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英文論文名稱: Three-dimensional Airflow Analysis For AGV in Cleanroom

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[摘要]

本研究主要利用動態模擬來探討自動引導搬運車在無塵室內移動時，對無塵室內流場所造成之影響，移動物體在無
成微粒被捲入渦流中進而造成對製程本身或產品的污染。而本研究根據此一有限移動邊界問題之特性，利用電腦軟
對於無塵內的自動導引搬運車（AGV）對內部流場的影響進行分析，所有問題中之邊界條件均以常見之工業規格及
入口FFU之分佈，並在單機狀態下於機台釋放微粒用以觀測微粒沈積之情況。結果顯示AGV於移動時兩側會有迴流
板的誘引氣流，避免對AGV及其負載物之污染，但填補AGV後方因固體邊界移動所產生空洞之氣流會使AGV後方表

[英文摘要]

Dynamic simulation technique was used to study the airflow field of an AGV moving in the cleanroom area. Movi
the cleanroom. In such a case, particles will also suspend in the vortex. All boundary conditions were set accordi
include: 1. A single AGV moving in the cleanroom; 2. An AGV with FOUP moving in the cleanroom, and 3. Varial
Also, a process tool is generating particles in the cleanroom. The result shows that when an AGV starts to move,
can force the back flow from the raised floor from reaching to the upper side of the AGV. The airflow from the bac
stick on the back side surface of AGV.

[論文目次]

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