

# Synthesis of Hydrophobic Polymeric Sucrose-Containing Nanoparticles

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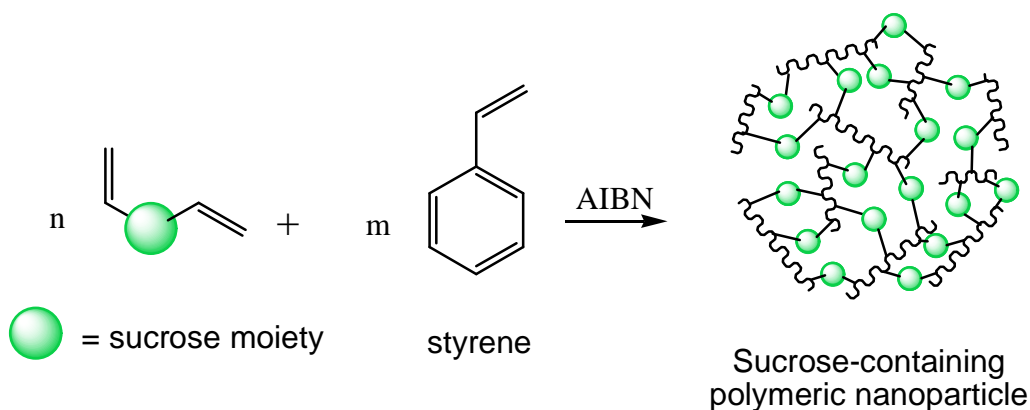
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## Abstract

Several bifunctional monomers have been synthesized from the key intermediate 1',2,3,3',4,4'-hexa-O-benzylsucrose under microwave irradiation, which allowed significant reduction of time and energy for the synthetic procedures. These monomers were co-polymerized with styrene to obtain cross-linked hydrophobic, sucrose-containing co-polymers. Formation of nano-sized hydrophobic particles was achieved by dispersion polymerization in aqueous media. The resulted polymeric nanoparticles have been characterized by the polymers constitution, degree of cross-linking, glass-transition temperature (T<sub>g</sub>), measured by Differential Scanning Calorimetry (DSC), and particles form and size by Atomic Force Microscopy (AFM).

## References

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