

296g Magnetic Detection of Spores

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The desire of the ability to detect air born spores has significantly increased after the mailing of anthrax spores, and subsequent deaths, several years ago. A number of technologies have been or are being developed to detect air born spores; never-the-less, the detection of spores, especially, of a biological warfare agent, is difficult.

We are developing, with the support of the DOD, a portable biochip for the rapid detection of biowarfare agents. This device, will be based on the use of antibodies conjugated to magnetic nanoparticles and fluorescent probes, as well MEMS and microfluid technology to separate, sort, and quantify target entities. This presentation will focus on the magnetic labeling of the targeted entities.