

Supplementary Information

Formation and regulation of fullerene-incorporation in liposomes under the phase transition temperature

Atsushi Ikeda,* Yoshihiko Kawai, Jun-ichi Kikuchi, Motofusa Akiyama, Eiji Nakata, Yoshihiro Uto and Hitoshi Hori

Graduate School of Materials Science, Nara Institute of Science and Technology, 8916-5 Takayama, Ikoma, Nara 630-0192, Japan

Department of Life System, Institute of Technology and Science, Graduate School, The University of Tokushima, Minamijosanjimacho 2, Tokushima 770-8506, Japan

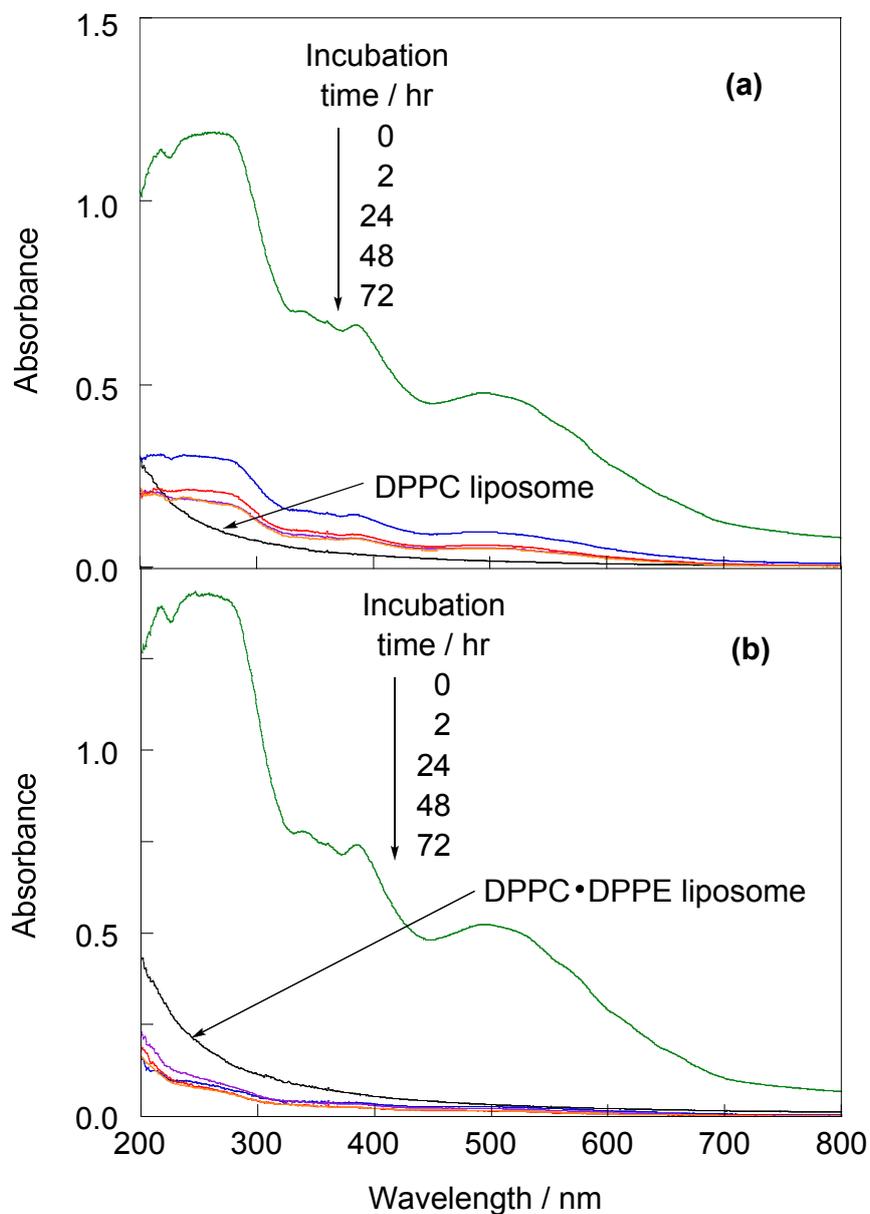


Fig. S1 UV-vis absorption spectra of LMIC₇₀ of (a) DPPC- and (b) DPPC•DPPE-liposomes at 10 mol% C₇₀ prepared by the exchange reaction at 30 °C after the incubation times of 0 (green line), 2 (blue line), 24 (purple line), 48 (red line) and 72 hr (orange line).

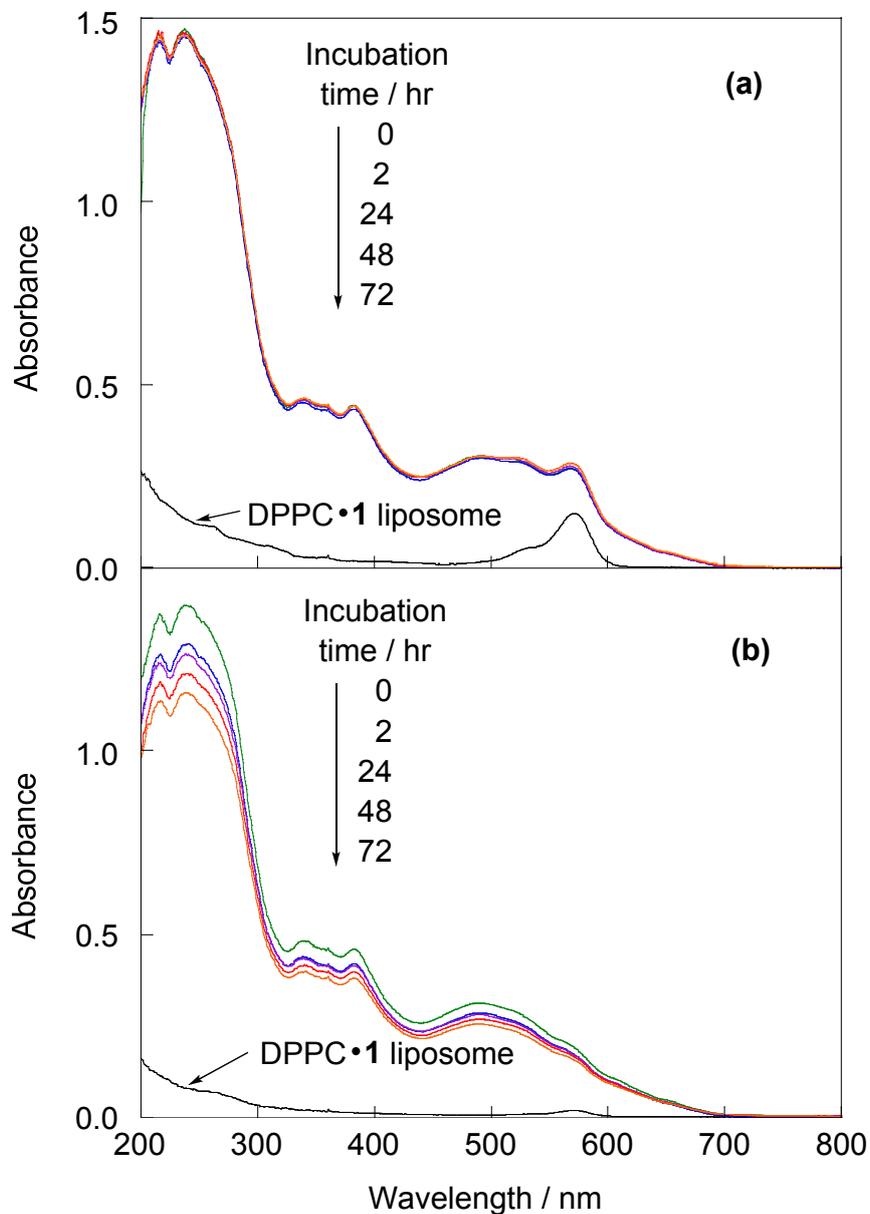


Fig. S2 UV-vis absorption spectra of DPPC•1-liposome (black line) and LMIC₇₀ of DPPC•1-liposomes at (a) 2.5 mol% and (b) 0.25 mol% **1** prepared by the exchange reaction at 30 °C after incubation times of 0 (green line), 2 (blue line), 24 (purple line), 48 (red line) and 72 hr (orange line).

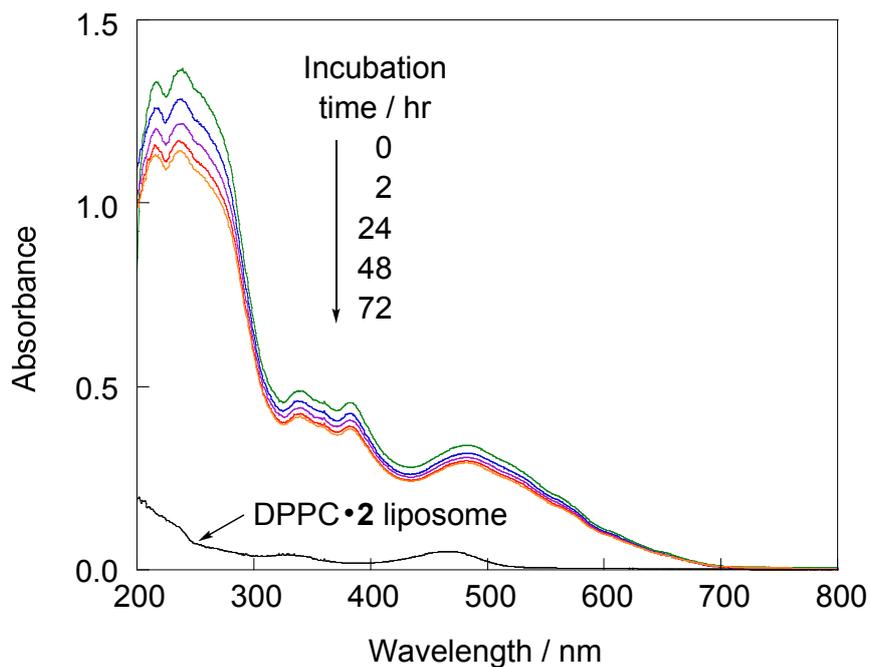


Fig. S3 UV-vis absorption spectra of DPPC•2-liposome (black line) and LMIC₇₀ of DPPC•2-liposomes at 2.5 mol% **2** prepared by the exchange reaction at 30 °C after incubation times of 0 (green line), 2 (blue line), 24 (purple line), 48 (red line) and 72 hr (orange line).

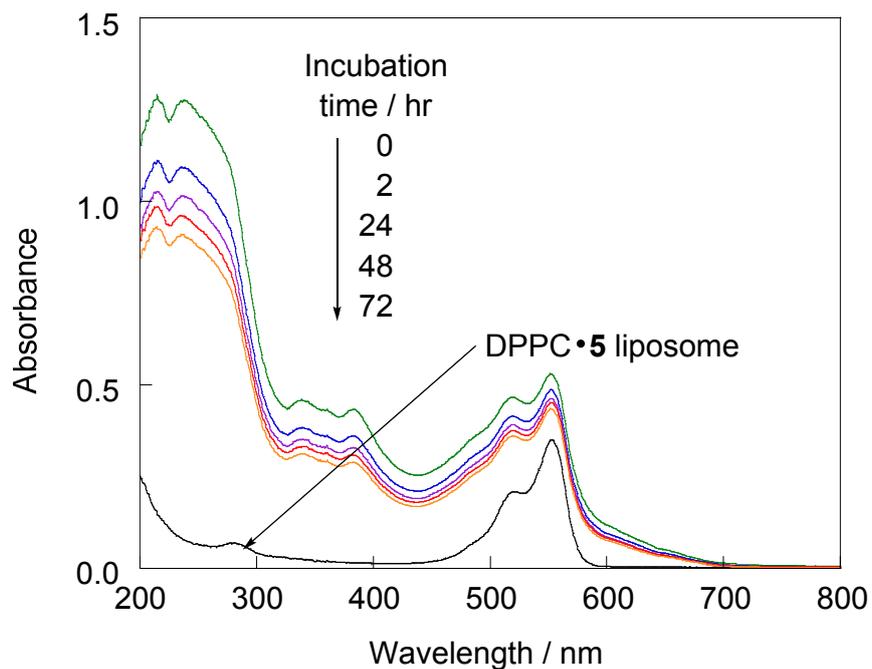


Fig. S4 UV-vis absorption spectra of DPPC•5-liposome (black line) and LMIC₇₀ of DPPC•5-liposomes at 2.5 mol% **5** prepared by the exchange reaction at 30 °C after incubation times of 0 (green line), 2 (blue line), 24 (purple line), 48 (red line) and 72 hr (orange line).

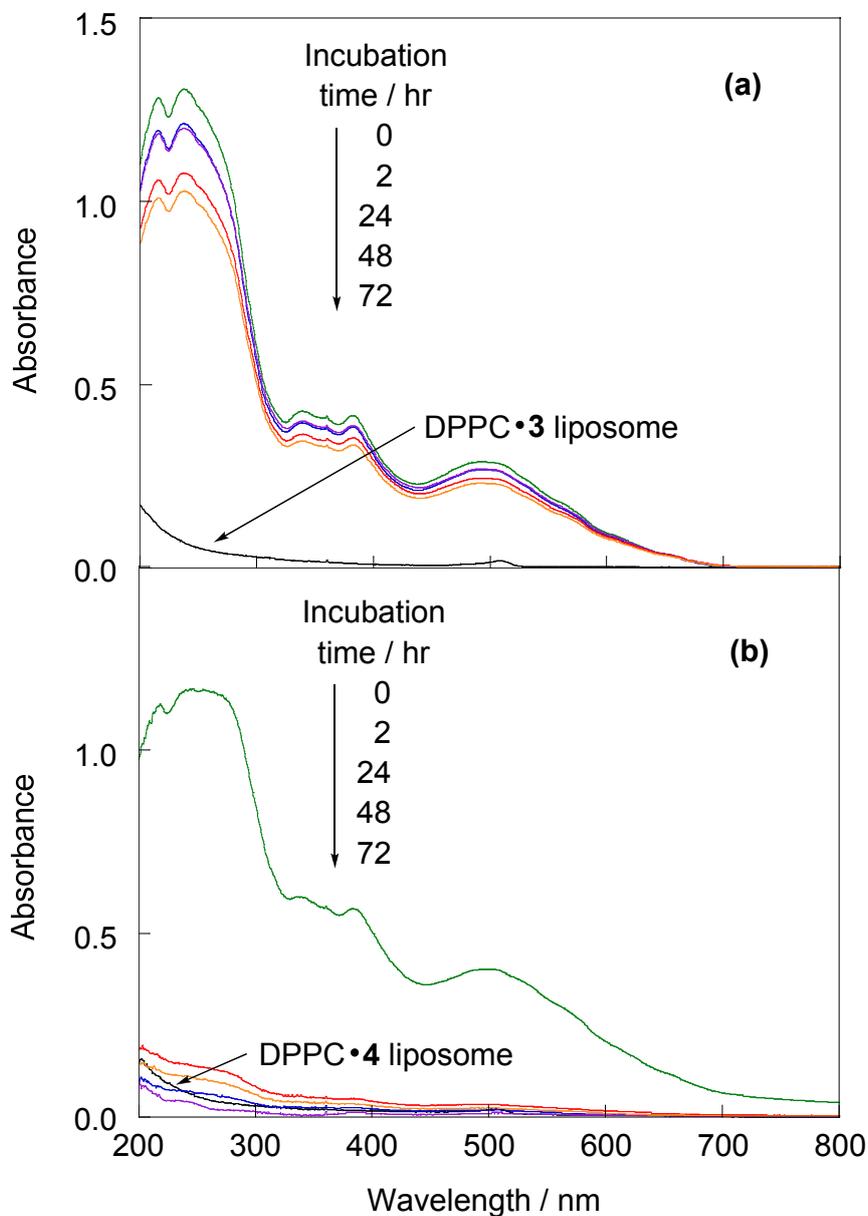


Fig. S5 UV-vis absorption spectra of DPPC•3 or DPPC•4-liposomes (black line) and LMIC₇₀ of DPPC•3 or DPPC•4-liposomes at (a) 0.25 mol% 3 and (b) 0.25 mol% 4 prepared by the exchange reaction at 30 °C after incubation times of 0 (green line), 2 (blue line), 24 (purple line), 48 (red line) and 72 hr (orange line).

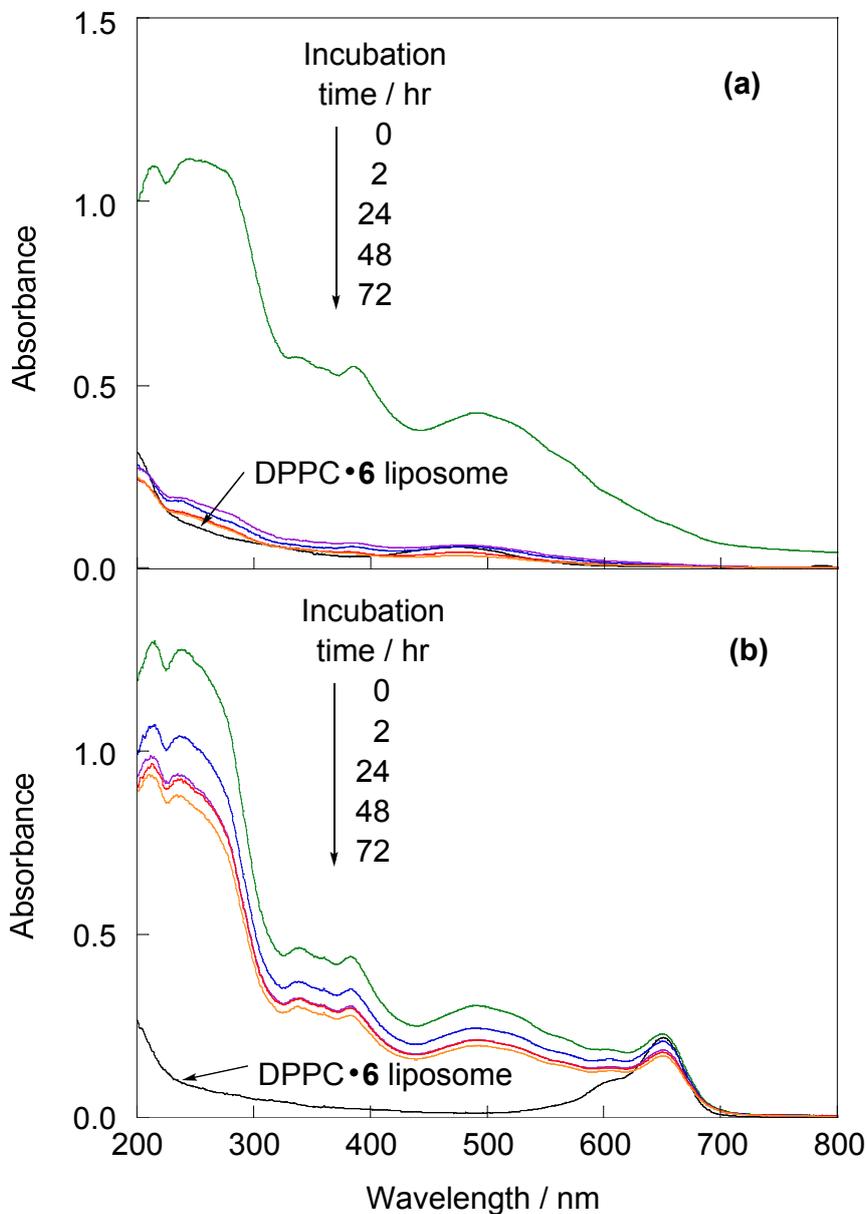


Fig. S6 UV-vis absorption spectra of DPPC•6-liposomes (black line) and LMIC₇₀ of DPPC•6-liposome with 2.5 mol% **6** at (a) pH 6.6 (blue line) and (b) 2.4 (red line) prepared by the exchange reaction at 30 °C after incubation times of 0 (green line), 2 (blue line), 24 (purple line), 48 (red line) and 72 hr (orange line).

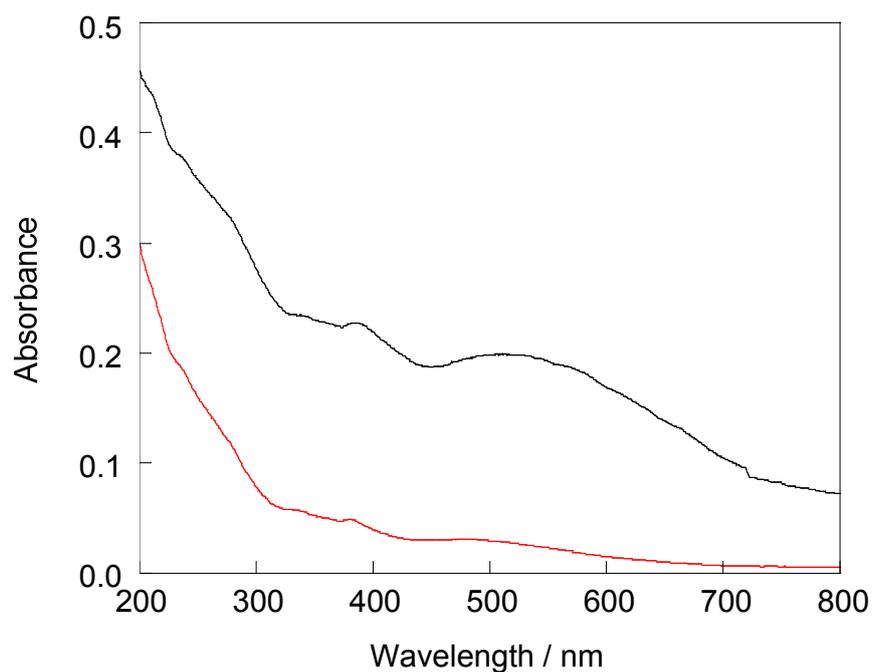


Fig. S7 UV-vis absorption spectra of LMIC₇₀ of DPPC-liposomes prepared by the exchange reaction at 30 °C after incubation times of 0 (black line) and 2 hr (red line).