

# 新穎水性聚胺酯交聯劑策略

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簡歷：

2009/08 至今 國立臺灣大學高分子科學與工程學研究所 教授

2000/08 至 2009/07 國立中興大學化學工程學系(所) 教授

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## 市場及需求：

1. 可注射性材料
2. 藥物釋放
3. 血管網絡構建
4. 止血材料
5. 固定生物分子和細胞的高效載體
6. 細胞培養

## 技術摘要(含成果)：

將水性聚胺酯改質成新穎交聯劑智慧水凝膠，應用範圍非常廣泛。

此交聯劑能夠客製化所需要的性質且可製備出兩種以上不同性質之

## 優勢：

1. 生物相容性高
2. 可調整生物降解速度
3. 製備方法簡易快速
4. 成本低廉
5. 環保製程
6. 容易大量生產
7. 產品應用面廣泛

## 專利現況：

本研究團隊對於水性聚胺酯的研究有相當的了解，在國際上發表多篇利用水性聚胺酯的研究，相關的水性聚胺酯技術及應用皆已申請專利保護。

## 聯絡方式(請不用填)：

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## Novel waterborne polyurethane crosslinker strategy

**PI :** Prof. Shan-hui Hsu;

Institute of Polymer Science and Engineering, National Taiwan U.

### Experience:

2009-08~

Institute of Polymer Science and Engineering, National Taiwan University; Professor

2000-08 ~ 2009-07

Department of Chemical Engineering, National Chung Hsing University; Professor

1996-08 ~ 2000-07

Department of Chemical Engineering, National Chung Hsing University; Associate Professor

1992-08 ~ 1994-07

Department of Biomedical Engineering, Chung Yuan Christian University; Associate Professor

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### Market Needs:

1. Injectable material
2. Drug release
3. Vascular network construction
4. Hemostatic material
5. Efficient carriers for immobilizing biomolecules and cells
6. Cell culture

### Our Technology:

The waterborne polyurethane is modified into a novel crosslinker, which can prepare two or more different types of smart hydrogels, which are widely used in biomedical applications.

### Strength:

1. High biocompatibility
2. Tunable biodegradation rate
3. Facilely and quickly prepared process
4. Low cost
5. Eco-friendly process
6. Can be used for mass production
7. Wide applications

### Intellectual Properties:

Our team has abundant experiences on the investigation of waterborne polyurethane research, and published several reports focused on the waterborne polyurethanes. The waterborne polyurethane technology and applications have been claimed to potent protection.

### Contact (do not need to fill out):

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