nanoLiter Cool Wave MS Dispenser, Starting at $4.99k*

ESI  Same Device  MALDI

100% ESI efficient, "all in" IBF technology

Excellent MALDI crystals, LO 3D Print!
Harmon et al USF, JASMS 5/09, Polymer 5/09

Various configurations of an IBF dispenser. One nanoLiter Cool Wave device can be used to make excellent MALDI crystals or shoot 100% of your sample into your ESI source!


One Device: Major sensitivity, reproducibility increases for ESI and MALDI.

Spraying chemicals, neurotoxins, poisons & radiochemicals is dangerous & not electrostatically bright! Shoot drops like this...........

Directly analyze blood, cells, serum, bio-fluids, agents, radiochemicals, products and viscous or any liquid. Observe ESI mass spectra.
Study non-covalent interactions, HDX, kinetics, ionization, Lanthanides, Actinides, nano-titrations, polymers, more.
Manipulate liquids for PCR, TLC, SIMS, DART, DESI, std. prep., microscopy, spectroscopy, and parallel dispensing. Miser expensive labeled standards, evidence, etc.

NEW!  VERY RAPID FIRE DROPLET GENERATOR for FIA, LC/ESI/MS, LC/MALDI Analysis & R&D.
Fastest (msec), most introduction efficient (100%) LC/ESI, LC/MALDI programmable energy supply in world.

Request a quote.

See G. Groenewold, A. Sauter & A. Sauter, June, Analytical Chemistry 2013, Radiochemical analysis of Lanthanide series elements of interest in USDOE work. Fastest, most efficient in the world.

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Why nanoLiters?

Improve sensitivity of MALDI, DART, DESI, SIMS, LDI 10 to 100x...LITERALLY!

Nanoliter Cool Wave® simple, inexpensive, sample handling platform & technology

Also, manipulate and spatially, temporally concentrate samples for TLC, MS, IR, NMR, PCR; electrophoresis, fluorescence, crystalization & more.

Dispense viscous liquids non-touch (glycerol, blood, serum, ionic liquids, glues) for forensics, defense, medical, pharma, energy, proteomics, iomics, apps.

Save expensive labeled stds. Use for blood spot dispensing or DNA sample prep. Non-touch titrations with guanidine, urea for proteomics.

Make charged matter like nanoLiter-sicles, polymers. Fly liquids up, roll and pick up liquids with E fields as shown on youtube videos @ ch: adsauterjr.

Counterintuitive, real! 20 nLs best !!!

50 nLs = higher S/N !

0.5 uL Eppendorf pipette = Noise!

Great morphology  Single cell MALDI  nLs into tape, 1 msec

100 nL PMMA, Harmon, et al, JASMS 5/09 & Polymer 6/09


Sauter & Sauter, LabAuto 2010/11, Pats. Pending.

New liquid handling tools for MS & all labs.

Unique R&D. Shoot liquids, 100% into TOF MS systems in a straight line or onto targets like plants, humans, microtiter plates, instruments. Pull liquids/solids off targets for new sampling applications. Tool for bacteria MALDI identification, cells, airport security, HSL and defense.

Save precious samples, and $$$ on solvents. Reduce waste, chemical, biochemical & radiochemical exposure.

Go green as you improve sensitivity. PEREFCT !

Worlds fastest 96/384/1536 channel dispense in 1.0 msec!

Best DART, DESI, SIMS, MALDI, LDI sample intro/prep tool.

Get major increases in sensitivity, precision using nanoLiters! Reproducible dn/dt into an MS is required for precise di/dt out! Shoot 100% of your nL sample into some TOF MS systems!
