

ISRP 2000 abstract

Presenter/author	Title	Abstract
Yamada, Hiroshi Managing director, Shigematsu Works Co., Ltd, Iwatsuki, Japan	Filtering efficiency of particulate filters against DOP particles	We have studied filtering efficiency of filter media designed for dust respirators. When we tested the filter media against DOP particle loading, we observed three types of phenomenon on the efficiency: (1) decreasing rapidly, (2) keeping almost constant value and (3) increasing rapidly at the initial stage then approaching a constant value. Electrostatic filters usually show the first phenomenon. Mechanical filters show either of the last two phenomena. Almost all mechanical filters show the second phenomenon. A mechanical filter treated with a water and oil repellent chemical shows the last phenomenon. These phenomena of the efficiency are thought to be related to the surface state. We will discuss on the state of DOP particles collected by the filter fibers and the effect on the efficiency.