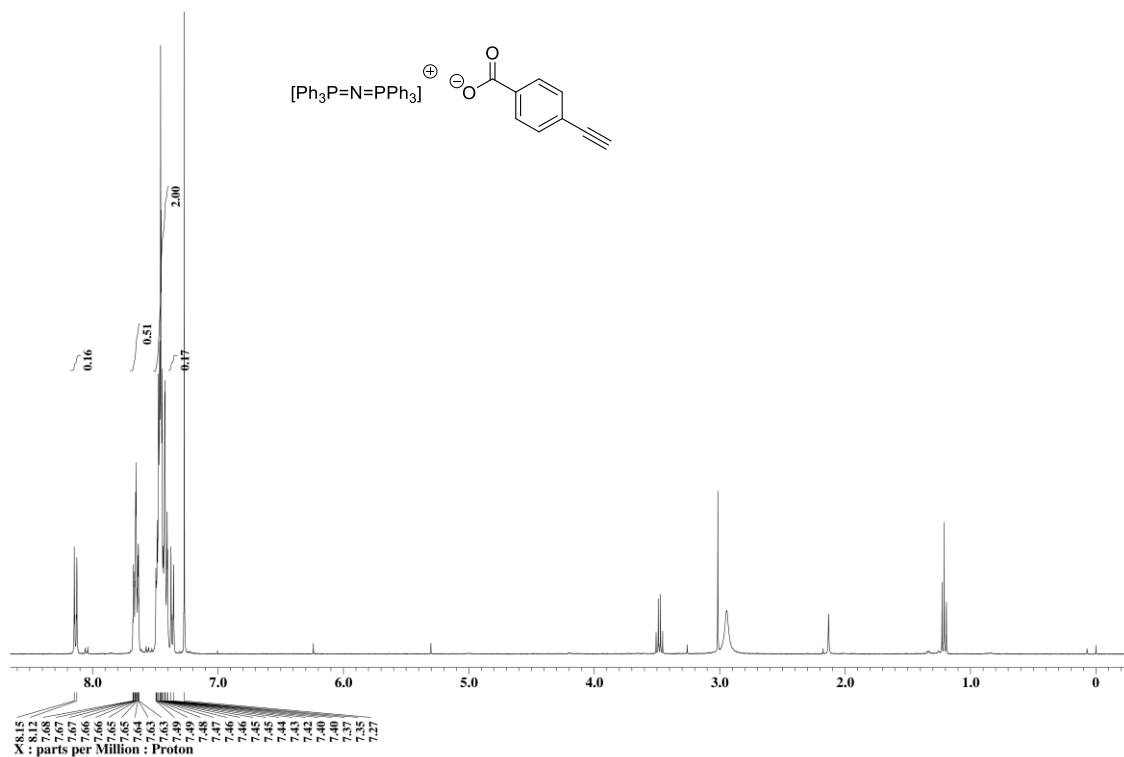


Fig. S1: ^1H NMR spectrum of $[\text{Ph}_3\text{P}=\text{N}=\text{PPh}_3]\text{Z}$ ($\text{Z} = 4\text{-ethynylbenzoate}$) (400 MHz, CDCl_3).

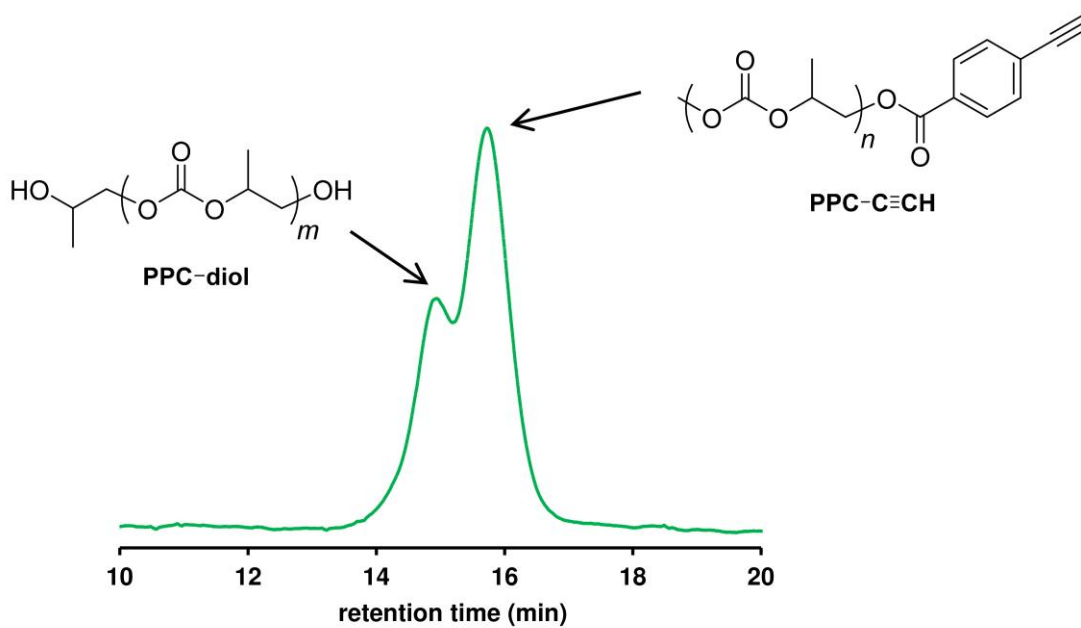


Fig. S2: SEC trace of PPC-C $\equiv$ CH (Table 1, entry 2).

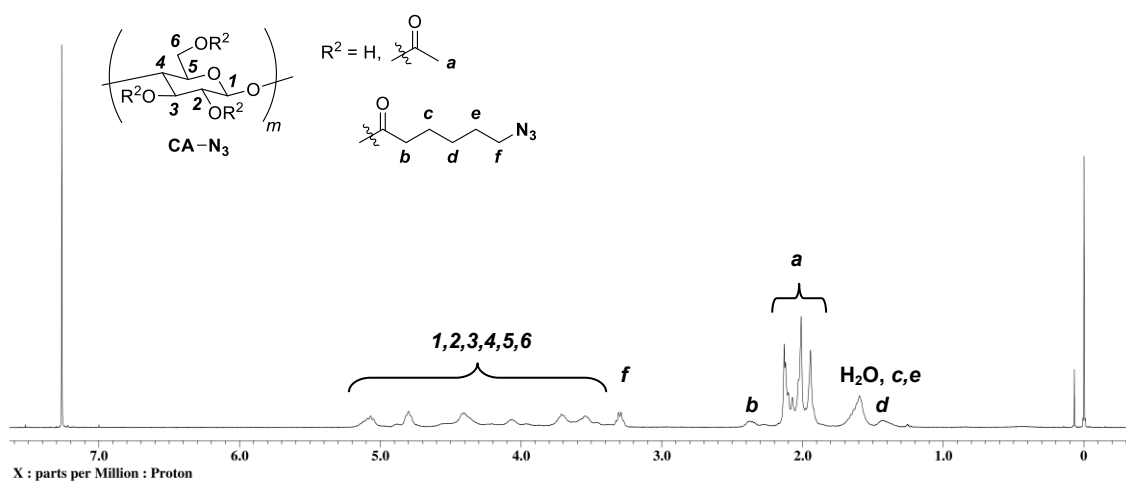


Fig. S3: ^1H NMR spectrum of CA-N_3 (100 MHz, CDCl_3).

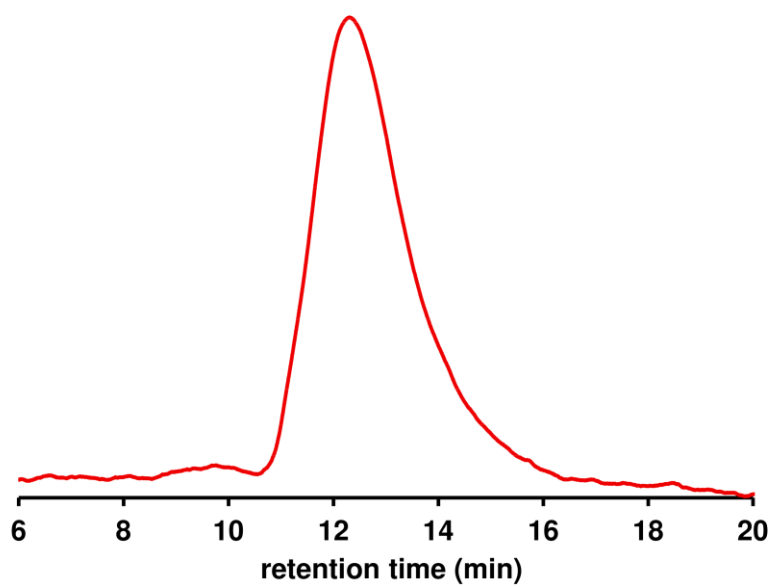


Fig. S4: SEC trace of CA-N_3 (Table 1, entry 2)

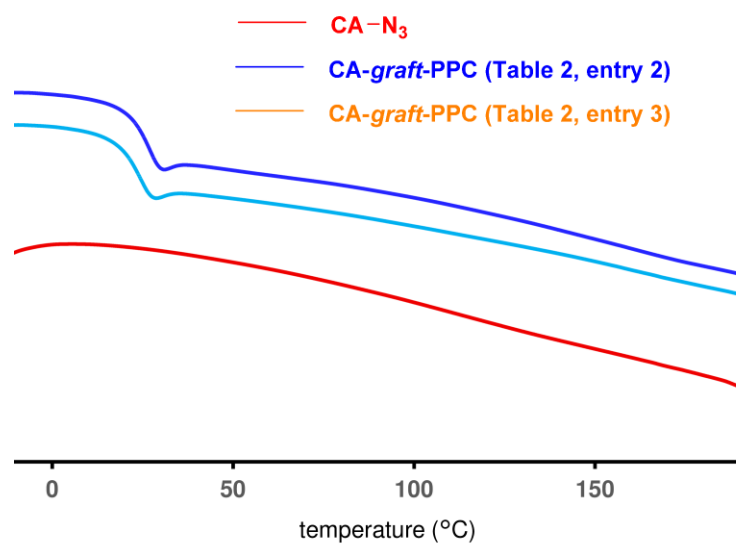


Fig. S5: DSC traces (second heating)

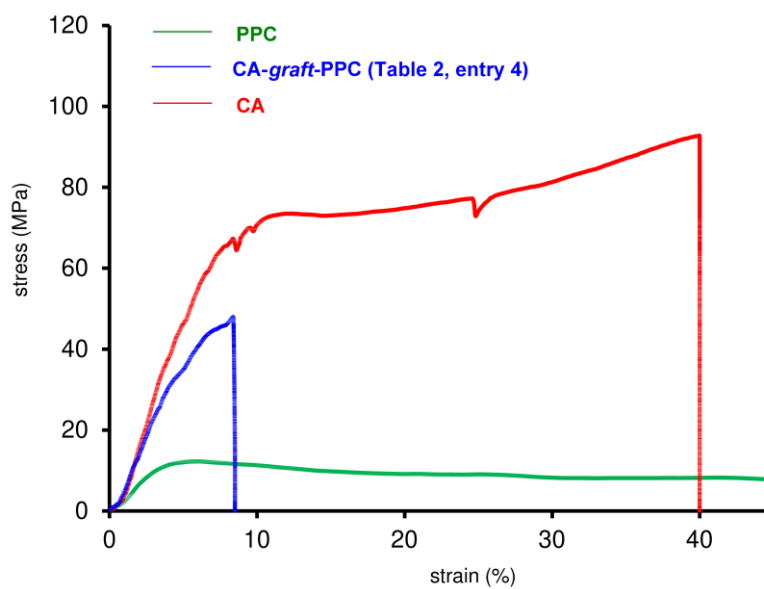


Fig. S6: Strain-stress curves of PPC, CA, and CA-graft-PPC