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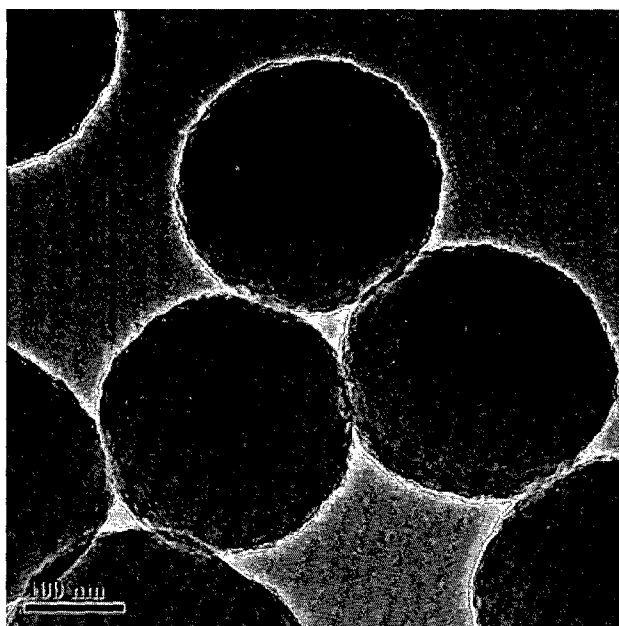
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(54) Title: METHODS OF PREPARING MONODISPERSED POLYDOPAMINE NANO- OR MICROSPHERES, AND METHODS OF PREPARING NANO- OR MICROSTRUCTURES BASED ON THE POLYDOPAMINE NANO- OR MICROSPHERES



(57) Abstract: Methods of preparing monodispersed polydopamine nano- or microspheres are provided. The methods comprise providing a solvent system comprising water and at least one alcohol having the formula R-OH, wherein R is selected from the group consisting of optionally substituted C₁-C₆ alkyl, optionally substituted C₂-C₆ alkenyl, optionally substituted C₂-C₆ alkynyl, optionally substituted C₃-C₆ cycloalkyl, optionally substituted C₃-C₆ cycloalkenyl, and optionally substituted C₆-C₇ aryl; adding dopamine to said solvent system to form a reaction mixture; and agitating said reaction mixture for a time period of 1 to 10 days to form said monodispersed polydopamine nano- or microspheres. Methods of preparing carbon and hollow metal or metal oxide nano- or microspheres using the polydopamine nano- or microspheres are also provided.



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