Chemical Vapor-Level Testing of Chemical Protective Suit Ensembles

정현숙*, 최근섭, 박현배, 이해완
국방과학연구소
(hsj1974@gmail.com*)

We are developing the standard for designing and conducting tests estimating penetration of chemical agent vapor through chemical protective suit ensemble while humans or manikins are wearing the protective clothing and moving. This program is called as man-in simulant test program or MIST program. We use methyl salicylate vapor to simulate toxic chemical agent vapor and determine the protective capability of the suit against the simulant vapor. Here we report from generation to detection of methyl salicylate vapor in a laboratory-level MIST program. We use Brooks vaporizer instruments to generate methyl salicylate vapor in a controlled way and utilize a photoacoustic multi point monitor to detect the vapor in 12 different positions inside a chamber. The detailed procedure and results will be discussed.