



TECHNOLOGY

Method of Distinguishing Bacterial Spores by Their Soluble Polypeptides

OVERVIEW

A number of approaches have been used in the past for applying the analytic power of mass spectrometry to microorganisms. Among these electrospray ionization and matrix assisted laser desorption mass spectrometry have provided access to cellular proteins as biomarkers. More recently enzymatic cleavage of proteins on the sample holder for direct analysis of peptides has also been proposed to provide an easy, rapid analysis of simple viruses. However, applying this strategy to more complex microorganisms produces a large mixture of peptides, poor signal to noise ratios, poor sensitivity for tandem mass spectrometry experiments, and poor reproducibility. The presently used technology cannot distinguish between closely related species and strains of *Bacillus* spores.

Researchers at the Department of Chemistry and Biochemistry, University of Maryland have developed a novel method for identifying and distinguishing *Bacillus* spores. In addition, this novel method can identify *Bacillus* spores in mixed and badly contaminated samples.

For additional information, please contact the Office of Technology Commercialization, University of Maryland. Phone: 301-405-3947. E-mail: otc@umd.edu.

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Additional Information

INSTITUTION

University of Maryland, College Park

PATENT STATUS

Patent(s) pending

LICENSE STATUS

Contact OTC for licensing information

CATEGORIES

- Biomarker

EXTERNAL RESOURCES

- [US Patent 8,071,329](#)

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