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材料物理和化学

黄绿电子墨水微胶囊的制备及性能研究

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摘要： 利用十八胺改性的酞菁绿G作为绿色显示颗粒,span80为电荷控制剂,四氯乙烯为分散介质,油溶黄为背景色,制备稳定的电泳液,采用界面聚合法制备出电子墨水微胶囊。研究了改性后的酞菁绿G 颗粒在电泳液中分散性和颗粒大小分布,通过SEM照片证明,当十八胺的质量分数为4%时,酞青绿G在四氯乙烯下分散效果最好。对电泳液进行微胶囊化处理后,在*E*=50 V/mm电场下,微胶囊中的颗粒可以进行可逆运动。

关键词： 酞菁绿G 界面聚合法 电子墨水微胶囊

Performance Research and Preparation of Yellow-Green Electronic Ink Microcapsule

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Abstract: Electronic ink microcapsules were prepared by the method of interfacial polymerization, stable solution of electrophoresis were produced by modified phthalocyanine green G as the green particles, span80 for the charge control agent, oil-soluble yellow for background color, PCE as a dispersion medium. Dispensability and particle size distribution of modified phthalocyanine green G in the electrophoresis medium were studied. SEM photograph is proved that when the octadecylamine mass fraction were 4%, dispersing effect of phthalocyanine green G in the PCE were the best. When *E*=50 V/mm, the particles in the microcapsules would be moved after the microencapsulation process is performed on the electrophoresis liquid.

Keywords: electronic ink microcapsules interfacial polymerization phthalocyanine green G

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