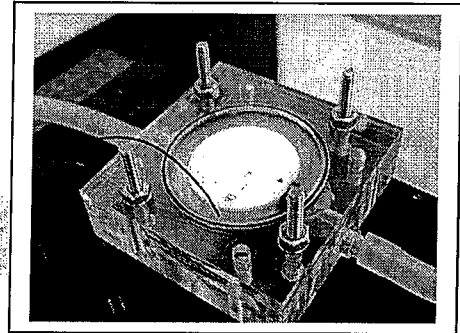




發明名稱



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簡歷：美國 University of Illinois at Chicago 機械工程博士, Board Member of the Steering Committee International Electronics Recycling Congress in Switzerland, Board Member and Asia Liaison of Semi-therm, Editorial Board, International Journal of Thermal Science, 台灣電力公司董事

市場及需求：本專利目標市場為醫療用精密輸液市場，此市場目前使用的均為步進馬達式幫浦，然而其成本過高、體積及重量過大，故市場上一直在尋找一個精準度高，但成本較低的解決方案，而本技術可以使微型馬達的流量精準度與步進馬達接近，但大幅降低成本與重量，故可以滿足市場上的需求。

技術摘要：本專利屬於壓電幫浦的相關應用，其重點在於改善現有的閥門機構，使得整體幫浦效率提升，更重要的是，此新型設計可以降低整個幫浦的製造以及後續應用成本

優勢：從市場需求而言，精密微型幫浦應用遠比傳統微型幫浦廣大，然而過高的成本卻使之無法普及，本專利可以大幅降低製造及後續使用成本，故有極高的市場價值。

競爭產品：綜觀市場，微型幫浦技術正往兩個極端發展，包含：應用範圍主要為印表機噴墨頭都超低價壓電幫浦，以及高端(動輒幾千元新台幣)供化工製程使用的高精準度壓電幫浦，本技術目標市場在兩個主力價格帶之間的真空區域，目前最接近此技術的競爭產品為德國 Bartel 公司的 MPx 系列產品，但由於驅動的核心技術不同，故目標市場也有所差異。

專利簡述：

(1) 本研究團隊具有數十年研究經驗，除了低流量、超高精準度的精密微型幫浦之外，另有其他研發路徑，包含大流量散熱用幫浦、超薄壓電幫浦、雙流向醫用幫浦等，在獲得此閥件專利之後，技術將完整涵蓋幫浦的各元件設計，使專利障礙進一步強化。

年 月 日

聯絡方式：臺大產學合作總中心

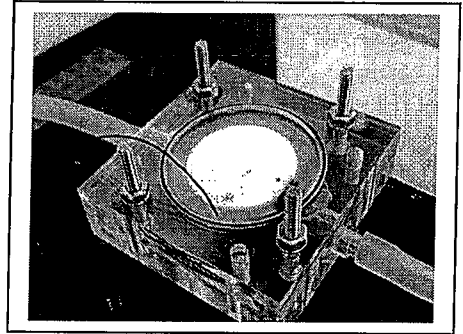
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Title of Invention

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Experience: Ph. D of University of Illinois at Chicago, Prof. of National Taiwan U. Board Member of the Steering Committee International Electronics Recycling Congress in Switzerland, Board Member and Asia Liaison of Semi-therm, Editorial Board, International Journal of Thermal Science



Market Needs: Precision Pumps for drug and blood delivery are popular in decades. However, most commercial precision pumps are actuated by servo motors which lead to high costs and heavy weights. The market is always finding new technology to achieve low cost and portable delivery systems.

Our Technology: Our technology can bring current high performance micropumps to commercial market. The new valve design can induce a robust and high precision flow rate while its cost is lower than traditional check valves.

Strength: Numerous micropumps have been designed and fabricated within the past decade. Few of them have successfully entered the market due to high cost and low performance. Our technology, which suits to most micropumps, is the best solution to improve flow performance and decrease manufacturing costs, bringing an opportunity for achieving a low cost and high performance delivery system.

Competing Products:

Bartel Mp5 and Mp6

Intellectual Properties:

We can provide complete solution for different kind micropumps including high to tiny flow rates. We have not only developed valves or actuators but every device of micropumps.

Contact (do not need to fill out):

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