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[54] **PROCESS FOR CREATING AN ENCAPSULATED ELECTROPHORETIC DISPLAY**

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[52] **U.S. Cl.** **359/296**; 204/606; 204/478; 430/34; 430/35; 345/107; 252/583; 264/8

[58] **Field of Search** 359/296, 317, 359/318, 237; 204/478, 606; 430/34, 35, 37, 56; 345/107, 100; 252/583; 264/5, 8

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[57] **ABSTRACT**

Disclosed herein are novel electrophoretic displays and materials useful in fabricating such displays. In particular, novel encapsulated displays are disclosed. Particles encapsulated therein are dispersed within a suspending, or electrophoretic, fluid. This fluid may be a mixture of two or more fluids or may be a single fluid. The displays may further comprise particles dispersed in a suspending fluid, wherein the particles contain a liquid. In either case, the suspending fluid may have a density or refractive index substantially matched to that of the particles dispersed therein. Finally, also disclosed herein are electro-osmotic displays. These displays comprise at least one capsule containing either a cellulosic or gel-like internal phase and a liquid phase, or containing two or more immiscible fluids. Application of electric fields to any of the electrophoretic displays described herein affects an optical property of the display.

15 Claims, 14 Drawing Sheets