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Preparation and Characterization of Functional Microspheres with Silicone

substrate

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Abstract

Functional microspheres with silicone were obtained by the hydrosilylation reaction using the silicon hydrogen bonds on the surface of the micrometer-scale silicone rubber microspheres and the carbon-carbon double bonds on the surface of the nanometer-scale silicon dioxide. The amount of silicon dioxide was considered for the hydrophobicity of functional microspheres. The results showed that the surface of silicone rubber microspheres coated with nano-silica aggregates, and it formed micro-nano structure. The data of contact angle results demonstrated that the contact angle of sample reached 150°. With the increased amount of silicon dioxide with carbon-carbon double bonds, the data of contact angle slightly increased and tended to be stable.

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