Licensable Technologies

Magnetic Microsphere Research Tool

Applications:

- Drug discovery
- Clinical diagnostics
- Drug efficacy monitoring
- Environmental monitoring
- Biodefense monitoring
- Diagnostics

Benefits:

- Simple, easy-to-use and inexpensive technique for biomolecular separation
- Multiplexed and high throughput
- Rapid, highly-specific assay
- Rugged and field-deployable

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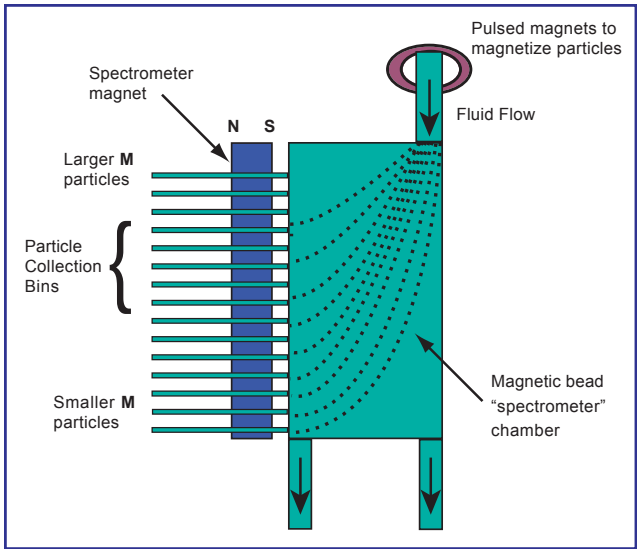

Bioassay magnetic bead 'flow-spectrometer'

Summary:

From ensuring the safety of the world's food, water, and air supplies to monitoring the efficacy of medical treatments, the detection and manipulation of biological material is critical to many large industries. The use of magnetic microspheres for separation and identification of specific biomolecules is a growing area in biological research and diagnostics. Los Alamos National Laboratory (LANL) has a patent pending technology for a method and an apparatus for using magnetic microspheres to bind, sort, and collect biomolecules of interest. This invention has applications in medical diagnostics, detection of bacteria and bioagents, environmental monitoring and genomics, and proteomics research and can process a large number of biomolecules at once. For example, magnetic microspheres can be used to determine accurate CD4/CD8 lymphocyte counts, necessary for monitoring drug therapies for AIDS at a cost and speed that make access to monitoring attainable in the developing world. The wide variety of applications includes many biotechnology and clinical markets, which have an estimated value of more than 50 billion dollars annually.

LANL is seeking an industrial partner to commercialize the magnetic microsphere technology. LANL's commercialization goal is to identify the optimal strategy and partners to most effectively transfer the technology into commercial markets.

Development Stage:

Development is ongoing at LANL.

Patent Status:

Patent applications filed.

Licensing Status:

Available for exclusive or non-exclusive licensing.

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