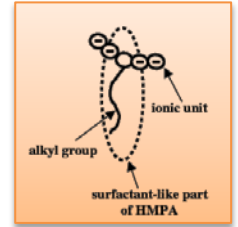
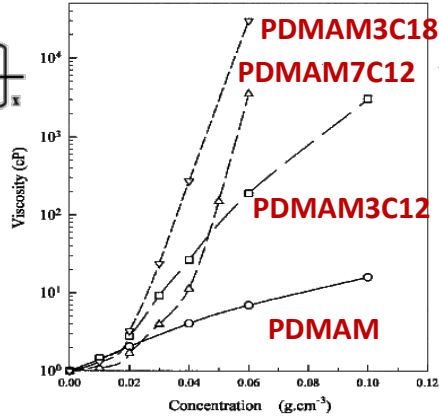
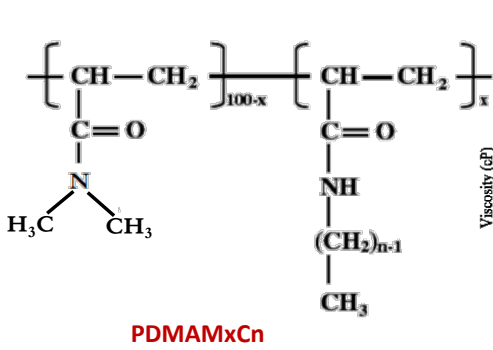


## Reology Modifiers/Reversible Hydrogels

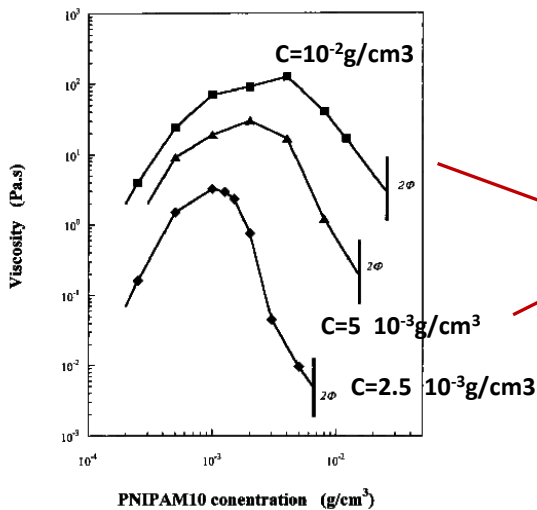
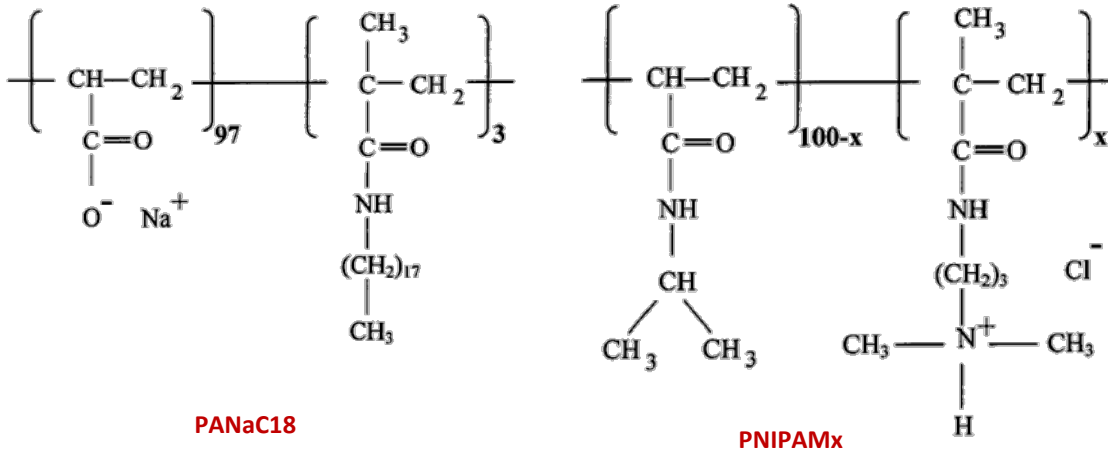
### Concentration-Controlled Thickening

#### ❖ Associative Polymers



L. Guillaumont, G. Bokias and I. Iliopoulos, Macromol. Chem. Phys. 2000, 201, 251-260.

#### ❖ Mixtures of oppositely charged associative polymers



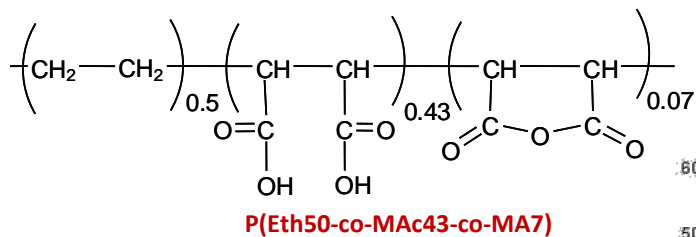
concentration of PANaC18

G. Bokias and Y. Mylonas, Macromolecules 2001, 34, 885-889.

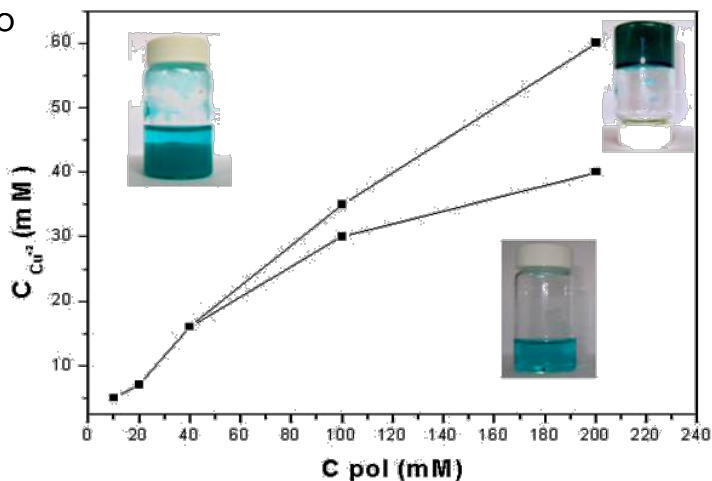
## Reology Modifiers/Reversible Hydrogels

### Gelation through Complexation with Cu<sup>2+</sup> Ions

#### ❖ Complexation of P(Eth50-co-MAc43-co-MA7) with Cu<sup>2+</sup> Ions



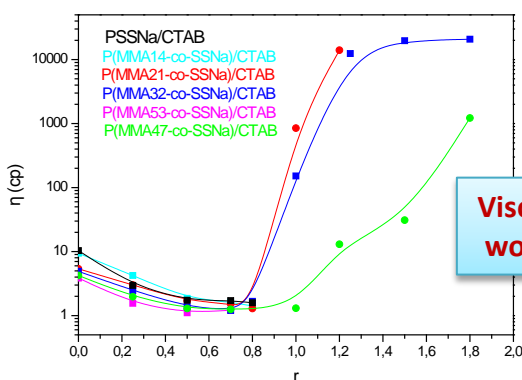
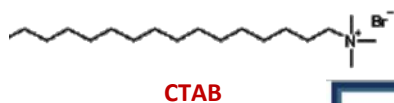
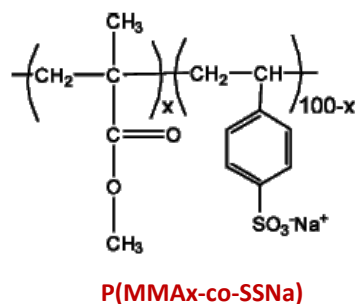
#### Phase Diagram



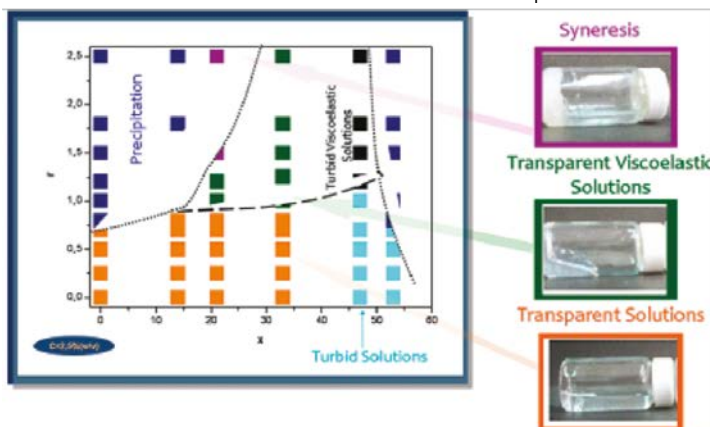
E. K. Oikonomou, N. Lezi, G. Bokias, J. K. Kallitsis and I. Iliopoulos, *Europ. Polym. J.* 2009, 45, 3426–3432.

### Gelation through Association with Surfactants

#### ❖ Complexation of SSNa-copolymers with CTAB in dilute aqueous solution



**Viscoelastic hybrid wormlike micelles**



E. Oikonomou, G. Bokias, J. K. Kallitsis and I. Iliopoulos, *Langmuir* 2011, 27, 5054–5061.

