



The U.S. Attorney General has determined that the publication of this periodical is necessary in the transaction of the public business required by the Department of Justice. Information, instruction, and disclaimers are published in the January issues.

- MAY 2011 -

SELECTED REFERENCES

[The Selected References section is a compilation of recent publications of presumed interest to forensic chemists. Unless otherwise stated, all listed citations are published in English. Abbreviated mailing address information duplicates that which is provided by the abstracting service. Patents and Proceedings are reported only by their *Chemical Abstracts* citation number. For full text copies of any of the articles listed, you may email the DEA Library at dea.library-at-usdoj.gov.]

1. Nakajima J, Takahashi M, Seto T, Suzuki J. **Identification and quantitation of cannabimimetic compound JWH-250 as an adulterant in products obtained via the Internet.** *Forensic Toxicology* 2011;29(1):51-55. [Editor's Notes: Presents title study. Contact: Division of Drugs, Tokyo Metropolitan Institute of Public Health 3-24-1 Hyakunin-cho, Shinjuku-ku, Tokyo 169-0073, Japan.]
2. Rana V, Canameres MV, Kubic T, Leona M, Lombardi JR. **Surface-enhanced Raman spectroscopy for trace identification of controlled substances: morphine, codeine, and hydrocodone.** *Journal of Forensic Sciences* 2011;56(1):200-207. [Editor's Notes: Presents title study. Contact: Department of Forensic Science, John Jay College of Criminal Justice, New York, NY 10019, USA.]
3. Uchiyama N, Kawamura M, Kikura-Hanajiri R, Goda Y. **Identification and quantitation of two cannabimimetic phenylacetylindoles JWH-251 and JWH-250, and four cannabimimetic naphthoylindoles JWH-081, JWH-015, JWH-200, and JWH-073 as designer drugs in illegal products.** *Forensic Toxicology* 2011; 29(1):25-37. [Editor's Notes: Presents title study. Contact: National Institute of Health Sciences 1-18-1 Kamiyoga, Setagaya-ku, Tokyo 158-8501, Japan.]

4. Westphal F, Junge T, Girreser U, Stobbe S, Perez SB. **Structure elucidation of a new designer benzylpiperazine: 4-Bromo-2,5-dimethoxybenzylpiperazine.** Forensic Science International 2009;187(1-3):87-96. [Editor's Notes: Presents title study. Contact: Landeskriminalamt Schleswig-Holstein, 24116 Kiel, Germany.]

Additional References of Possible Interest:

1. Muccio Z, Jackson GP. **Simultaneous identification and $\delta^{13}\text{C}$ classification of drugs using GC with concurrent single quadrupole and isotope ratio mass spectrometers.** Journal of Forensic Sciences 2011;56(S1),S203-S209. [Editor's Notes: In this study, $\delta^{13}\text{C}$ values of six cocaine samples were identified and classified using a single quadrupole mass spectrometer and an isotope ratio mass spectrometry (IRMS) as simultaneous gas chromatography detectors. Our instrument modification is simple to use and is useful (i) when the sample is of limited size or can only be injected once, (ii) to help identify peaks in a complicated IRMS chromatogram, and (iii) to help differentiate very simple systems when impurity profiling is not possible. The EI-MS confirmed the identity of cocaine in each sample. The IRMS data distinguished 12 of the 15 possible pair-wise comparisons at the 95% CL. Three samples could not be differentiated by their $\delta^{13}\text{C}$ ratios for cocaine. ANOVA demonstrated that the measurement variance was consistently larger than the sample variance. As the $\delta^{13}\text{C}$ values clearly show, this technique enables the exclusion of a potential common source even when two samples have otherwise identical chemical and physical properties. Contact: Center for Intelligent Chemical Instrumentation, Department of Chemistry and Biochemistry, Ohio University, Athens, OH 45701-2979, USA.]
2. Salter TL, Green FM, Gilmore IS, Seah MP, Stokes P. **A comparison of SIMS and DESI and their complementarities.** Surface and Interface Analysis 2011; 43(1-2):294-297. [Editor's Notes: Presents title study. Contacts: National Physical Laboratory (NPL), Teddington, Middlesex TW11 0LW, UK.]
3. Sardela VF, Sardela PDO, Pereira HMG, Aquino Neto FR. **Consequences of the formation of 3,4-dimethyl-5-phenyl-1,3-oxazolidine on the analysis of ephedrine in urine by gas chromatography and a new method for confirmation as N-trifluoroacetyl-O-t-butyl dimethylsilyl ether derivatives.** Journal of Chromatography, A 2011;1218(9):1266-1272. [Editor's Notes: The compound 3,4-dimethyl-5-phenyl-1,3-oxazolidine can appear as an artifact during the gas chromatographic analysis of ephedrine. Its presence is a risk for doping control and forensic analyses. An evaluation of its formation showed the possibility of a false positive for ephedrine, a false negative for pseudoephedrine, and increased uncertainty in the quantitative approach. The use of N-TFA-O-TBDMS derivatives prior to GC analysis gives improved chromatographic resolution, allowing for the separation of ephedrine. The differences in the mass spectra of the N-TFA-O-TBDMS derivatives are also more pronounced. Contact: Universidade Federal do Rio de Janeiro, Ilha do Fundao, Avenida Athos da Silveira Ramos, 149, LAB DOP-LADETEC, Instituto de Quimica, Rio de Janeiro, RJ 21941-909, Brazil.]

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Journal of Chromatography B (Microfilm) 1994; Vol. 652 to 2004; Vol. 813
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THE DEA FY 2011 STATE AND LOCAL FORENSIC CHEMISTS SEMINAR SCHEDULE

The FY 2011 schedule for the State and Local Forensic Chemists Seminar is as follows:

September 12-16, 2011

The school is open only to forensic chemists working for law enforcement agencies. It is intended for chemists who have completed their agency's internal training program and have also been working on the bench for at least one year. There is no tuition charge. The course is held at the Hyatt Place Dulles North Hotel in Sterling, Virginia (near the Washington/Dulles International Airport). A copy of the application form is reproduced on the last page of this issue of *Microgram Bulletin*. Completed applications should be mailed to the Special Testing and Research Laboratory at 22624 Dulles Summit Court, Dulles, VA 20166. For additional information, email [DEA-Forensic Chemist Seminar -at- usdoj.gov](mailto:DEA-Forensic-Chemist-Seminar-at-usdoj.gov) (replace -at- with @).

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SCIENTIFIC MEETINGS

Title: 40th Annual Meeting of MAFS
Sponsoring Organization: Midwestern Association of Forensic Scientists
Inclusive Dates: September 19-23, 2011
Location: Weston Hotel at Yorktown (Lombard, IL)
Contact Information: See website
Website: www.mafs.net

Title: 2011 Northwest Association of Forensic Scientists Meeting
Sponsoring Organization: Northwest Association of Forensic Scientists
Inclusive Dates: September 25-30, 2011
Location: Hotel Murano (Tacoma, WA)
Contact Information: See website
Website: www.nwafs.org

Title: Southwestern Association of Forensic Scientists Annual Conference
Sponsoring Organization: Southwestern Association of Forensic Scientists
Inclusive Dates: October 3-7, 2011
Location: Houston Marriott at Texas Medical Center (Houston, TX)
Contact Information: See website
Website: www.swafs.us

Title: The 2011 Northeastern Association of Forensic Scientists Annual Meeting
Sponsoring Organization: Northeastern Association of Forensic Scientists
Inclusive Dates: November 1-5, 2011
Location: Hyatt Regency Hotel & Spa (Newport, RI)
Contact Information: See website
Website: www.neafs.org

DEA State and Local Forensic Chemist Seminar Application

Name: (PRINT NAME EXACTLY AS IT IS TO APPEAR ON CERTIFICATE)	Title:
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Employer:

Your Office Mailing Address (include city, state, and zip code):	Length of Service:
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Business Telephone: () -	Business Fax: () -	Date of Application:
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Email Address:

Education

College or University	Degree	Major

Please Check Which Techniques or Equipment Are Used in Your Laboratory

Color Tests	UV
Column Chromatography	IR
Microcrystal Tests	CE
Thin Layer Chromatography	GC/MS
GC	Other (please specify)
HPLC	Other (please specify)

Indicate Analytical Problem(s) Nominee Would Like to Have Covered:

Choice of Seminar Dates:

1st Choice: _____ 2nd Choice: _____

Laboratory Chief/Director:

Printed Name: _____ Signature: _____

Title: _____ Date: _____

Phone: _____