

Title:

Measurement of Airborne Viruses

Speaker:

Thomas H. Kuehn

Professor and Director of Environmental Division

Department of Mechanical Engineering

University of Minnesota

111 Church St. S.E.

Minneapolis, MN 55455-0111

Abstract:

With the threat of bioterrorism in large public buildings, early warning systems have been developed and installed. However, there is a need to determine the natural background levels of various threat agents and near neighbors that could prompt false alarms. A method of detecting extremely low background levels of bacteria and viruses in buildings has been developed and demonstrated in a pilot study using the material captured by existing ventilation filters. The material is initially removed from sections of the filter media by elution. The presence of targeted viruses can be determined using molecular identification methods such as polymerase chain reaction (PCR).