

Biocompatible, Polyampholyte Microgel Particles

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Biocompatible, polyampholyte microgel particles have been prepared by the acid hydrolysis of t-butyl groups within (2-diethylamino)ethyl methacrylate-co-t-butyl methacrylate microgel particles to give (2-diethylamino)ethyl methacrylate-co-methacrylic acid microgel particles. The hydrodynamic diameter and electrophoretic mobility of both the (pre-hydrolysed) and (post-hydrolysed) microgel particles have been investigated as a function of pH for three microgel dispersions differing in their monomer compositions. The swelling properties and iso-electric point pH are shown to depend on the monomer composition. The layer thickness of adsorbed polyampholyte microgel particles have been shown to be influenced by the underlying substrate surface charge.