Two-Way Reversible Shape Memory in

a Semicrystalline Network

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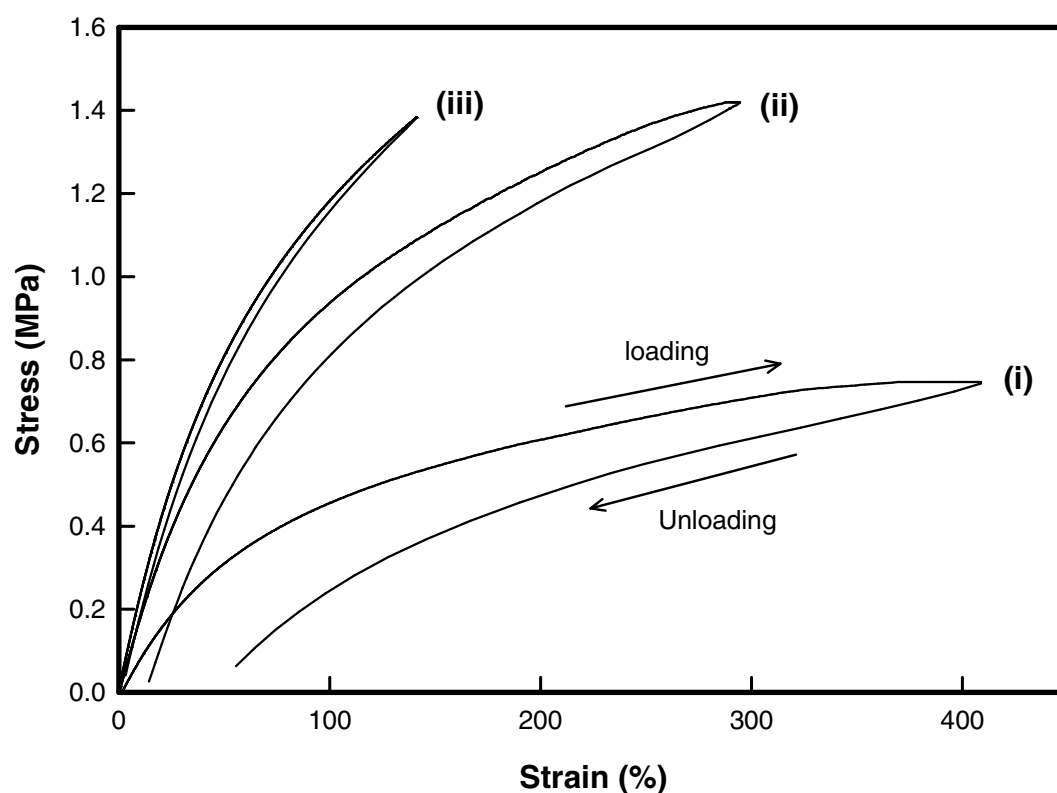
Supplementary Data

Figure S1. Loading and unloading curves in uniaxial tension for PCOs cured with different DCP contents at a constant temperature above Tm (60 ºC) : i) 1.0 wt%, (ii) 1.5 wt%, (iii) 2.0 wt-%.
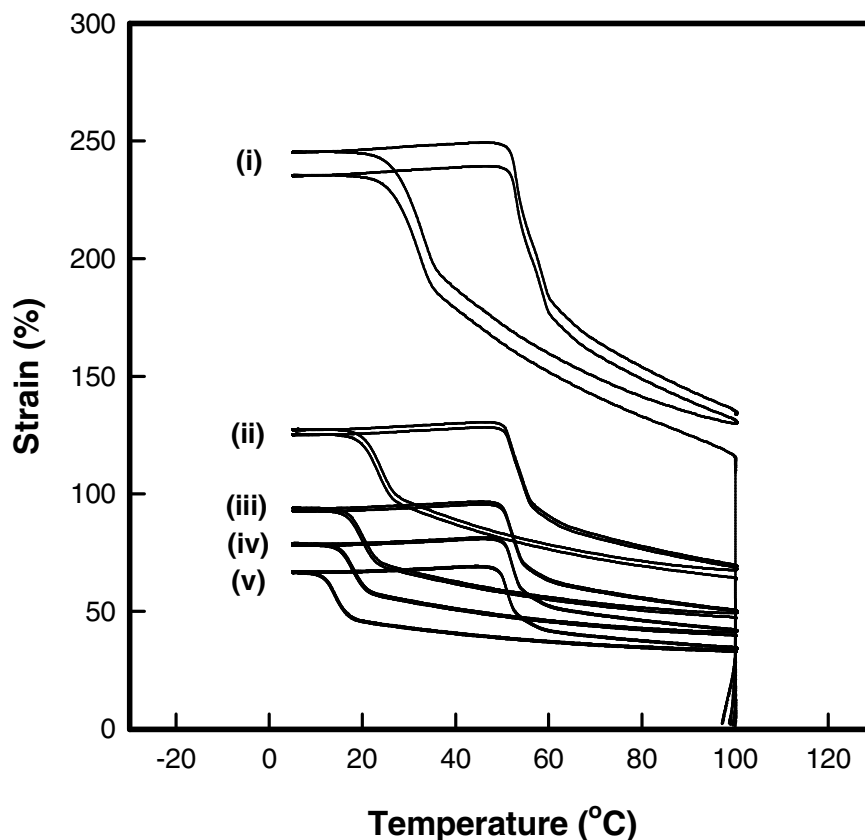
Figure S2. Total tensile strain during two-way shape memory response of PCOs cured with different DCP contents: (i) 1.0 wt%, (ii) 1.25 wt%, (iii) 1.5 wt-%, (iv) 1.75 wt-%, and (v) 2.0 wt-% under a constant stress (600 kPa). The samples were elongated at high temperature (100 °C) under 600 kPa. The deformation step is followed by a cooling process (2 °C/min), inducing an increase in strain. Then, the increased strain decreases by a heating process (2 °C/min) to high temperature. The stress (600 kPa) was held constant during the cooling and heating process.
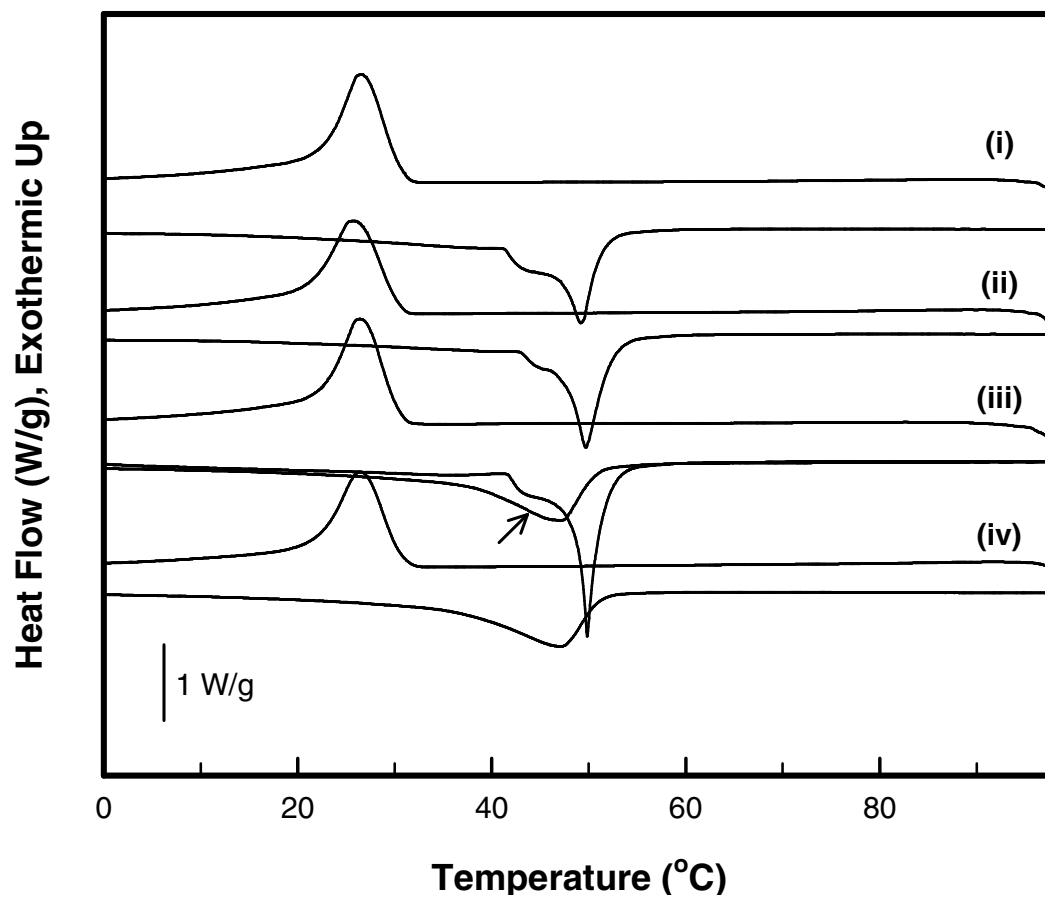
Figure S3. First heating and cooling DSC thermograms of the stretched PCOsunder different loads: (i) 500 kPa, (ii) 600kPa, (iii) 700 kPa and first cooling and second heating traces of (iv) unstretched PCO. The arrow represents the second heating trace.
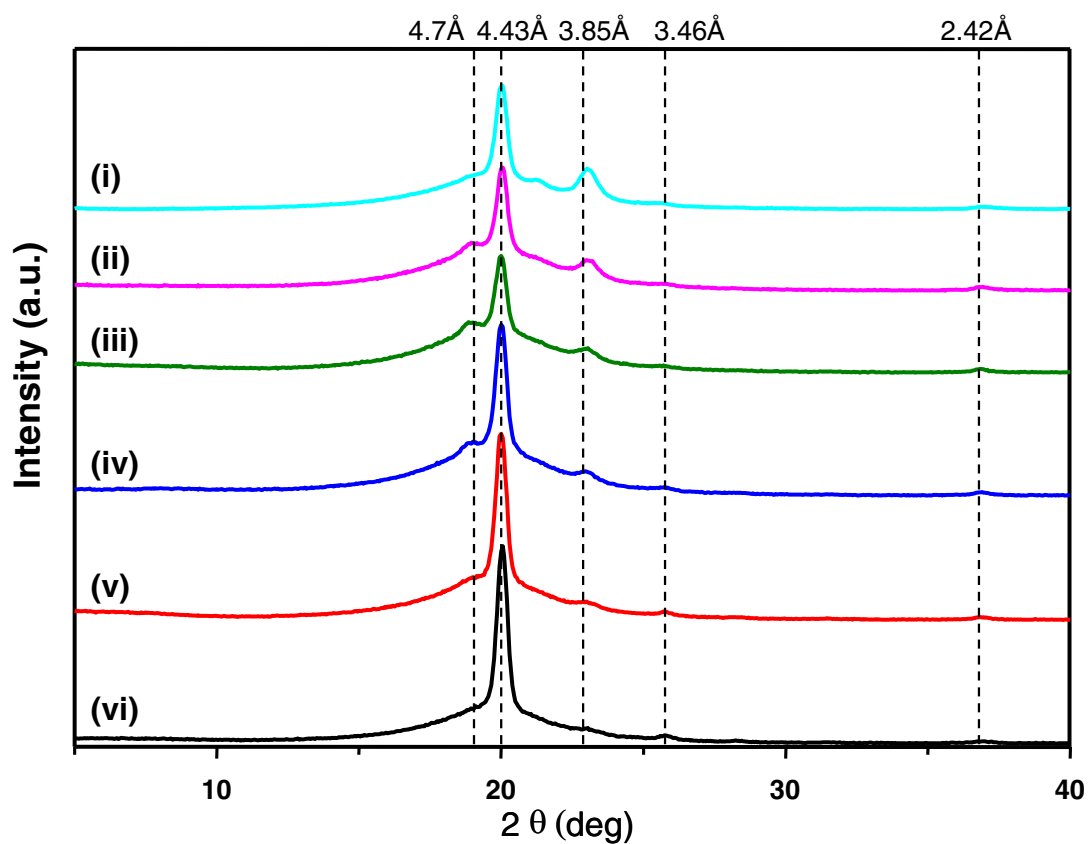
Figure S4.   1D-WAXD equatorial intensity profiles of the PCO-D1.5 sample as a function of the degree of the applied stress: (i) 0 kPa, (ii) 300 kPa, (iii) 400 kPa, (iv) 500 kPa, (v) 600 KPa and (vi) 700 kPa.