

壓電式微噴頭及其微液滴撞擊機版之研究

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摘要

本文是在研究壓電微噴頭的特性及其實際運用的情形，首先分析、設計壓電微噴頭，經實際操作及ANSYS有限元軟體分析，製做出最佳化之壓電微噴頭，並藉由CCD來觀測實際操作時液滴的粒徑，探討液滴粒徑變化的原因，經有限元素分析和實驗量測比對，可得知壓電致動器在不同模態下的特性，並且使用不同黏度液體噴射觀測其變化，最後再以高速CCD觀測液滴碰撞到親、疏水性基材上的變化情形。

關鍵詞：壓電；致動器；微米液滴產生器

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