

計畫名稱：室內空氣品質檢測方法之研究

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成 果 摘 要

由於現代人居處於室內環境的時間達90%以上，故而室內空氣品質(IAQ)之良窳對人民健康亦具有相對之重要性。目前世界各國單位組織紛紛擬定室內空氣品質之指標及標準，而本研究團隊亦於前期研究中初步草擬室內空氣品質之標準。然為施行室內空氣品質管制策略、落實查核制度及自動檢查辦法，必須先訂定一套室內空氣品質標準檢測方法。而我國尚未建立室內空氣品質建議標準檢測方法。故而本研究計劃之目的即為明訂各項檢測項目之標準儀器方法、校正準則、品保/品保規則、適用範圍等規則，並進一步針對室內空氣品質調查方法如代表性採樣點選取、採樣點數目、監測時間等進行詳細之規範描述。以提供技術人員進行室內空氣品質查核檢測或是建築所有人進行自動檢查記錄之基本依據及參考。

本研究經由文獻彙整比較、實地操作室內空氣品質之檢測後。目前已擬定各個檢測項目之建議檢測方法之草案，擬定之檢測項目包括：CO、CO₂、PM₁₀、TVOC、甲醛、O₃、SO₂、NO₂、細菌及真菌。此外，本研究亦參考各國文獻、組織所採用之採樣規原則，再經實地施行比較加以修正後，訂立了一套我國室內空氣品質採樣規劃建議原則。此建議原則之內容包括：採樣點之選取、採樣數目之決定、採集樣本之時間長度、時段及採樣之頻率等。

希冀經由此採樣規劃建議原則之訂立及各項指標污染物之標準檢測方法之擬定，對於我國推廣室內環境中具有良好之室內空氣品質能有所助益。

Environmental Protection Agency in Taiwan have try to promote indoor air quality (IAQ) regulation since 1998 and our study group have in charge to investigate the actual state of indoor air quality and draft an IAQ standard and control strategy. Establishing standard measuring methods including measuring equipments and sampling criteria for collecting representative samples is necessary for promoting indoor air quality examination.

Our study aims to evaluate different methods that have used to measuring IAQ in other countries and previous researches based on precision, accuracy, cost efficiency, and simplicity of operation. The standard measuring method includes measuring equipments, operation procedures, calibration procedure and duration, quality control, and results reporting format for measuring indoor carbon dioxide, carbon monoxide, ozone, particulate, formaldehyde, total volatile organic compounds, sulfur dioxide, and nitrogen oxide. Moreover, for conducting representative samples in investigated buildings our study has draft a guidance criterion of selecting sampling sites, sampling numbers, sampling high, and sampling duration. The proposing guidance for IAQ measuring standard could be the basis for promoting IAQ regulation in Taiwan.