二維陣列壓電噴墨頭之研究

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摘 要

在科技日新月異的現代社會中，噴墨列印技術(Inkjet printing technology)於近幾年變的更加多樣化，其所應用層面將更為廣泛，如新式燃料系統、液晶顯示器、光學通訊裝置和微機電元件製作上，並可以藉由此技術來降低成本以及提高製程的效率。在許多類型的噴印技術中，又以壓電驅動方式為一個重要的驅動方式之一。 本文中，採用驅動時會以剪切變形模式致動之圓徑向極化壓電致動器，將此致動器應用於二維陣列壓電噴墨頭上，來達到確保此壓電噴墨頭能夠同時在全部的噴嘴口噴出液滴，對此致動器如果能控制同時一起連續噴墨後，將設計一驅動波形，來控制此噴墨頭使之能夠達到單一訊號驅動達成噴墨作動，並且能噴出整片5*5陣列之25個單一的液滴。

關鍵詞 : 壓電，陣列，噴墨頭，驅動波形

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