Amphiphilic Copolymers

Subjects: Polymer Science

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Amphiphilic Copolymers are chains that carry both hydrophilic and hydrophobic segments, so they assemble at interfaces and in water [1]. Well-defined block copolymers of this kind form three-dimensionally ordered porous membranes through self-assembly and reverse micelle formation [1]. Folded amphiphilic homopolymer micelles assemble uniformly in water, which goes beyond what random copolymers achieve [2]. Comb-like amphiphilic copolymers assemble into micelles and vesicles whose form depends on the side-chain length [3]. Nucleobase-containing polypeptide copolymers combine hydrogen-bonding recognition with amphiphilic assembly [4]. Comb-like architectures in aqueous solution follow the same balance of core segregation and coronal stabilisation [5].

amphiphilic copolymer | self-assembly | micelle | vesicle | block copolymer | comb-like polymer

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