

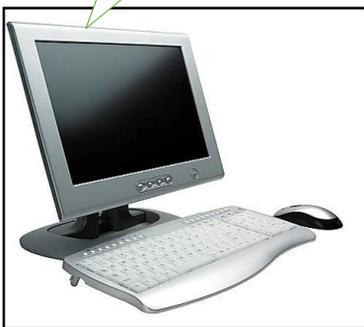


Dramatic Improvement In Micro-plate Assay Performance!

- Up to:
 - ✓ 100x Improvement in Sensitivity
 - ✓ 15x Acceleration of Reaction Kinetics
 - ✓ 25x Reduction in Sample and Reagent Consumption
- No Change To Workflow

Integrated Fluidics' new assay platform represents a true breakthrough in micro-titer plate assay performance. Electrodes incorporated into the base of the micro-plate enable the delivery of electrical impulses of specific amplitude and frequency. Precise control of the resulting electro-kinetic effects within each well enables molecular mixing, separation and concentration at the <math><5\mu\text{L}</math> scale.

What has, until now, been a passive, plastic reaction vessel is transformed into an active, user-controlled reaction management system – resulting in shorter assay turnaround times, lower cost and improved overall laboratory productivity.



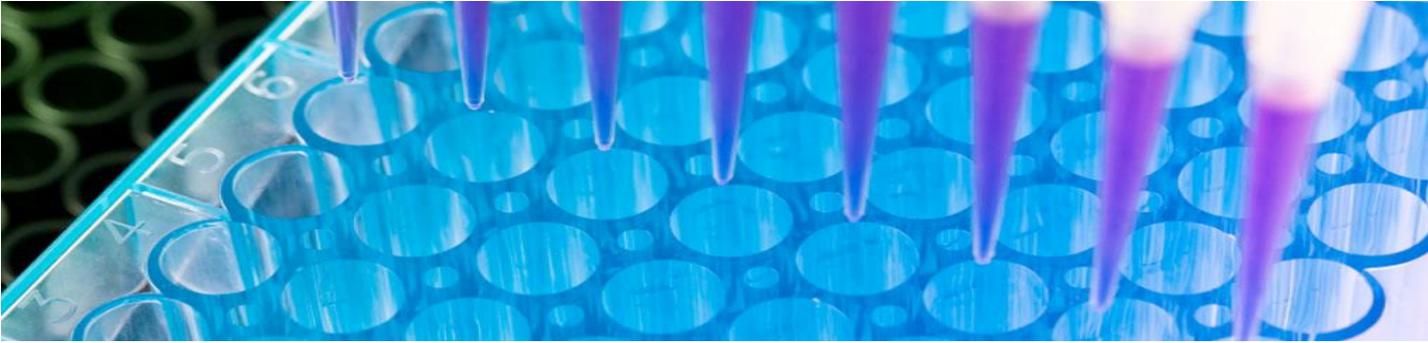
A simple software interface enables the operator to enter bioassay-specific parameters.



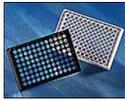
A software-driven, low-cost power supply generates bioassay-specific electrical impulses and delivers them to a temperature-controlled micro-plate stage.



Electrokinetically-enabled microtiter plates ("iPlates") **replace** conventional micro-plates as reaction vessels. Laboratory workflow is unchanged.



The "iPlate"



Conventional Bottomless Plastic Microtiter plate (96, 384, 1536 or 3456 Well)

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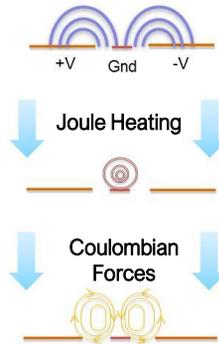
Printed Circuit Board - Copper with Gold Immersion

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The "iPlate", a Single-Use, Electro-kinetically-Enabled Disposable Microtiter plate

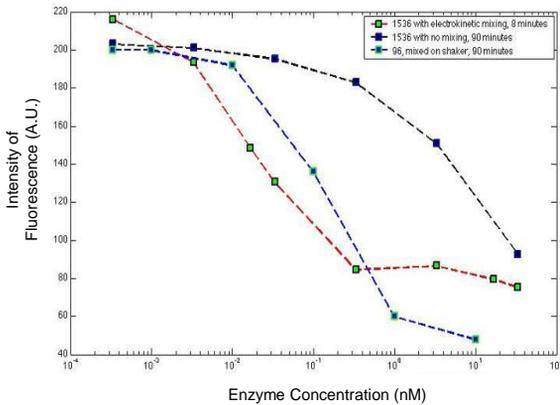
How It Works



elec-tro-ki-net-ic

".. of or relating to the motion of particles or liquids that results from or produces a difference of electric potential."

Merriam-Webster Dictionary

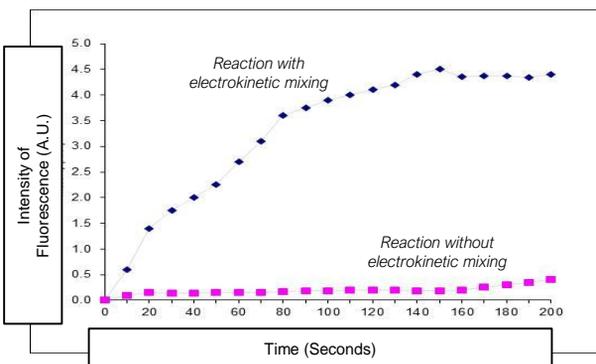


High Throughput Screening assays that require 100µL reaction volumes and take 90 minutes in a 96 well plate can be completed with 4µL reaction volumes in 8 minutes in a 1536 well plate, resulting in dramatic reductions in reagent consumption and cost.

Example shown: Kinase assay carried out in collaboration with Merck. Enhanced sensitivity, 15x acceleration in reaction kinetics and 25x reduction in reagent consumption (enzyme concentration).



Incubation times for hybridization of complementary strands of ssDNA can be reduced from many hours to a matter of minutes.



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