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Biopolymeric nanoparticles

REVIEW ARTICLE

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TOPICAL REVIEW

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Abstract This review on nanoparticles highlights the various biopolymers (proteins and polysaccharides) which have recently revolutionized the world of biocompatible and degradable natural biological materials. The methods of their fabrication, including emulsification, desolvation, coacervation and electrospray drying are described The characterization of different parameters for a given nanoparticle, such as particle size, surface charge, morphology, stability, structure, cellular uptake, cytotoxicity, drug loading and drug release, is outlined together with the relevant measurement techniques. Applications in the fields of medicine and biotechnology are discussed along with a promising future scope.

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82.35.Pq Biopolymers, biopolymerization
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87.14.E- Proteins
87.85.Qr Nanotechnologies-design
81.16.-c Methods of nanofabrication and processing
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