國立臺灣大學技術行銷表

臺大案號: 12A-120109

產學合作中心聯絡人：駱瑋蓁　　電話：02-33669948　　e-mail：weichenlou@ntu.edu.tw

技術名稱	利用雷射雕刻技術標記昆蟲之方法
發明人/單位	林達德、伍家瑩、楊恩誠、彭繹栴、江昭皚/生物產業機電工程學系、昆蟲學系
技術內容	昆蟲標記為觀察昆蟲行為與追蹤昆蟲的重要方法，本專利提出一標記昆蟲之方法，利用雷射雕刻技術將圖形或符號直接標記於昆蟲本身或是標記於塗覆於昆蟲身體上之塗料，達到利用此標記辨識昆蟲個體之目的。此標記昆蟲之技術可以應用於個別昆蟲之行為觀察與追蹤等。
技術成熟度	□量產□試量產■雛型□實驗階段□概念□其他
應用方式及預期產品說明	1.以本專利核心技術發展各種標記昆蟲之方法。 2.將上述概念應用於各種昆蟲之追蹤系統。 3.將上述概念應用於各種昆蟲之監測系統。
技術創新度/優點	已發表的技術中，為以手書寫、黏貼標籤或感測器之昆蟲標記方法。本專利提出之標記方法，相較於現有技術具有微小化、不易脫落與不易影響昆蟲行為的優勢，及具有自動化標記的潛力。
智慧財產權	專利申請中

Marketing Abstract of NTU's Invention Disclosure

NTU's docket no: 12A-120109

CIAC contact：Wei-Chen Lou　　Tel：02-3366-9948　　e-mail：weichenlou@ntu.edu.tw

Title	The Labeling Method for Insects by U sing Laser Engraving Technique
Inventor (s)	Ta-Te Lin, Chia-Ying Wu, En-Cheng Yang, Yi-Chan Peng, Joe-Air Jiang/ Department of Bio-Industrial Mechatronics Engineering, Department of Entomology
Brief Description	Insect labeling is an important method for observation of insect behavior as well as tracking insects. This invention proposes the technique of labeling patterns or symbols directly on insect body or on the paint coated on the insect body. The method allows for identification of individual insects from their laser engraved labels. The proposed method can be applied for behavioral observation and tracking of individual insects.
Development Stage	☐Production ☐Trial production ■Prototype ☐Lab scale ☐Idea ☐Others
Fields of Application	1. Labeling methods of various insects based on the core concept of labeling. 2. Insect tracking method or system based on the core concept of labe1ing with laser engraving. 3. Insect behavior monitoring method or system based on the core concept of labeling with laser engraving.
Advantages	Conventional methods for insect labeling use hand-written labels or attach tag or sensors on insects. Compared with these methods, our proposed method has the advantages of miniaturization of labels, avoidance of label detachment from insect body, minimum influence of insect behaviors, and potential for automatic labeling procedure.
IP Right(s)	Patent pending