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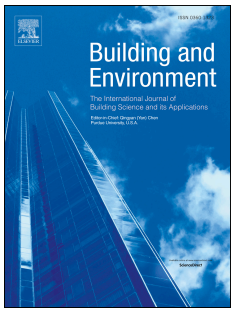

Mass loading of particles in the supply ducts of mechanical ventilation systems in homes

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Tittle and Authors

Title

Mass loading of particles in the supply ducts of mechanical ventilation systems in home

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Purpose and Contributions

Even though mechanical ventilation systems provide multiple benefits, most of occupants do not use the mechanical fans to ventilate their homes. The mechanical ventilation systems are operated only for a few days throughout the year. A large quantity of airborne particles may be deposited in the supply ducts during no fan operation period, and the resuspension of the deposited particles from the supply ducts influence on occupant health and exposure.

The objective of this study was to determine the mass loading of particles in the supply ducts of homes with different mechanical fan operation conditions. This study can help understanding occupant behaviour related with mechanical ventilation systems, and also, the results provide useful information and tips for designing mechanical ventilation systems of homes.