以肥皂膜水洞進行圓柱二維流之阻力係數與分離角實驗研究

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摘 要

LCD液晶顯示器需要較高解析度和較佳的顏色，因而需要較高數量的映像點和I/O接點，所以需要更好的接合技術來構裝LCD液晶顯示器驅動IC，而異方性導電膠COG（Chip On Glass）構裝技術可達到輕薄短小且高密度及高效能化的目標。 在COG構裝製程中異方性導電膠主要是將驅動IC固定於ITO（Indium Tin Oxide）導電玻璃上，籍由導電粒子連接趨動IC上的凸塊與玻璃基板上的ITO導電金屬層而達成電氣導通之目的，異方性導電膠在COG製程之連接機構中其連接導電性是我們主要探討目標。 異方性導電膠接合製程中主要影響其導電性是導電粒子變形量及導電粒子數目，然而製程的壓力對於導通電阻影響最大，太小的壓力會導致導電粒子與電極間的接觸面積不夠，而發生導電不良的情形；而太大的壓力會壓破導電粒子降低導通電阻，因此本文將以彈性接觸理論分析及有限元素分析來探討異性導電膠應用於COG製程之連接導電性、導電粒子變形狀況等。

關鍵詞 : 液晶顯示器（LCD），驅動IC，異方性導電膠（ACF），COG，ITO

目錄

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