

Electronic Supplementary Information

Shape programming and photoactuation of interpenetrating polymer networks containing azobenzene moieties

T. Ube, K. Naito and T. Ikeda

Supplementary Figures

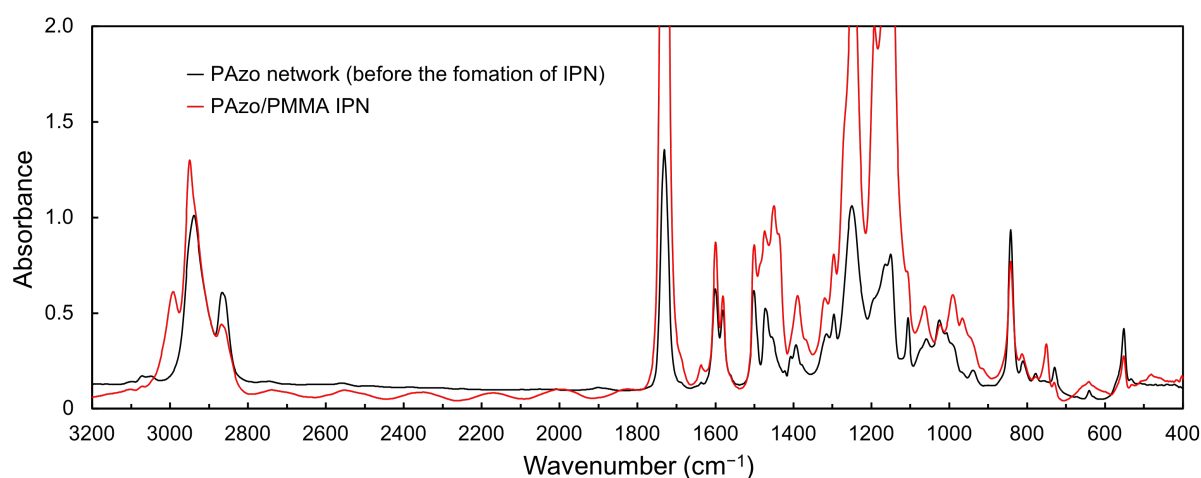


Fig. S1 FTIR spectra of PAzo network (before the formation of IPN) and IPN films in transmission mode.

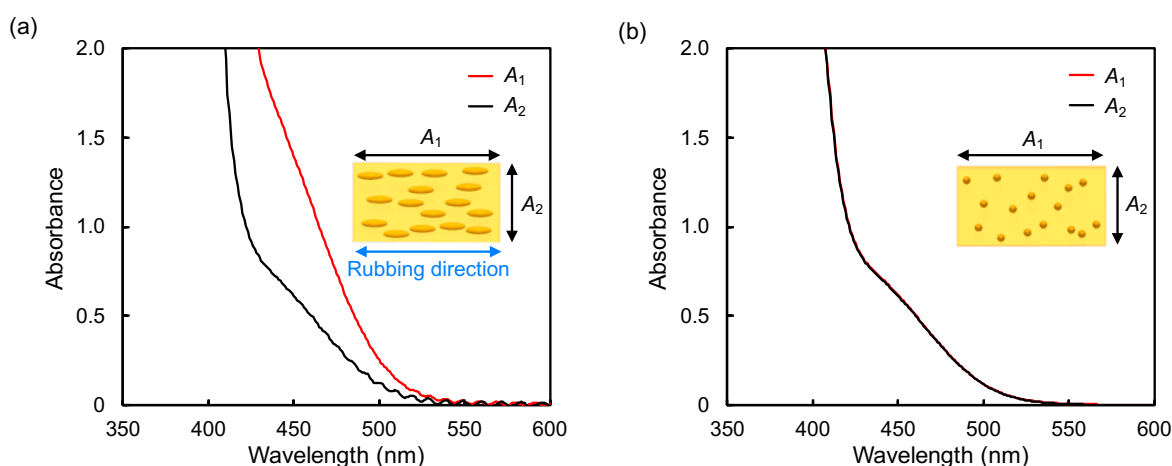


Fig. S2 Polarized absorption spectra of IPN films with (a) in-plane uniaxial and (b) homeotropic alignment of mesogens. Orientational order parameter, S , of azobenzene moieties was evaluated as $S = (A_1 - A_2) / (A_1 + 2A_2)$, where A_1 and A_2 represent absorbance obtained with incident light polarized parallel and perpendicular to the alignment direction, respectively: (a) $S = 0.30$, and (b) $S = 0$. Thickness of the films: 8 μm .

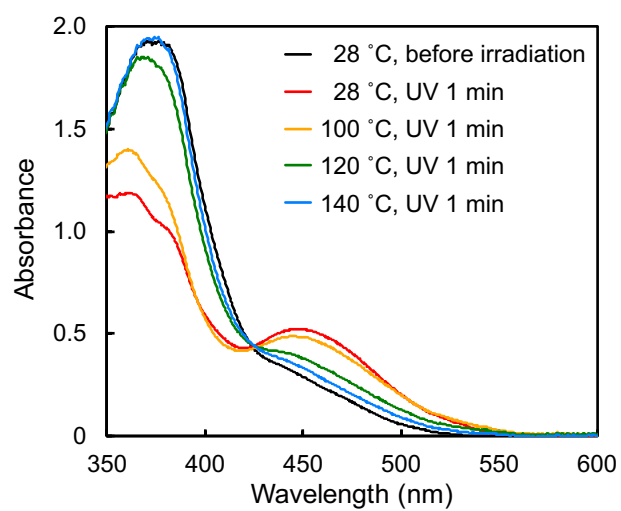


Fig. S3 Real-time absorption spectra of a PAzo/PMMA IPN film under irradiation with UV light (365 nm, 15 mW cm⁻²) at various temperatures. Thickness of the film: 3 μm.