Supporting Information

Biodegradable and Wood Adhesive Polyesters Based on Lignin-Derived 2-Pyrone-4,6-dicarboxylic Acid

Yijie Jin,[a] *Takuma Araki,*[b] *Naofumi Kamimura,*[c] *Eiji Masai,*[c] *Masaya Nakamura,*[b] *and Tsuyoshi Michinobu*[a,]*

[a] Department of Materials Science and Engineering, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro-ku, Tokyo 152-8552, Japan

[b] Department of Forest Resource Chemistry, Forestry and Forest Products Research Institute, Tsukuba 305-8687, Japan

[c] Department of Materials Science and Bioengineering, Nagaoka University of Technology, Nagaoka 940-2188

*Corresponding author. E-mail: michinobu.t.aa@m.titech.ac.jp

Figure S1. Cypress fractured by shear forces.

Figure S2. Changes of P(PDC3) under different accelerated deterioration treatments.

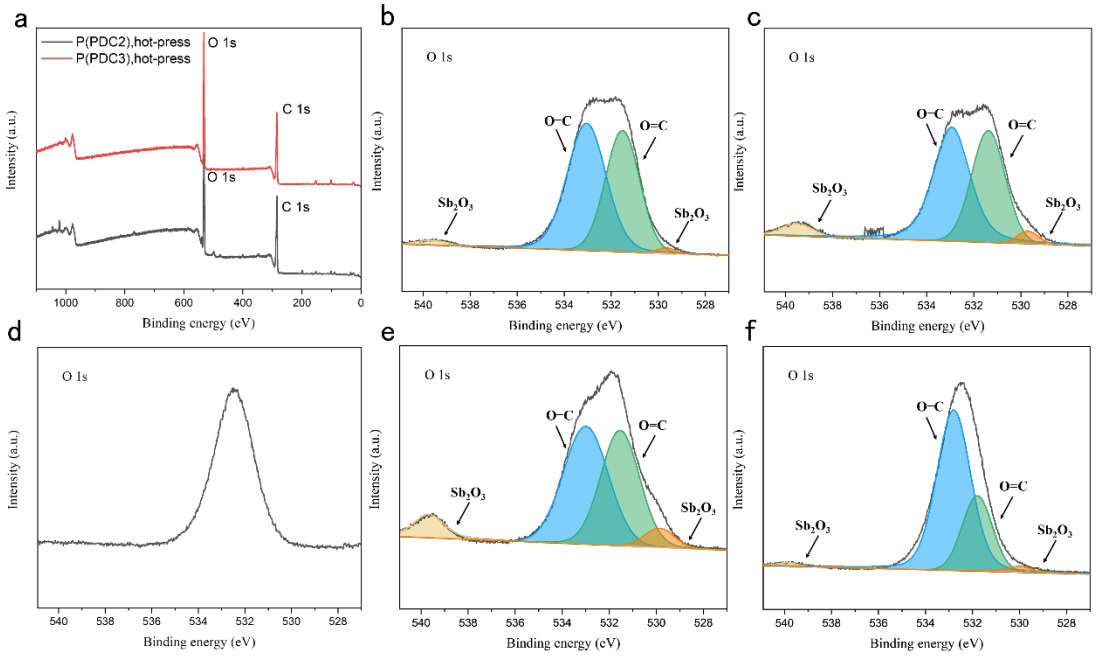

Figure S3. (a) XPS survey spectra of P(PDC2) and P(PDC3) after hot-pressing, (b) O 1s core-level spectrum of P(PDC2), (c) O 1s core-level spectrum of P(PDC3), (d) O 1s core-level spectrum of cypress wood plate, (e) O 1s core-level spectrum of P(PDC2) after hot-pressing, (f) O 1s core-level spectrum of P(PDC3) after hot-pressing.

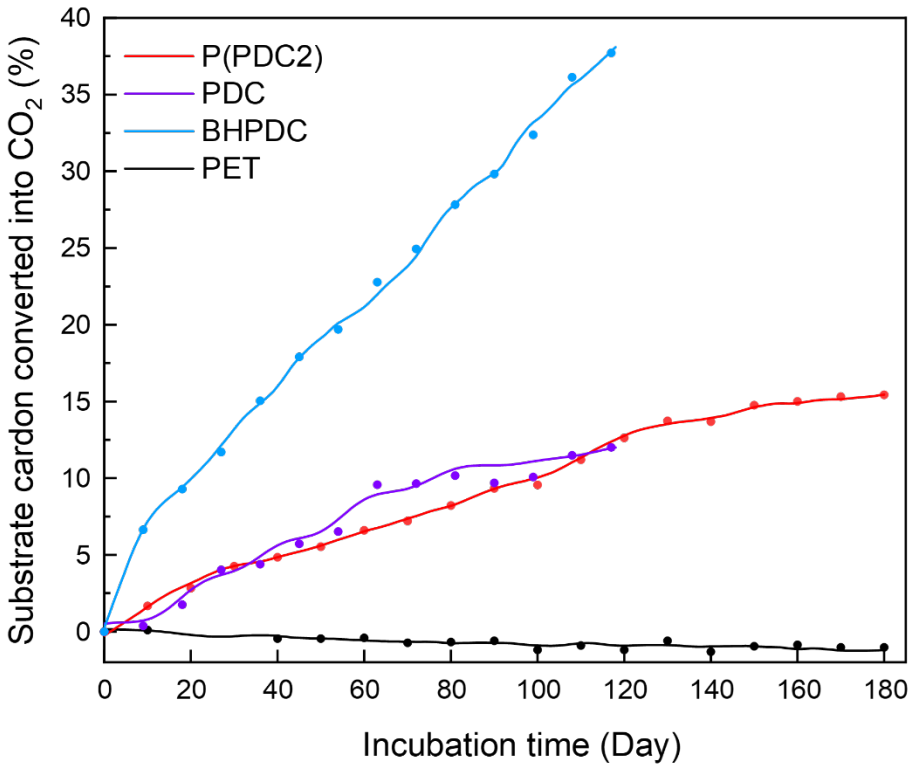

Figure S4. Biodegradation rates of P(PDC2), PDC, BHPDC and PET in pure pond water for 120 days or 180 days. Average plots of two test samples.