



Morph <u>YOUR</u> pump, platform into an ESI Ion Source, a MALDI Dispenser or a viscous liquid dispenser via patented IBF!

License our IBF technology and you'll realize new capabilities and market space at low costs!

Drew Sauter

nanoLiter LLC 217 Garfield Drive Henderson,NV 89074 USA 702-882-5413

Visit <u>nanoliter.com</u> adsauterjr@gmail.com

Induction Based Fluidics

Uses electric fields to non-touch dispense liquids from pipettes, syringes, chips and your PUMPS!

IBF morphs common devices (pipettes, syringes, chips and pumps) into non-touch dispensers of nanoliters and microliters quantities of even <u>viscous liquids</u>, like whole blood, serum, polymers, paint & some glues! Internationally unique ! (<u>IBF physics</u>.)

Why nanoLiters ?

- Using 100 nanoliters as compared to 1.0 microliter saves 90% of solvent costs! Makes experiments much safer.
- Saves solvent, sample disposal costs.
- Affords new capabilities like flying liquids UP! or in highly parallel manner!

IBF improves the sensitivity of mass spectrometry for ESI and MALDI!

Morphs common devices, (pipettes, microliter syringe and pumps) into the 21st Century version of their predecessors that can dispense non-touch.

Performance surpasses the most profitable products of Eppendorf, Gilson, Hamilton, Idexcorp and others and it has patented very valuable expendables!



nanoLiter Cool Wave© Syringe

<u>With your morphed pumps, platforms,</u> and devices, you can parallel dispense, N or 384 channels, non-touch, (here 150 nLs) in one millisecond for MALDI.



Using our IBF technology appended to a Roche 384 Polypipettor. IBF technology can be applied to single channel or highly parallel dispensing devices.

YOUR morphed pumps, can shoot cells, blood, urine into/near Mass Spectrometers, targets!

3 Drops into a MS + Spectra.



Spectra called "exciting" by America's greatest mass spectroscopist!



<u>4 second video clip.</u> 100% of drops, (not a spray!), enters the MS.



Cancer, disease cells Adjacent, healthy cells **YOUR** Pumps, can be merged w/patented IBF Tech for MALDI, ESI and dispensing apps, NOW!

Make great crystals!

Note: Liquids Fly And Are <u>Directed</u> To Targets !!!

384 Channel Parallel Pipette dispense, video. Sciex offered to license for LC/MALDI.



Syringe into a MS.



Dispense viscous liquids



Makes excellent crystals.





With your morphed pump, you can fly liquids from "anything" to "anything."

Click here to see the video.



Flying 300 nLs into an ultrasonically levitated 3.0 uL in 2 milliseconds.



Nanoliter

Pump Application Summary

IBF technology can be appended to <u>YOUR PUMPS</u> or <u>YOUR FLUIDIC</u> <u>PLATFORM</u>, making them

- * A non-touch nL/uL dispenser for MALDI,
- * An ESI ion source, !!!, and a
- * general purpose non-touch nL/uL dispenser for *viscous liquids!*

Consider licensing IBF technology, non-exclusively that can morph your existinng pumps or platforms into NEW ESI ion source, MALDI and viscous liquid dispensing market spaces!



Contact: Drew Sauter, nanoLiter LLC, 217 Garfield Drive, Henderson, NV USA 89074. Nanoliter.com, adsauterjr@gmail.com, 702-882-5413