

RESEARCH NOTES

有机无机杂化物作乳化剂的苯丙乳液制备及其性能表征

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摘要 A poly (St-co-BA) latex was successfully synthesized by using an organic-inorganic hybrid compound(OIHC), an aliphatic carboxylate sodium/nano-silica composite, as the emulsifier, and investigated by particlesize analyzer, transmission electron microscope (TEM), optical contact angle measurement (OCA) and dynamicmechanical analyzer (DMA). It was found that the protective agent, sodium polyacrylate (PA),could obviouslyimprove the polymerization stability and the functional monomer, glycidyl methacrylate (GMA), could enhancethe store stability of the latex. The particle size of poly(St-co-BA) latex decreased and then leveled off as OIHCcontent increased. TEM shows that the prepared polymers were actually organic-inorganic nanocomposites, andthese films have better waterproof property than those prepared by traditional poly(St-co-BA) latex or organicsilicone modified poly(St-co-BA) latex. The nanocomposite polymer has much higher glass transition temperaturethan organic silicone modified poly(St-co-BA) polymer containing the same organic silicone content.

关键词 [organic-inorganic hybrid compound](#) [emulsion polymerization](#) [nanocomposite](#)

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Synthesis and Characterization of Poly(St-co-BA) Latex with an Organic-Inorganic Hybrid Compound as Emulsifier

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Key words [organic-inorganic hybrid compound](#); [emulsion polymerization](#); [nanocomposite](#)

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