INFLUENCE OF PH AND CONCENTRATION ON DOUBLE STIMULI-RESPONSIVE HOMOPOLYMERS N-[3-(DIETHYLAMINO)ETHYL)-METHACRYLAMID IN BUFFER SOLUTIONS BEHAVIOUR

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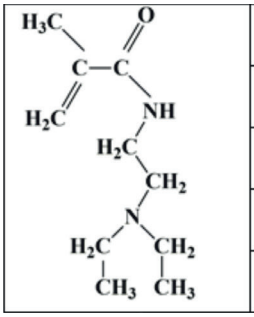
The aim of this work is to study pH dependences of solution characteristics of double stimuli-responsive N-[3-(Diethylamino) ethyl]methacrylamid in buffer solutions. M_w was 12000 g/mol and was measured by method of static light scattering in chloroform and deionized water.



pH	T_1,°C	T_2,°C	ΔT,°C	T_1*,°C	T_2*,°C	ΔT*,°C
7.0	>62.0	-	-	>62	-	-
9.2	50.0	53.0	3.0	50.0	53.0	3.0
10.0	43.0	44.0	1.0	43.0	45.0	2.0
12.4	38.0	39.0	1.0	38.0	39.0	1.0

Table 1. Structure of monomer and phase separation temperatures.

The table shows, that increase of pH leads to decrease of phase separation temperatures (T_1 and T_2) and interval ΔT. For pH close to 7 is not able to measure end of phase process, because temperatures are too high.

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