

Crystallization and degradation behaviour of multiblock copolyester blends in Langmuir monolayers

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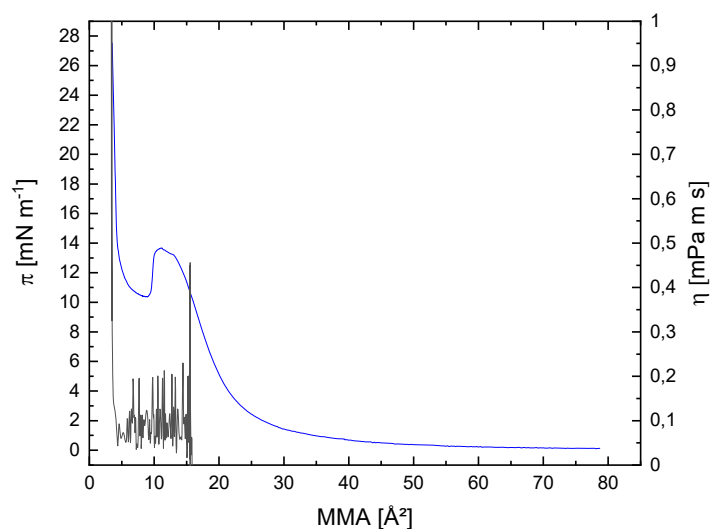


Figure S1. Surface pressure π – mean molecular area (MMA) isotherm (blue) and complex interfacial viscosity η (black) as function of MMA per repeating unit in compression of a PDLA-20 (poly(D-lactide) $M_n = 2.3 \text{ kg} \cdot \text{mol}^{-1}$ $\bar{D} = 1.13$) monolayer at room temperature and constant compression rate $10 \text{ mm} \cdot \text{min}^{-1}$.

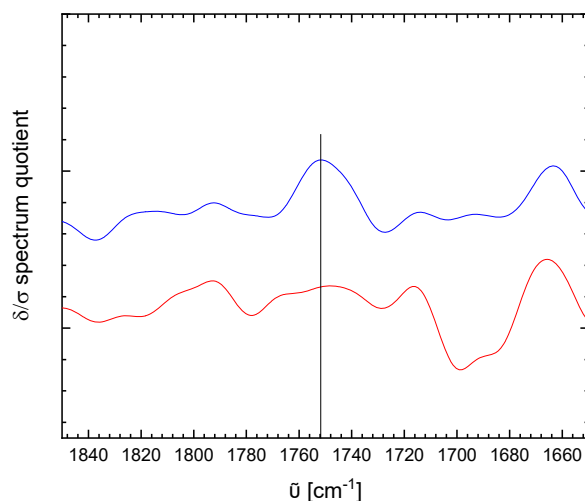


Figure S2. Polarization-modulated infrared reflection–absorption spectroscopy (PM-IRRAS) spectra of PL24 (Corbion, poly(L-lactide) $M_n = 129 \text{ kg} \cdot \text{mol}^{-1}$ $\bar{D} = 1.41$) monolayer δ/σ ($\tilde{\nu}$), where $\tilde{\nu}$ is the wave number, σ is the spectra of the bare air–water interface, and δ is the difference between σ and differential reflectivity of the spectrum calculated as the ratio of the collected difference between p- and s-polarized light to their sum intensity. Red – of an uncompressed layer, blue – at surface pressure $\pi = 5 \text{ mN} \cdot \text{m}^{-1}$.

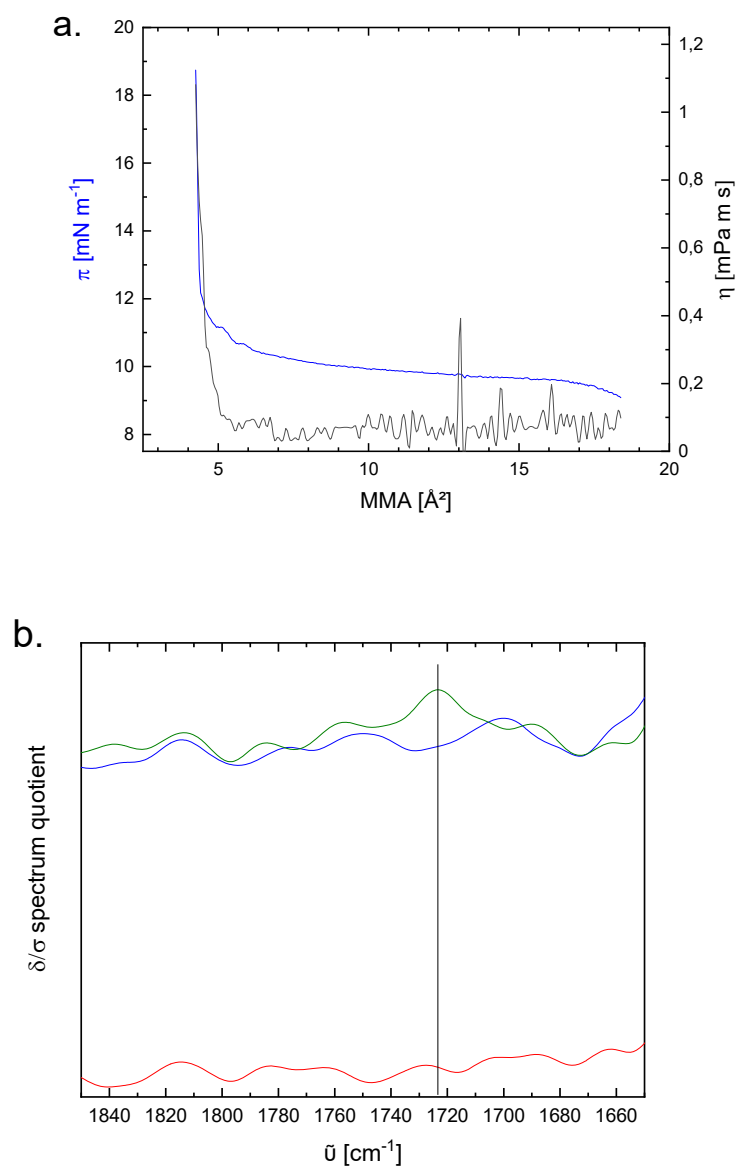


Figure S3. (a) Compression isotherm $\pi(\text{MMA})$ (blue) and complex interfacial viscosity η (black) as function of MMA in compression of a PCL-PLLA (poly(ϵ -caprolactone-*block*-L-lactide) $M_n = 200 \text{ kg}\cdot\text{mol}^{-1}$ $\bar{D} = 2.1$ (GPC) $l_{\text{CL}} = 76 \text{ r.u.}$ $l_{\text{LLA}} = 17 \text{ r.u.}$) monolayer at room temperature and constant compression rate $10 \text{ mm}\cdot\text{min}^{-1}$. (b) IRRAS spectra of PCL-PLLA monolayer Red – of an uncompressed layer, blue – at surface pressure $\pi = 9 \text{ mN}\cdot\text{m}^{-1}$, green at $\pi = 10 \text{ mN}\cdot\text{m}^{-1}$.

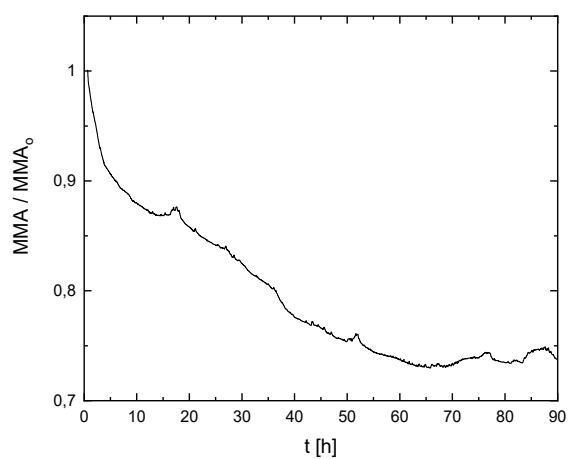


Figure S4. Evolution of the mean molecular area (MMA) normalized by the MMA in the beginning of the degradation experiment in uncatalyzed hydrolytic degradation of PGACL-PDLA at room temperature and constant surface pressure $\pi = 5$ mN/m.