Los Alamos NATIONAL LABORATORY EST.1943

Business Opportunities

Microfluidics and Nanofluidics

Executive Overview:

Microfluidic and nanofluidic technologies that deliver rapid size and cost reductions of fluidic systems will impact major markets from medical devices and diagnostics to industrial process design. While radical new product architectures—disposable analyzers, microreactors, bioimplants—remain on the horizon, today's advances in microfluidics are already entering the market as incremental improvements to existing products.

Los Alamos National Laboratory (LANL) is now offering its portfolio of microfluidic and nanofluidic technologies for licensing and collaboration. Specific technologies include advanced acoustic techniques for particle concentration in flow cytometers, multi-physics simulation software, optical interfaces and a technique for nanoscale lithography of polymer structures.

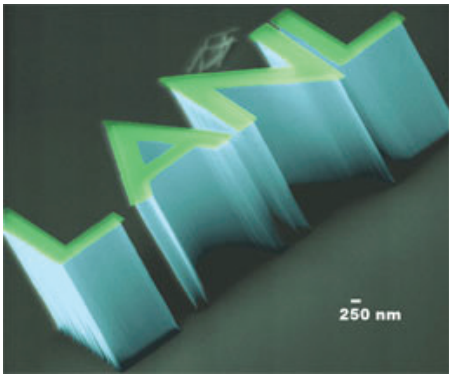
By working with LANL, companies gain access to innovative microfluidic technologies while minimizing R&D risks and expenditures. Our partners gain access to leading research collaborators as well as to LANL's emerging intellectual property (IP) portfolio in Microfluidics. We invite you to explore microfluidic and nanofluidic business opportunities available with LANL today.

Select LANL Microfluidic IP:

- CartaBlanca: Simulation Software for Non-linear Physics on Unstructured Grids
- Acoustic Particle Focusing for Flow Cytometry (patent pending)
- A Simple, Non-Invasive Acoustic Technique for Liquid Flow Control (patent pending)
- Ultrasonic Particle Concentration by a Line Driven Cylindrical Tube (patent pending)
- Field Emission Plasma Enhanced Laser Chemical Vapor Deposition (patent pending)
- Integrated CCD Array Sensor for Real Time Measurements of Biological Samples (patent pending)
- ENABLE: Energetic Neutral Atom Beam Lithography and Epitaxy (patents in preparation)

Partnership Mechanisms:

Licensing Agreements
Non-Federal Work-for-Others Agreements (WFO)
Cooperative Research and Development Agreements (CRADA)



LANL's Energetic Neutral Atom Beam Lithography/Epitaxy technology (ENABLE) provides selective etching of polymers with sub-100 nm features and aspect ratios of up to 35:1. ENABLE promises to open new frontiers in precisely defined nanoscale polymer structures and optofluidic interfaces.

Partner Benefits:
Access to new technology
Reduced development time
Reduced risk of R&D
Reduced cost of R&D
Competitive advantage (IP)

Select Applications:
Flow cytometry
Medical devices
Biochemical assays
Chemical synthesis
Microanalyzers
Fuel cells

Capabilities:
Multi-physics modeling
Nanoscale lithography
Advanced acoustics
Optofluidic interface design

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Technology Transfer Division