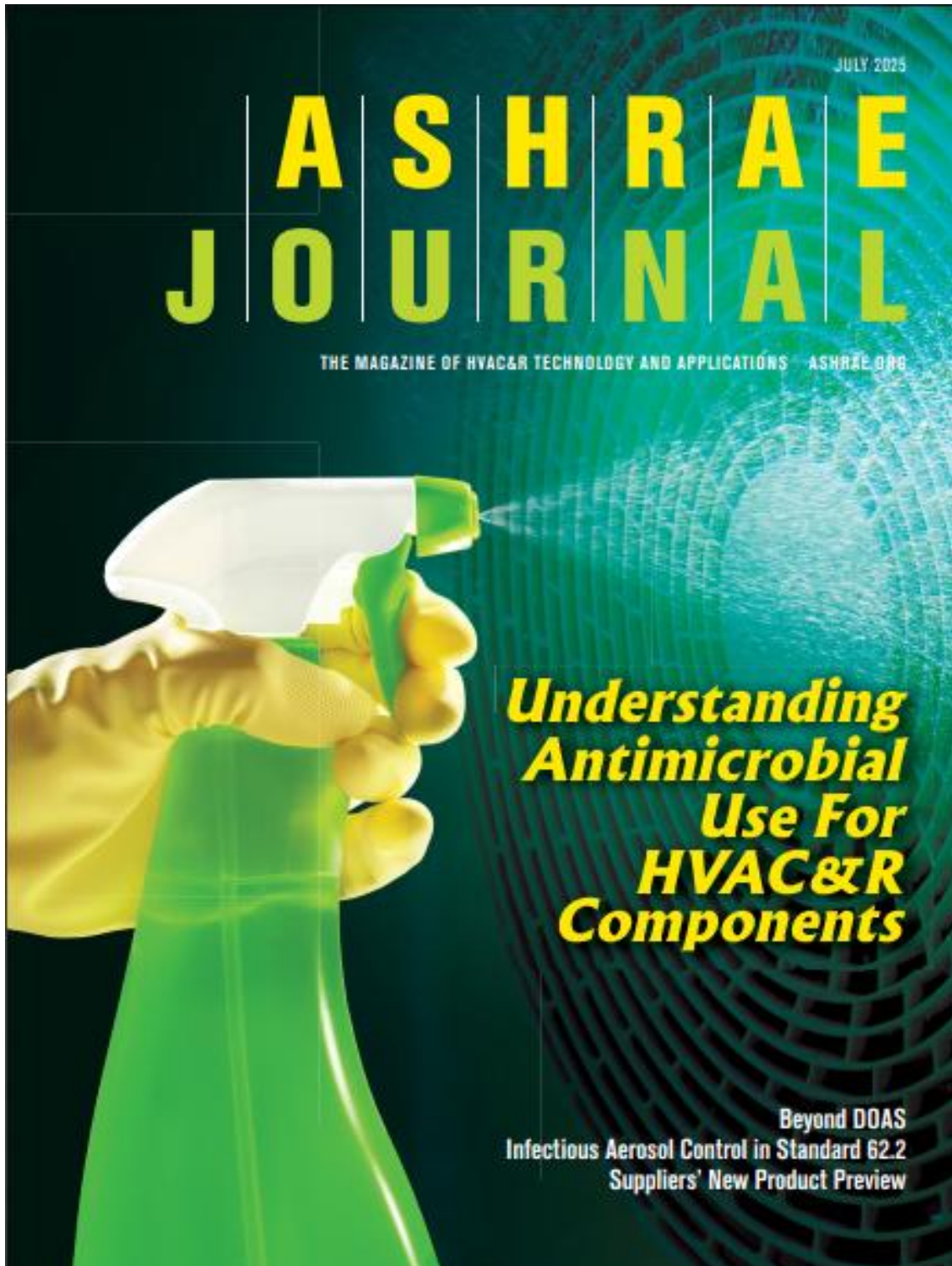


## ASHRAE 月刊 (July 2025)

冷凍空調技術及應用 ASHRAE.ORG



Translated by Bill Wang of the ASHRAE Taiwan Chapter with the permission of ASHRAE. ASHRAE assumes no responsibility for the accuracy of the translation. ASHRAE Members may access the English-language articles for free at <https://www.ashrae.org/journal>, and nonmembers may obtain copies of individual articles via the ASHRAE Bookstore at <http://www.ashrae.org/bookstore>.  
本文件經 ASHRAE 授權，由 ASHRAE 台灣分會(王偉棟)翻譯。ASHRAE 對翻譯內容的準確性，不承擔任何責任。  
ASHRAE 會員可免費閱讀英文原文，網址為：<https://www.ashrae.org/journal>；  
非會員可透過 ASHRAE 書店購買單篇文章，網址為：<http://www.ashrae.org/bookstore>。

## FEATURES 特色

### 28 Chemistry, Regulatory & Performance Aspects of Antimicrobials for HVAC&R Components

冷凍空調系統元件中，抗菌劑的化學性質、法規與性能面向

By Phil Coffman

### 38 How Wet-Bulb Economizers Can Save Energy, Support Health Through Humidification

濕球節能器如何藉由加濕節能並促進健康

By C. Mike Scofield, Gursaran Mathur, Stephanie Taylor

## 2025 ASHRAE TECHNOLOGY AWARDS 科技獎項

### 48 Using Heat Pumps and Solar Energy To Optimize a Multipurpose Residential and Office Building

利用熱泵與太陽能，優化多功能住宅與辦公大樓

By Félix Robert

### 52 Energy Conservation and Optimization of Hang Seng Bank Headquarters

恒生銀行總部的節能與優化

By Eddie Chan

### 54 Former Power Plant Transforms Into STEM Learning Facility

舊發電廠轉型為 STEM(科學、技術、工程及數學)教育設施

By Joseph Schwartz

## COLUMNS 專欄

### 14 Infectious Aerosol Control Infectious Aerosol Control in Standard 62.2

標準 62.2 中的傳染性氣溶膠控制

By Max Sherman, Steven J. Emmerich

### 18 HVAC Fundamentals Beyond DOAS: Smarter Solutions For Greater Value

超越專用外氣空調系統 (DOAS) 的冷凍空調基礎：更智慧的解決方案，創造更大價值

By Peter Luttik

### 24 Guest Column 特約專欄

Standard Integrated Testing of Fire Protection and Life Safety Systems In Canada

加拿大消防防護與生命安全系統的標準整合測試

By Kyle Bigourdin

### 96 Refrigeration Applications Risk

製冷應用風險

By Andy Pearson

## Podcast 播客



Join Joseph Schwartz as he discusses the transformation of a decommissioned power plant into a state-of-the-art STEM learning facility.

請加入 Joseph Schwartz，共同探討退役發電廠轉型為最先進 STEM 教育設施的過程。



Listen to an update on the state of liquid cooling in data centers. Topics of discussion include research on liquid cooling resiliency and more.

聆聽有關資料中心液冷卻現況的最新報告。討論主題包括液冷卻的韌性研究等內容。