

# Mass Media

## JEOL

Mass Spectrometry News and Applications  
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### AutoDART-96 Speeds Repetitive Open Air Mass Analysis

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The AutoDART provides you with the capability to complete analysis of large numbers of samples for the AccuTOF-DART from sources ranging in scale from LC fraction collection tubes, to solids, to aerosol sprayed on sampling tips. In a partnership with LEAP Technologies we have integrated the DART source to the popular CTC HTS autosampler. This allows repetitive analysis of fractions from 96-well titer plates, or samples dried on surfaces. As a means to enable high throughput analysis we also have available DIP-it Sampler tips which come in 96-well format holders for ready deployment on the robot deck. DIP-it Samplers are a fusion of plastic pipette tips with glass sampling rods, providing the optimum configuration for sample pick-up and ionization at temperatures ranging from ambient to 450°C as is common with the DART experiment. For additional information please contact your local JEOL sales representative.

 Send to a Colleague

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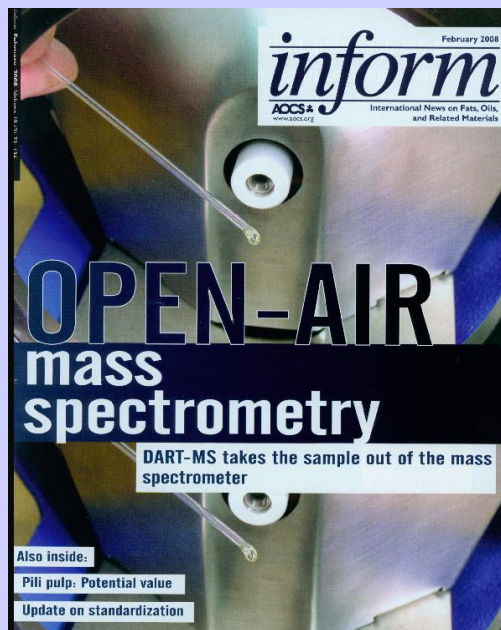
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## Open Air Oil Analysis -February Cover Story in AOCs Publication

A new article in the February 2008 issue of Inform (International News on Fats Oils and Related Materials) describes the application of open air mass spectrometry to the analysis of oils, fats, and surfactants. The AccuTOF-DART has detected many compounds in oils including phytosterols, alkaloids, triglycerides, and small molecules. The sealed end of a disposable melting point tube was dipped into the neat or hexane solutions of olive oil, blended oil, and sesame oil and then the coated tube was dangled in front of the DART ion source; mass spectra were obtained within seconds.

Inform is an American Oil Chemists Society (AOCS) publication. For more information on AOCS, visit [www.aocs.org](http://www.aocs.org).

## New TLC Plate Holder for AccuTOF-DART Mass Spectrometer



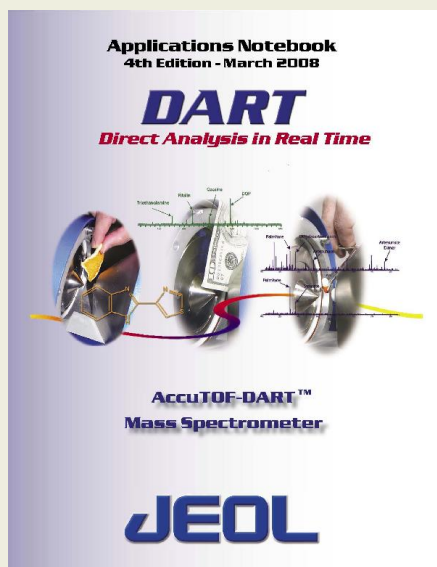
AccuTOF-DART speeds analysis of thin-layer chromatography (TLC) plates. The ability to obtain mass spectra instantaneously from substance zones

## Tutorials and Applications Notes

Bookmark [www.jeolusa.com](http://www.jeolusa.com) for complete access to useful mass spec [Tutorials](#) and [applications notes](#).

The tutorials have been updated and include useful reference tables for day-to-day DART operation.

We continually add to our applications notes.



## New Applications Notebook

The 4th Edition of Applications Notes for the AccuTOF-DART is now available. To download, click on the image.

allows the chemist to immediately identify spots on the TLC plates. Within seconds, mass spectra of substances adsorbed on a plate are obtained directly without any additional preparation. A TLC plate holder helps automate analysis of the spots for high throughput analysis.

## Inadvertent Contamination

*Flame retardants are seeping from research bases into Antarctica's pristine environment*

From *C&E News* February 4, 2008

by Sarah Everts

**A PRELIMINARY INVESTIGATION** of wastewater sludge and dust samples from U.S. and New Zealand research bases in Antarctica reveals unexpectedly high concentrations of polluting flame retardants, at levels comparable with those in U.S. urban centers.

[Robert C. Hale](#) of the Virginia Institute of Marine Science and his colleagues checked whether the pollutants had seeped into the local ecosystem. Their preliminary measurements reveal a PBDE concentration of 2 ppm in fish and aquatic invertebrates near the bases (*Environ. Sci. Technol.*, DOI: [10.1021/es702547a](https://doi.org/10.1021/es702547a)). These levels rival those found in fauna near North American cities.

[Read the full story.](#)

## AccuTOF-DART Bibliography

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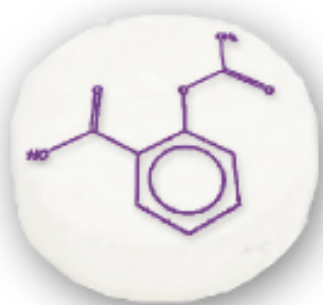
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### Forensics

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## DART™ Analysis of Aspirin: Correcting a Misapprehension



Mass spectra of aspirin measured on a JEOL AccuTOF-DART™ mass spectrometer under the correct operating conditions are shown here. All assignments for the mass spectral peaks were confirmed by exact mass measurements. Read the application note [here](#).

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### Biological

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### Food, Flavors and Fragrances

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Kpegba, K., et al. **Analysis of Self-Assembled Monolayers on Gold Surfaces Using Direct Analysis in Real Time Mass Spectrometry.** *Anal. Chem.*, 79, 14, 5479-5483, **2007**. 10.1021/1c062276g.

### Miscellaneous

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