Stereocomplexation, thermal and mechanical properties of conetworks composed of star-shaped L-lactide, D-lactide and $\varepsilon$-caprolactone oligomers utilizing sugar alcohols as core molecules

Kaito Sugane, Hayato Takahashi, Toshiaki Shimasaki, Naozumi Teramoto and Mitsuhiro Shibata*


Figure S1. $500 \mathrm{MHz}{ }^{1} \mathrm{H}-\mathrm{NMR}$ spectrum of H 4 SLLAO in $\mathrm{CDCl}_{3}$.


Figure S2. $500 \mathrm{MHz}{ }^{1} \mathrm{H}-\mathrm{NMR}$ spectrum of H 4 SDLAO in $\mathrm{CDCl}_{3}$.


Figure S3. $400 \mathrm{MHz}{ }^{1} \mathrm{H}-\mathrm{NMR}$ spectrum of H 6 SLLAO in $\mathrm{CDCl}_{3}$.


Figure S4. $400 \mathrm{MHz}{ }^{1} \mathrm{H}-\mathrm{NMR}$ spectrum of $\mathrm{H} 6 \mathrm{SDLAO}^{2} \mathrm{CDCl}_{3}$.


Figure S5. FT-IR spectra of H4SLLAO, H4SDLAO, H3SCLO, HDI, SPN-4LLAO and SPN-4scLAO/3CLOs (100/0, 75/25, 50/50, 25/75 and 0/100).


Figure S6. FT-IR spectra of H6SLLAO, H6SDLAO, H3SCLO, HDI, SPN-6LLAO and SPN-6scLAO/3CLOs (100/0, 75/25, 50/50, 25/75 and 0/100).


Figure S7. XRD patterns of H4SLLAO, H4SDLAO, H3SCLO, SPN-4LLAO and SPN-4scLAO/3CLOs (100/0, 75/25, 50/50, 25/75 and 0/100).


Figure S8. XRD patterns of H6SLLAO, H6SDLAO, H3SCLO, SPN-6LLAO and SPN-6scLAO/3CLOs (100/0, 75/25, 50/50, 25/75 and 0/100).


Figure S9. The first and second heating DSC curves for H5SLLAO, H5SDLAO, H3SCLO, SPN-5LLAO and SPN-5scLAO/3CLOs (100/0, 75/25, 50/50, 25/75 and 0/100).


Figure S10. Polarized optical microscope images of the SPN-4scLAO/CLOs $100 / 0,75 / 25,50 / 50$ and $25 / 75$ held at a specified temperature for 10 min after melted at $220^{\circ} \mathrm{C}$.


Figure S11. Polarized optical microscope images of the SPN-6scLAO/CLOs 100/0, $75 / 25,50 / 50$ and $25 / 75$ held at a specified temperature for 10 min after melted at $220^{\circ} \mathrm{C}$.


Figure S12. FE-SEM images of the fractured surfaces of SPN- $m$ scLAO/3CLO 75/25-25/75 conetworks ( $m=4,5$ and 6 ).

