Supporting Information

Core–shell fibremats comprising poly(AM/DAAM)/ADH nanofibre core and nylon6 shell layer is an attractive immobilization platform for constructing immobilised enzymes

Taira Ishiguro,[a] Akiko Obata,[a] Kenji Nagata,[a] Toshihiro Kasuga[a] and Toshihisa Mizuno*[a,b]

[a]Department of Life Science and Applied Chemistry, Graduate School of Engineering, Nagoya Institute of Technology, Gokiso-cho, Showa-ku, Nagoya, Aichi 466-8555, Japan.
[b]Department of Nanopharmaceutical Sciences, Graduate School of Engineering, Nagoya Institute of Technology, Gokiso-cho Showa-ku, Nagoya, Aichi 466-8555, Japan.

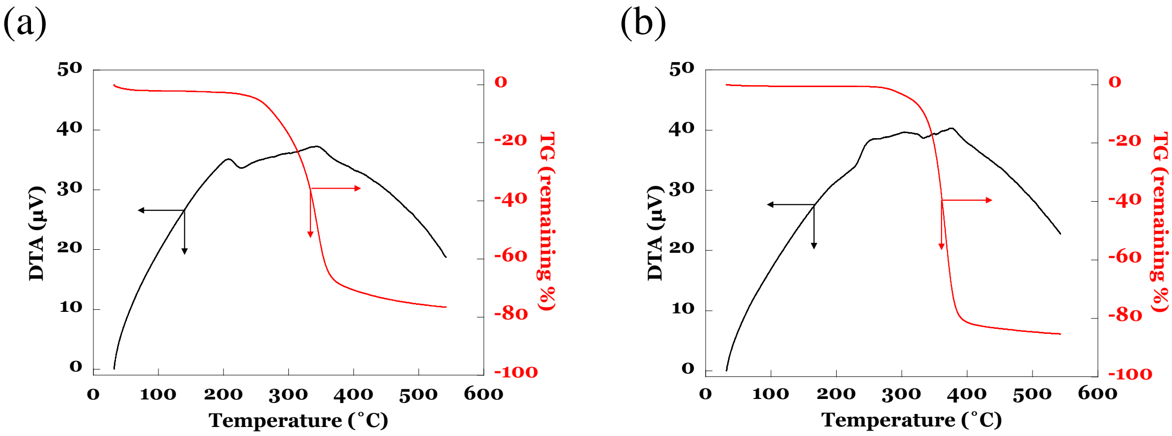

Figure S1. TG and DTA analyses (temperature rising rate 10˚C min^{-1}, N_2 flow rate 200 mL min^{-1}) from 30 ˚C to 550 ˚C of (a) the lactase-encapsulated poly(AM/DAAM)/ADH-nylon6 core-shell fibermat and (b) the nylon 6 powder.

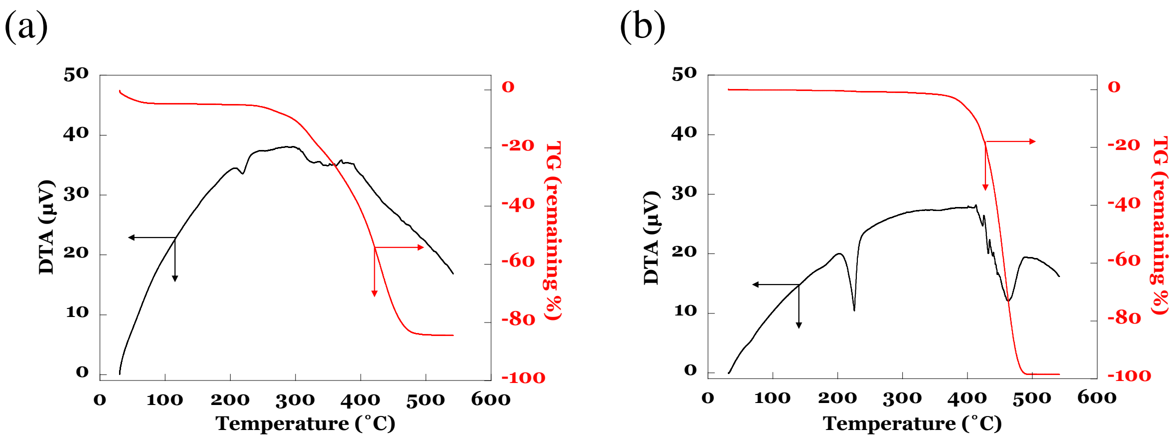

Figure S2. TG and DTA analyses (temperature rising rate 10˚C min^{-1}, N_2 flow rate 200 mL min^{-1}) from 30 ˚C to 550 ˚C of (a) the lactase-encapsulated poly(AM/DAAM)/ADH-Ac-Cel core-shell fibermat and (b) the Ac-Cel powder.

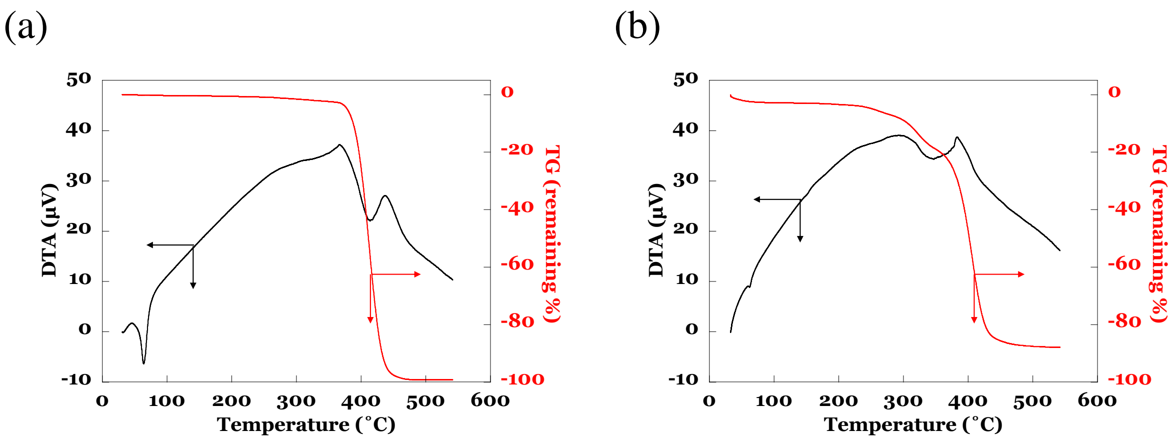

Figure S3. TG and DTA analyses (temperature rising rate 10˚C min^{-1}, N_2 flow rate 200 mL min^{-1}) from 30 ˚C to 550 ˚C of (a) the lactase-encapsulated poly(AM/DAAM)/ADH-PCL core-shell fibermat and (b) the PCL powder.

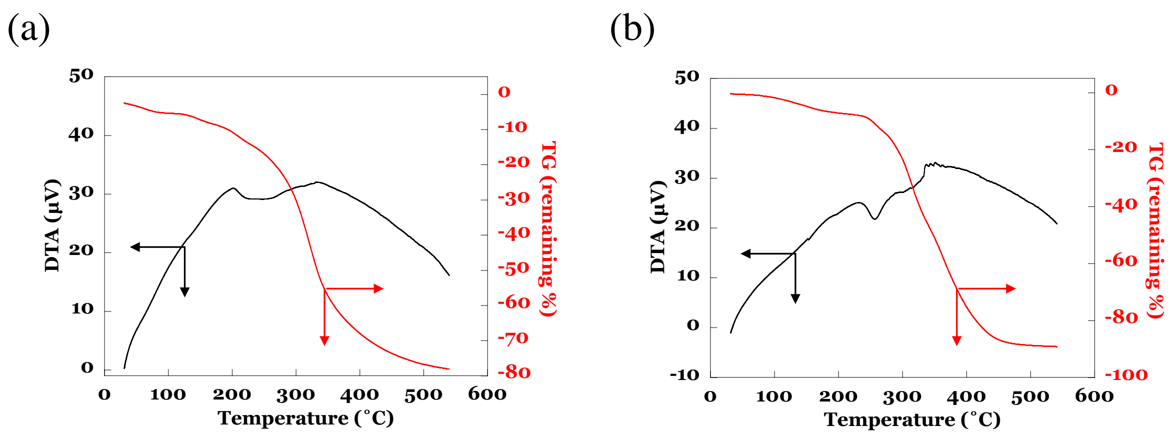

Figure S4. TG and DTA analyses (temperature rising rate 10˚C min^{-1}, N_2 flow rate 200 mL min^{-1}) from 30 ˚C to 550 ˚C of (a) lactase powder and (b) the freeze-dried poly(AM/DAAM)/ADH hydrogels.

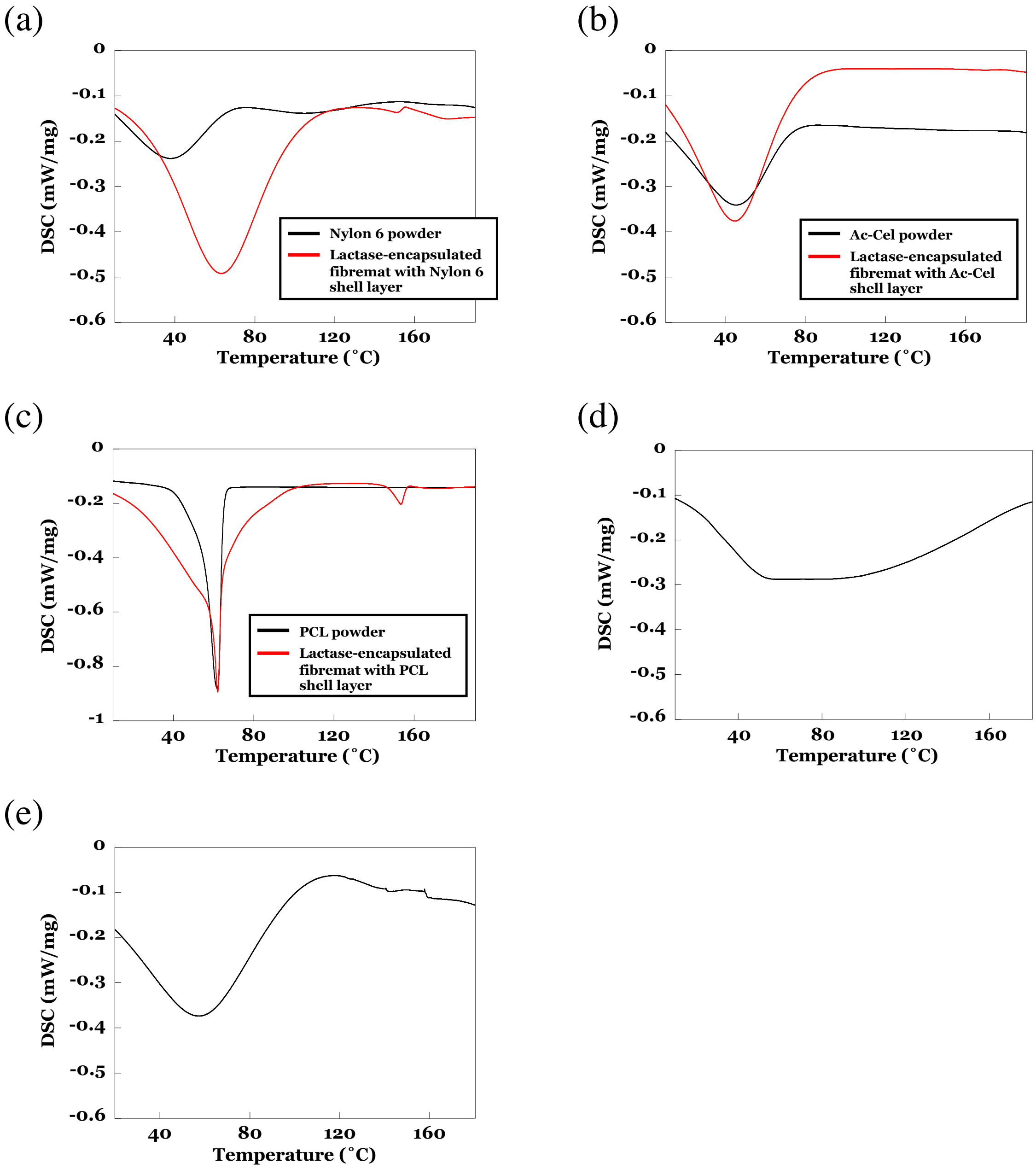

Figure S5. Differential scanning calorimetry **(**DSC) data of the lactase-encapsulated core-shell fibermats, having shell layers of (a) nylon6, (b) Ac-Cel, or (c) PCL, (d) the freeze-dried poly(AM/DAAM)/ADH hydrogels and (e) lactase powder. As a reference, the DSC data of nylon 6 powder, Ac-Cel powder, and PCL powder are also summarized in each graph, respectively. The samples were heated at 5 °C min^{-1} under N_2 gas constant flowing at 30 mL min^{-1}.