

# ISRP 2002 abstract

Presenter/author	Title	Abstract
Campbell, Lee** Davis, John* Hanzelka, James A.* Lins, Raymond**	<b>Use of the SMARTMAN Test Apparatus in Testing Respiratory Protection</b>	The Simulated Agent Resistance Test Mannequin (SMARTMAN) is a static headform that is designed to test the capability of respiratory protection to resist chemical agent penetration under conditions of use. The SMARTMAN headform is outfitted with ancillary equipment that simulates breathing and allows for measurement of chemical agent penetration in either the ocular or the oral/nasal areas. The system is mounted inside an environmental chamber, which allows for control and measurement of environmental parameters such as temperature, relative humidity and differential pressures. This containment chamber also allows for the control and measurement of the agent challenge concentration. Currently this procedure has been used to measure the efficacy of four types of respiratory protection: Self-Contained Breathing Apparatus (SCBA), negative pressure respirators, positive pressure respirators, and escape mask systems.
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