METHOD FOR CONTROL OF TEMPERATURE-SENSITIVITY OF POLYMERS IN SOLUTION

The temperature-response (transition) as a function of the chemistry and composition of the polymers

(57) Abstract: Temperature sensitive, water soluble polymers are disclosed, together with a method for control the LCST of the polymer. The polymers include hydrophilic components and hydrophobic components joined by linking groups such as ester or amide groups wherein the hydrophilic components include n ethylene oxide groups, the hydrophobic components consist of aliphatic groups such as n ethylenes and/or cycloaliphatic groups, and where 1 ≤ m ≤ 30 and 1 ≤ n ≤ 30. Substrates bearing the grafted temperature responsive polymers also are disclosed. Microfluidic devices which include the temperature responsive polymers also are disclosed.
Declarations under Rule 4.17:
— as to applicant’s entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations
— as to the applicant’s entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations
— of inventorship (Rule 4.17(iv)) for US only

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