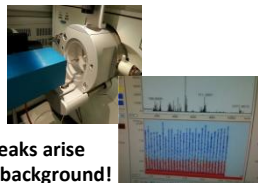


DROPLETS ARE HOT for ESI, MALDI, SIMS, LDI, TLC, Viscous Liqs, Blood, SPE via SAME DEVICE!



IBF APPLICATIONS.

LC/MALD Sciex project for Dr. Bill Davidson. Offer to license.

MALDI, 20x Enhanced Sensitivity, Bradykinin. T. Tu, M. Gross, et al @ Wash. U @ St. Louis, 07/8 JASMS.

Single Cell MALDI, Wisconsin. ACS pub. O. Stretton.

100% Efficient ESI sample introduction with Cody JEOL & Grange EPA., 2009, 2010.

Infusion and LC/ESI/MS Cell/Cellular liquid ESI sample introduction, Grange.

Sensitive SIMS for RDX and cocaine per NIST publication in RCM.

Published excellent polymer crystals data for MALDI at USF, Prof. J. Harmon, et al, Polymer & JASMS.

384 channel parallel dispense in 1 ms, Douglas Scientific.

Lanthanide, Actinide metals MS analysis WITHOUT a plasma! INL, G. Groenewold, AC/2013.

Study Wall-less kinetics, Illinois, Prof. A. Scheeline. AC, 2014.

17.5x improved MALDI sensitivity for proteins, peptides, Genentech, V. Katta, at nanoliter.com.

PTM of a tubin identified in first attempt analyzing actual brain cancer samples at NIH, A. Yergey, Private comm.

US Army Project, Natick, MA, IBF for Cooling the Warfighter. Natick, MA.

Millisecond robotic LC/MALDI dispense, Spark Holland.

Great oligonucleotide (Infusion and LCMS) data, Ross & Limbach, Cincinnati. Paper submitted 6/15.

ESI/MS droplet infusion of neurotoxins, Allergan. (Much safer than spraying!)

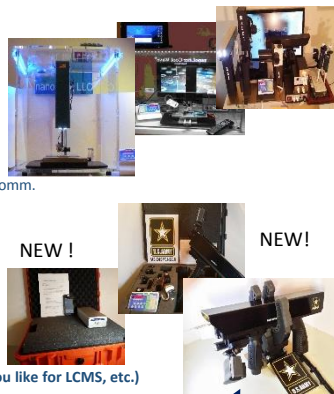
US Army, Aberdeen Proving Grounds, MD, handling nL and MS analyzing nerve agents.

Pseudo 3D "printing" polyvinyl alcohol for fluidic circuit encapsulation. Abbott. 2013.

Rapid infusion of small molecules for Merck Rahway, NJ R&D at Caltech, 2014.

NEW ! Computer Cell Phone Programmable nL Wave for IBF LCMS, Infusion, Dispensing R&D!

(Vary everything! Gaussian surface, energy; timing; locale; wave; data rate and more! We'll consult if you like for LCMS, etc.)



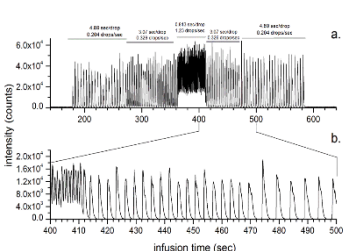
Peer Review References at <http://nanoliter.com/references2014.pdf>

Physics, etc. nanoLiter.com. 1st Patent, 2000 w/ pats., pending pats. Drew Sauter, 217 Garfield Dr., HD, NV 89074, adsauterjr@gmail.com, 702-882-5413

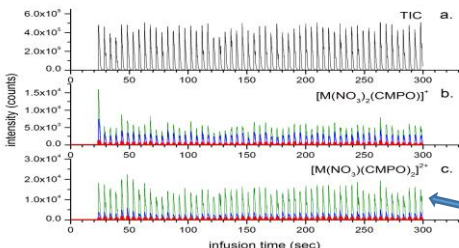
Customers: U's of Ill, WI, CA, Cinn., MUSC, Wash. U., USF, USU, US Army APG, ECBC and Natick, Abbott, Biogen Idec, Genentech, Amgen, Hitachi, Allergan, Sciex, Spark, Douglas, NIH, NIST, USDOE INL, Ga Tech, UNH, Duquesne .

Fastest (ms), Most Efficient (100%) & Precise MS Sample Introduction System In The World! ESI, MALDI and Other Sample Prep via One IBF Device.

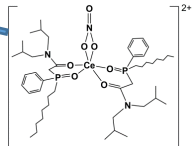
W, w/out a funnel. Resurrect traps! Get std ESI spectra for Oligo's, Drugs, Proteins, Lanthanide/Actinides to fgs! ags?



Ca. 0.5, 2.9, and 4.9 s/drop

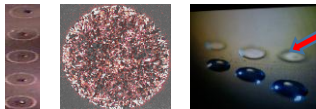


Positive ion profiles generated by individual drops. a. Total ion current. b. $[M(NO_3)_2(CMPO)]^{2+}$. c. $[M(NO_3)(CMPO)_2]^{2+}$. Blue = Ce³⁺, Green = Tb³⁺, Red = Lu³⁺.

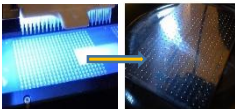


Same Device Makes Excellent MALDI, SIMS, LDI Crystals + TLC & More!

Use of nLs increases sensitivity for MALDI, SIMS & LDI by 10-100x Literally!



Lo 3D
Printing!?



Parallel dispense, 384
channels, in 1 ms!

Dispenses even viscous
liquids non-touch, in
one millisecond!

