"Polymers with Molecular-Weight Dependent LCSTs are Essential for Cooperative Behaviour"

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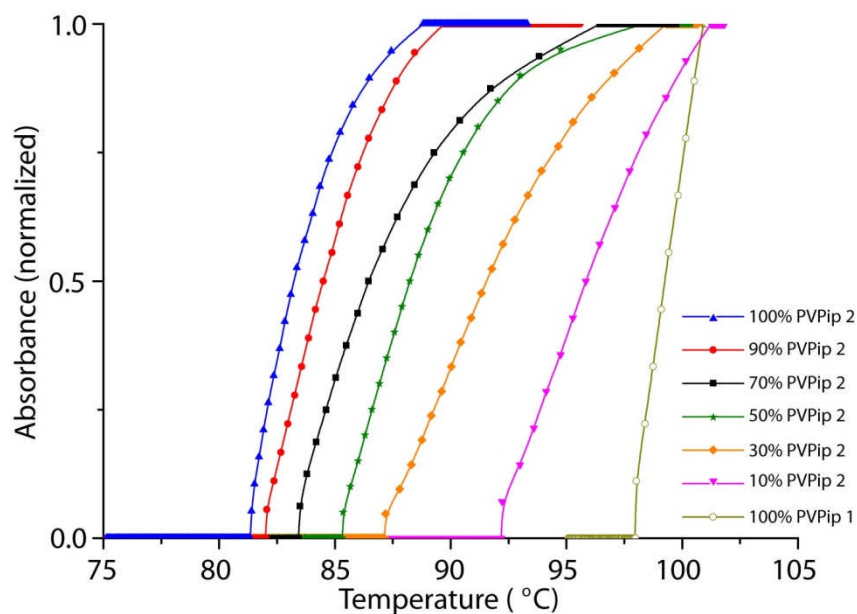**Cloud Point Determination for PVPip Polymer Blends**
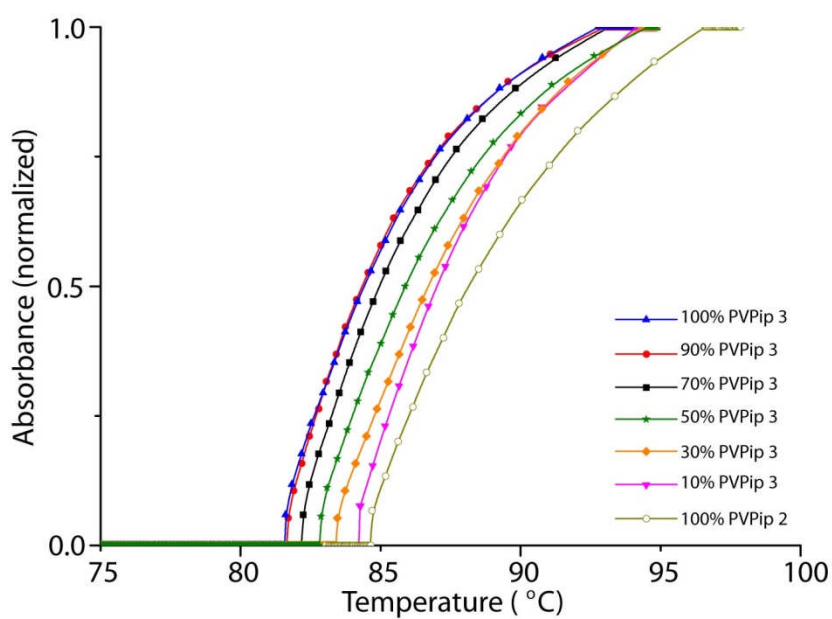


Figure S1. **PVPip 1** blended with **PVPip 2**
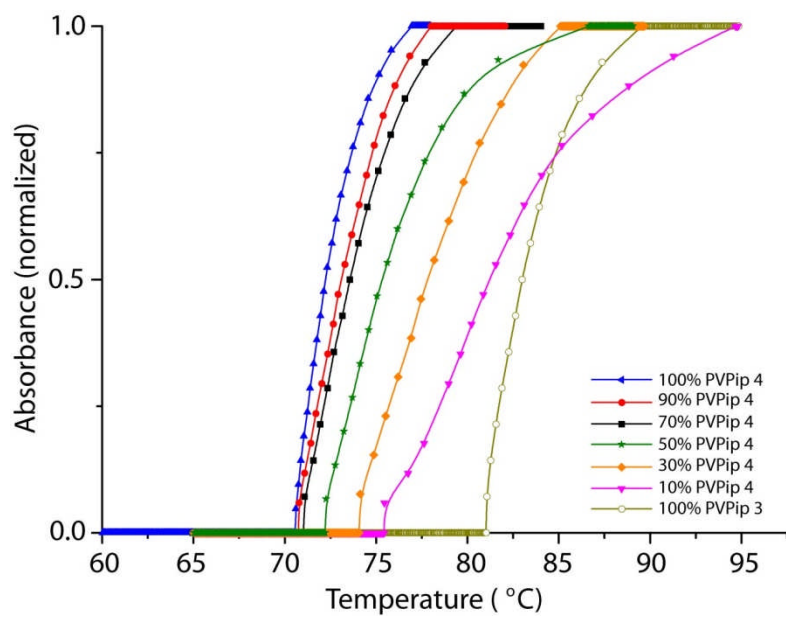


Figure S2. **PVPip 3** blended with **PVPip 2**
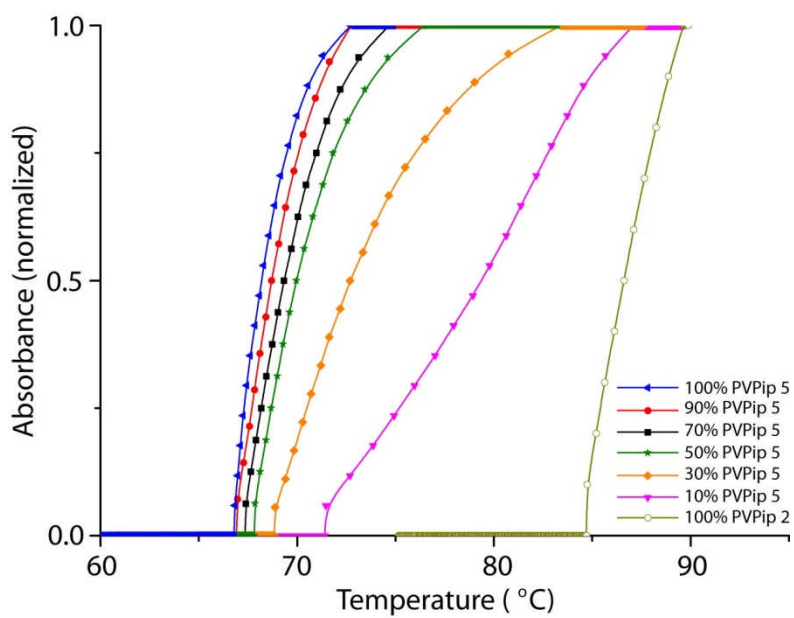
Figure S3. **PVPip 4** blended with **PVPip 3**
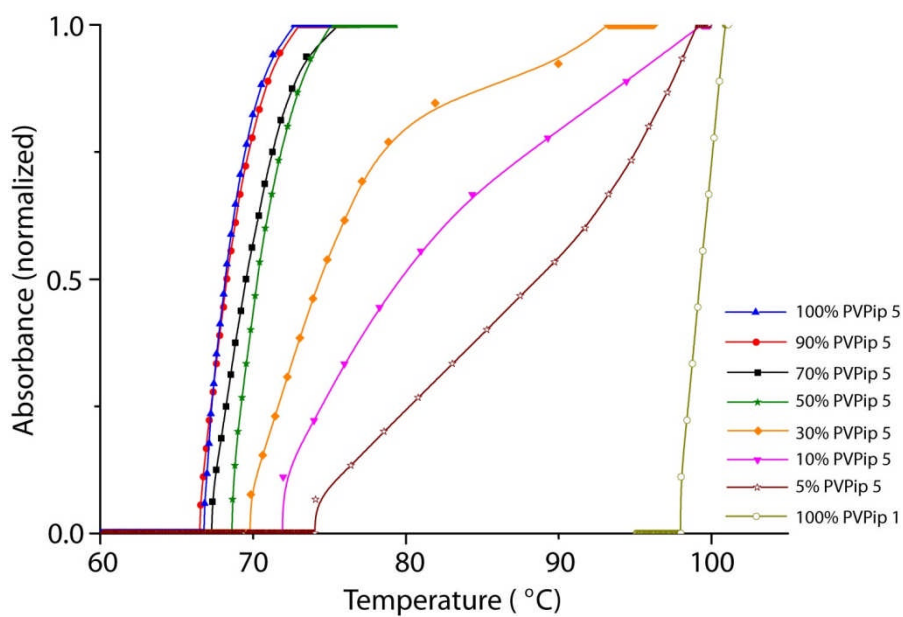


Figure S4. **PVPip 5** blended with **PVPip 2**

Figure S5. **PVPip 5** blended with **PVPip 1**
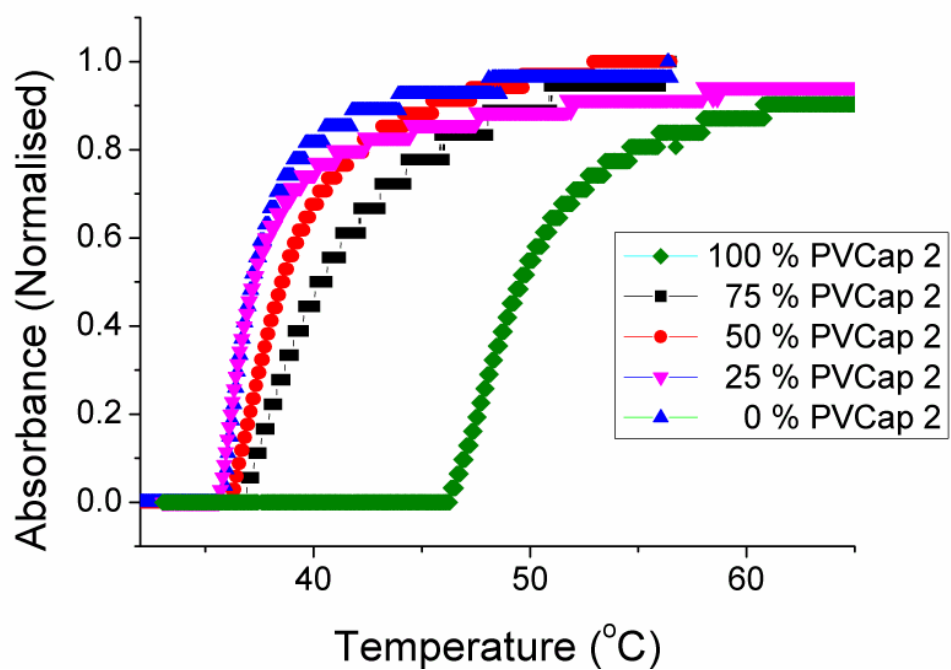
**Thermoresponsive behaviour of PVCaps**



Figure S6. **PVCap 2** blended with **PVCap 1**. Total polymer concentration 10 mg.mL$^{-1}$

**Determination of the Weight Average Molecular Weight of Polymer Blends**

Overall weight-average molecular weight ($\bar{M}_{\mathrm{w}}$) was obtained using the following relationship:

$M_i$ = Molecular weight of the $i^{\mathrm{th}}$ polymer

$W_i$ = $i^{\mathrm{th}}$ weight fraction

$$\bar{M}_w = \sum_{i=1}^{\infty} w_i M_i$$