

The "Berkeley Hood": A High-Performance Fume Hood



Research at Lawrence Berkeley National Laboratory has led to an improved fume hood that provides better protection to the user at one-half the energy use.

Fume hoods protect workers from breathing harmful gases and particles. Because they are on 24 hours a day, and pull air through the open window-like face (the sash) at around 100 feet per minute, fume hoods are energy-intensive devices. With 0.5 to 1.0 million hoods in use in the U.S., aggregate energy use and savings potential is significant.

The "Berkeley Hood" uses a "push-pull" approach to contain fumes and move air. Small supply fans located at the top and bottom of the hood's face push air into the hood and into the user's breathing zone, setting up an "air divider" at the hood opening. The Hood is being tested at the University of California, San Francisco, Montana State University, and San Diego State University.

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