Supplementary material (ESI) for Journal of Materials Chemistry

Supplementary data

Optical Anisotropy in Polymer – Clay Nanocomposite Hydrogel and Its Change on Uniaxial Deformation

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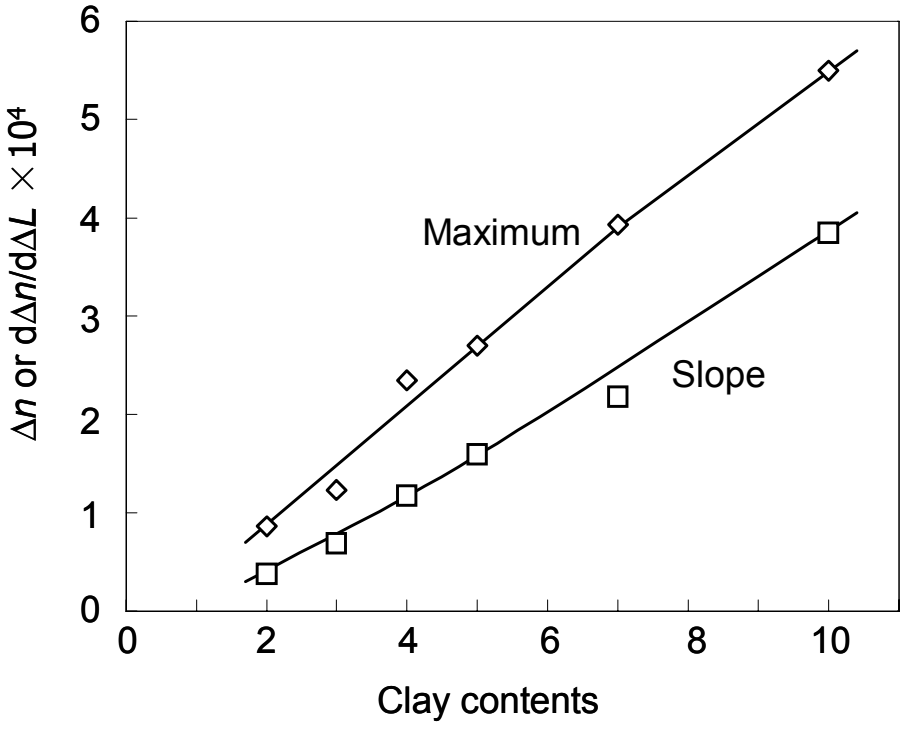
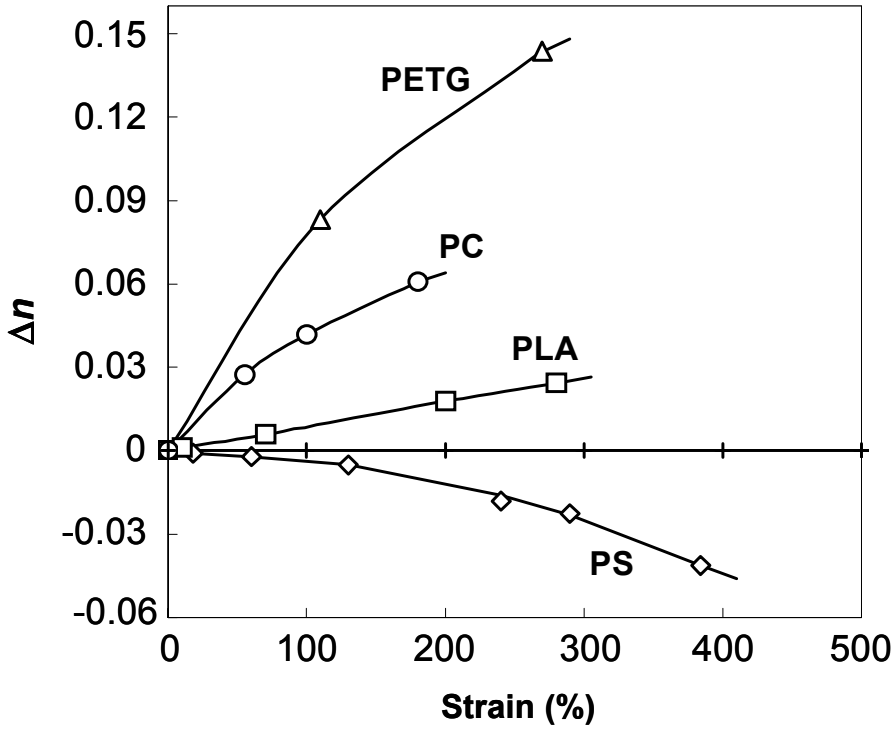
Supporting 1 Maximum Δn_{NC} and slops of Δn_{NC} in the initial stage of elongation as a function of clay contents.



Supporting 2 Birefringence (Δn) of stretched polymers as a function of elongation ratio for glycol-modified polyethylene terephtalate (PETG), Polycarbonate (PC), Poly(L-lactic acid) (PLA), Polystyrene (PS). PETG (PETG 6763, Eastman Chemical), PC (Iupilon S-2000, Mistubishi Chem. Ind., Japan), PLA (Mw=700000, Wako Pure Chem. Ind., Japan), and PS (DIC-PS GR-3500, DIC *Ind*., Japan).



Supporting 3 Thickness (L_t: closed marks) and width (L_w: open marks) of (a) NC2, (b) NC5, and (c) NC10 gels as a function of strain. Thickness (L_t/L_{t0}) and width (L_w/L_{w0}) were normalized by initial values, respectively. The dashed line was calculation curve by assuming affin deformation.