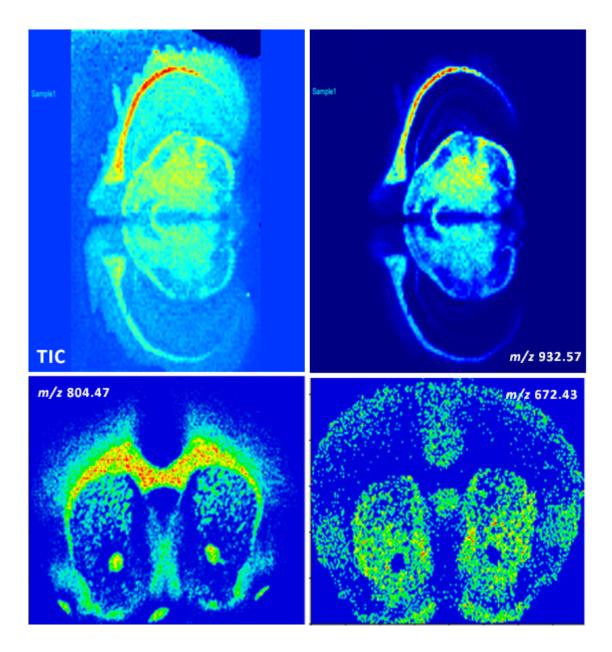
OCTOBER-NOVEMBER 2017

MassMedia

PETROLEUM | ENVIRONMENTAL | FOOD | FORENSICS | MATERIALS | GAS MONITORING



Mass Analysis and Imaging Combine in MALDI SpiralTOF $^{\mathsf{TM}}$



MALDI* imaging - a powerful mass spectrometry technique - is used to assess the distribution of proteins, peptides, lipids, drugs, and metabolites in tissue specimens, as well as compound distribution in organic materials.

JEOL's <u>MALDI Imaging SpiralTOF Mass Spectrometer</u> offers unique capabilities that include imaging of samples with irregular surfaces. Because small variations in the sample surface are only a tiny fraction of the SpiralTOF's 17-meter flight path, it is possible to maintain high mass-resolving power for the entire image. This is critical if you need to know the accurate spatial distribution of a specific compound without interference from background interference.

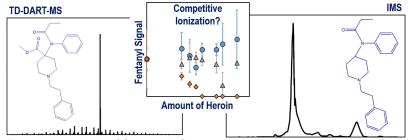
With "Perfect Focusing" ion optics, there is no loss in ion transmission due to beam divergence. High resolution mass spectra are acquired for the entire image.

In our new Applications Note, high-resolution mass spectra are collected for the entire image in each of the examples ranging from lipids in mouse brain tissue to Organic Electroluminescent Panels and laser desorption ionization of ballpoint inks.

*MALDI is an acronym for matrix-assisted laser desorption/ionization mass spectrometry.

New and Newsworthy JEOL Mass Spec Articles and Publications

Quantitation of Anthocyanins in Elderberry Fruit Extracts and Nutraceutical Formulations with Paper Spray Ionization Mass Spectrometry. Paper spray ionization has been used to detect and quantify the levels of anthocyanin levels in extracts of fresh and dried elderberries, and elderberry stems, as well as three commercially available nutraceutical formulations.



Rapid detection of fentanyl, fentanyl analogues, and opioids for on-site or laboratory based drug seizure screening using thermal desorption DART-MS and ion mobility spectrometry. Detection of these compounds in the presence of heroin is readily achievable, down to 0.1% fentanyl by mass with TD-DART-MS. Read the full article here: http://go.jeolusa.com/e/234012/2fBLKwe/36ffd/81807863? hee LBhZNZEgw0uvNUN_1yBZQSq7tp7dxABswB_BlrY5s

<u>Scientists are Using this Collection of Wood Samples to Combat Illegal Logging.</u> JEOL's AccuTOF-DART Mass Spectrometer is "a powerful tool for customs agents, law enforcement, the judiciary, lawmakers and others grappling with the environmental, cultural and economic devastation caused by illegal logging and trade in precious hardwoods and timber."

<u>Corpse Insects Analyzed by High-Res Mass Spec, Accelerating Death Investigations.</u> Prof. Rabi Musah, SUNY Albany students Justine Giffen and Cameron Longo, and colleague Jennifer Rosati at the John Jay College of Criminal Justice, published their findings in the latest issue of the journal Analytical Chemistry. Open Access Article: <u>Species Identification of Necrophagous Insect Eggs Based on Amino Acid Profile Differences Revealed by Direct Analysis in Real Time-High Resolution Mass Spectrometry</u>

JEOL Periodic Chart Poster for Mass Spectrometry

Our 24" x 36" poster shows exact masses and abundances of natural isotopes for each element.

To request a printed poster click here.

Upcoming Conferences and Events

Southwestern Association of Toxicologists Fri Nov 3 - Sat Nov 4, 2017

Location: San Antonio, TX

Event Web Site: http://go.jeolusa.com/e/234012/page-1417923/36ffq/81807863?

h=e LBhZNZEgw0uvNUN 1yBZQSq7tp7dxABswB BlrY5s

Northeast Association of Forensic Scientists (NEAFS) Tue Nov 7 - Fri Nov 10, 2017

Location: Pocano Manor, PA

Event Web Site: http://go.jeolusa.com/e/234012/index-php-neafs-annual-meeting/36ffs/81807863?

h=e LBhZNZEgw0uvNUN 1yBZQSq7tp7dxABswB BirY5s

SERMACS 2017 Southeastern Regional Meeting of ACS Tue Nov 07 - Sat Nov 11, 2017

Location: Charlotte, NC

Event Web Site: http://go.jeolusa.com/e/234012/2017-11-02/36ffv/81807863?

h=e_LBhZNZEgw0uvNUN_1yBZQSq7tp7dxABswB_BIrY5s

ACS – Greater Houston Society 100th Anniversary Celebration Fri Nov 10, 2017

Location: Houston, TX Event

Web Site: http://go.jeolusa.com/e/234012/2017-11-02/36ffx/81807863?

h=e LBhZNZEgw0uvNUN 1yBZQSq7tp7dxABswB BlrY5s

Eastern Analytical Symposium and Exhibition Mon Nov 13 - Wed Nov 15, 2017

Location: Crowne Plaza - Plainsboro, NJ - Conference Center - Wilson B03 Event Web Site: http://go.jeolusa.com/e/234012/2017-11-02/36fg2/81807863? http://go.jeolusa.com/e/234012/2017-11-02/36fg2/81807863? https://go.jeolusa.com/e/234012/2017-11-02/36fg2/81807863? https://go.jeolusa.com/e/234012/2017-11-02/36fg2/81807863? https://go.jeolusa.com/e/234012/2017-11-02/36fg2/81807863? https://go.jeolusa.com/e/234012/2017-11-02/36fg2/81807863? https://go.jeolusa.com/e/234012/2017-11-02/36fg2/81807863? https://go.jeolusa.com/e/234012/2017-11-02/36fg2/81807863 https://go.jeolusa.com/e/234012/20178 <a href="https://g

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JEOL Imaging and Analysis Solutions are Legendary! Click on the icons to learn more about our products.



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