



計畫名稱：毒性化學物質有機錫類化合物檢測方法之研究

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#### 成 果 摘 要

本研究開發以 GC/PFPD 與 GC/FPD 偵測市售紙尿布與油漆中，三種有機錫含量的檢測技術。所測定得有機錫為三丙基錫，三丁基錫與三苯基錫。

在樣品處理上，將一克的樣品以酸化的甲醇萃取，加入緩衝溶液後以二氯甲烷萃取。再以正己烷進行溶劑置換，以格林納試劑進行衍生化後上機。所得的回收率對紙尿布樣品而言三種有機錫均在 85% 以上，對油漆而言，回收率在 80% 以上。取市售的樣品各三種測定未發現有機錫含量。

This study is to evaluate the analytic method of organotin compounds in household materials by gas chromatography with pulsed flame photometric detector or flame photometric detector. The organotin compounds test in this study are tripropyltin, tributyltin and triphenyltin.

In the pretreatment procedure, the sample was extracted with acidified methanol. The buffer solution was added to adjust the pH value of water. Dichloromethane was then added to extract the organotin compounds. Hexane was used as the exchanged solvent for further derivation with propyl magnesium bromide. The recoveries were above 80% for diaper and painter samples.

關閉視窗