

# Induction Based Fluidics (IBF) flies liquids to targets for many purposes

IBF can energize liquid drops (not sprays) such that they 1. **launch** kinetically, (i.e. fly) to targets as they are 2. **directed** to the target of all types where upon landing they can be 3. **measured** using one circuit. IBF can fly liquids up, down, left or right across a massive dynamic range (nL, uL, pL and (fL?)) with as few as one source of energy without moving parts, joule heating or adverse electrochemistry like ESI. IBF can launch viscous liquids like serum, blood, and some glues. In fact, IBF is the most cost effective liquid handling tool that can dispense and treat liquids across the widest dynamic volumetric, viscosity range at the lowest cost per channel of any technique in the world. Unlike other techniques, that cost \$k1 per channel and vibrate expensive matter that breaks frequently, we vibrate electric fields that virtually never break and that can drive hundreds of channels. Also, as IBF shoots liquids in a straight line, we believe that IBF may replace ESI for MS sample introduction, as we can shoot 100% of samples into MS's as we did with a DART Accu TOF at Pittcon 2009 and with the US Army at Edgewood Arsenal, MD.

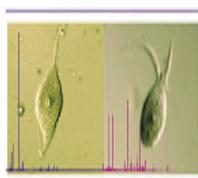
Shoot nLs onto human, other targets or **pull** nLs, pLs off !!! of a human, sample.

Excellent quality, accurate depositions, onto **into** targets. Different devices, single or N channels.

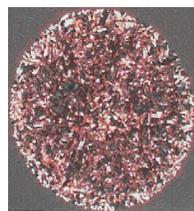


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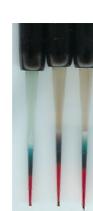
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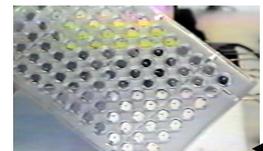
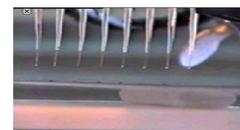
Single cell MALDI



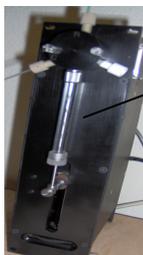
pL pen



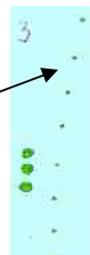
nL SPE.



IBF can morph most dispensers into non-touch nL/uL devices, at low per channel costs as it uses 1 source of E.



Many pumps can be morphed into non-touch nL/uL dispensing tools.



nL pipette



nL dispensers Cool Wave Devices X & VII



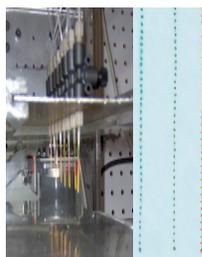
nL dispenser Cool Wave V

Append IBF to YOUR fluidic systems, e.g., Spark Holland's Alias.

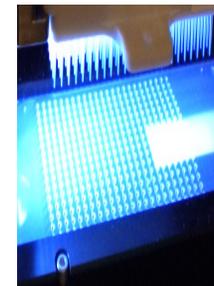


Shoot 100% of that sample into your DART Accu TOF MS, or other instruments!

Parallel LC/MALDI. Sciex offered to license.



384 channels fired in 1 msec. Fastest on planet!



1.0 msec !

