

Glycopolymer vesicles and tubes

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The combination of living ionic polymerization and thiol-ene (“click”) photoaddition techniques is a convenient and effective route towards well-defined biohybrid copolymers carrying carbohydrate or sugar units. The synthesized glycopolymers self-assemble into vesicles or tubes in dilute aqueous solution, depending on their molecular structure and the nature of interactions. Vesicles with symmetric or asymmetric membranes are formed via hydrophobic interactions, whereas tubes are formed via hydrogen bonding. Mechanisms of self-assembly will be discussed.