

## Preparation of multi-phase polymer beads composed of block copolymer amphiphilic networks

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Block copolymer amphiphilic networks with amino functionality have been prepared in bead form. Oligo(butyl methacrylate) with dimethacrylate end groups were prepared as a latex. The oligo(butyl methacrylate) was synthesized by ozonolysis of poly(butyl methacrylate-*co*-butadiene) latexes and reaction of the resultant oligomers with glycidyl methacrylate. This material was then copolymerized with glycidyl methacrylate and ethylene glycol dimethacrylate in aqueous suspension to give spherical beads. Regular, spherical beads in the  $10^2$   $\mu\text{m}$  size range were produced with low levels of fines. Hydrolysis and amination of the epoxide groups produced beads with hydroxylic and amino functionalities. Scanning electron micrographs revealed that the beads had a phase separated and porous morphology.