

Photo-Cross-Linked pH-Sensitive Nanogels with Polyaspartamide Derivatives

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Novel pH-sensitive octadecylamine(C_{18})/O-(2-aminoethyl)-O'-methylpoly(ethylene glycol) 5000(MPEG)/methacrylic anhydride(MA)/1-(3-aminopropyl)imidazole(API)-g-PASPAMs graft copolymers of polyaspartamide derivatives are synthesized. It has photocrosslinkable groups such as methacrylate functions. So it can crosslinked after UV irradiation absence of toxic initiators. Nanogel is polymeric three-dimensional nano-sized networks able to swell in an aqueous medium. C_{18} /MPEG/MA/API-g-PASPAMs nanogel has been characterized by dynamic light scattering measurements at different pH value. This copolymers expected to have important applications of nano-carriers for intracellular drug and tumor targeting delivery systems.