



nanoLiter dispensers and Induction Based Fluidics users have.....

Demoed 100% introduction efficient for LC/MS of oligonucleotides with major university, paper submitted.

Dispensed in milliseconds, seconds over two days, the determinations of liquids, non-touch with 100% efficiency into various ToF's and ion traps. Partially published in June 2013 Analytical Chemistry with Idaho National Lab for CMPO chelates of entire Lanthanide series. In one two hour period, the entire Lanthanide series in positive and negative ion mode was analyzed making hundreds of determination/30 solutions.

Published single cell MALDI (U. of Wisconsin).

Published improved MALDI sensitivity by ca. 10 to 20x for Bradykinin, proteins, peptides and precision by 3 to 20x (Washington U. at St. Louis and Genentech, See nanoliter.com/contactus.htm).

Published how to make excellent MALDI crystals for analysis of proteins, peptides, polymers (USF).

Published improved SIMS sensitivity for detection of RDX and cocaine by ca. 10 to 100x (NIST).

Improved the sensitivity of DART for drugs of abuse by ca. 10 to 100x, literally (JEOL).

Made excellent crystals for enhanced analysis of polymers (USF, others).

Made electrets, i.e., charged polymeric balls and charged frozen charged nanoliter-sicles. (USF and nanoLiter LLC. See youtube.com/adsauterjr video)

Performed tissue MALDI (MUSC) ,LC/MALDI (Sciex offered to license.), bacteria MALDI analysis (NIH).

Identified PTM's of tublin in actual brain cancer samples (NIH).

Dispensed viscous liquids: whole blood; serum; glues onto human subjects; microfluidic objects (Abbott).

Dispensed 100% of liquids samples into LC/ESI/MS, MS/MS, derivatives, (EPA/LV, Allergan, Idaho NL).

Spatially, temporally concentrate samples for TLC, IR, MS, in spectrochemical mixing cells for analysis of neurotoxins (Allergan, US Army).

Shot cellular liquids into ESI/ToF MS (EPA).

Human blood dispensing, non-touch in the nL, uL regime via pipette/MS (BD).

Non-touch dispensed nLs of paint from a pipettes. (British firm.)

Made polymeric wafers to encase chips (Abbott).

Fast robotic msec LC/MALDI dispensing onto/into targets (Spark Holland and Sciex.).

Developed fluidics IBF tool to cool the warfighter by flying liquids off of people (Army).

Dispense viscous liquids and agents into MS's and onto targets including humans (Army, ECBC.).

Published, dispensed millisecond sample introduction of entire Lanthanide series, in +/- ev (USDOE).

Did 384 parallel nL dispensing from Roche 384 pipetter in 1 millisecond (Douglas).

Flew nanoliters into levitated microliters with Professor Scheeline and students (U of Illinois).

MS analyzed Li+ from operating battery (USDOE).

Demonstrated that one circuit can be used for LC/MALDI & LC/ESI. Device allows MS/MS multiplexing, millisecond sample throughput and potentially single molecule FT/MS detection.

See more at <http://www.youtube.com/adsauterjr> at nanoliter.com. Contact Drew Sauter, President, [nanoLiter LLC](http://nanoliter.com) ,217 Garfield Drive, Henderson, NV 89074, 702-896-5413p 702-882-5413c, adsauterjr@gmail.com