



Streamlined Design for Transferring Analytes

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WARF: P130361US01

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a microfluidic device that directly integrates with downstream analysis instruments.

Overview

Polymerase chain reaction (PCR) is used to generate copies of a particular DNA sequence. The technique is common and indispensable in many research applications. Unfortunately, methods for isolating/preparing samples of the DNA target are time consuming.

UW–Madison researchers have designed microfluidic devices that use a "SLIDE" technique to accelerate the process.

The Invention

The researchers have now improved their design and developed a microfluidic device that directly integrates with tubes, strip tubes and well plates. In this way a sample can be directly transferred from the device to downstream analysis instruments.

The device comprises a strip of wells that hold various volumes of output fluid. Following sample isolation via the researchers' previously developed SLIDE technique, the strip containing the sample and output buffer is removed from the SLIDE and applied to a set of strip tubes in the same way that conventional covers would be applied.

Then, by flicking or centrifuging the tubes, the sample is transferred from the cap to the tube. At this point the sample is ready for PCR or other downstream analysis.

Applications

- Sample preparation

Key Benefits

- Streamlines sample transfer
- No pipettes or additional equipment
- Simple and inexpensive
- Compatible with SLIDE and potentially other microfluidic designs
- May work with wide range of analytes and analyses (not just PCR)

Stage of Development

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Additional Information

For More Information About the Inventors

- [David Beebe](#)

Related Technologies

- [WARF reference number P100050US01 describes a microfluidic device for rapid nucleic acid isolation and purification.](#)

Related Intellectual Property

- [View Divisional Patent in PDF format.](#)

Tech Fields

- [Analytical Instrumentation, Methods & Materials : Microfluidics](#)
- [Research Tools : DNA & RNA tools](#)

For current licensing status, please contact Jeanine Burmania at jeanine@warf.org or 608-960-9846

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