



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.

- JULY 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. Ernst L, Schiebel H, Theuring C, Lindigkeit R, Beuerle T. **Identification and characterization of JWH-122 used as new ingredient in “Spice-like” herbal incenses.** *Forensic Science International* 2011;208(1-3):e31-e35. [Editor’s Notes: Presents title study. Contact: Chemistry Department, Central NMR Laboratory, Technische Universitaet Braunschweig, Hagenring 30, Braunschweig 38106, Germany.]
2. Moran CL, Le V, Chimalakonda KC, Smedley AL, Lackey FD, Owen SN, Kennedy PD, Endres GW, Ciske FL, Krameer JB, Kornilov AM, Bratton LD, Dobrowolski PJ, Wessinger WD, Fantegrossi WE, Prather PP, James LP, Radominska-Pandya A, Moran JH. **Quantitative measurement of JWH-018 and JWH-073 metabolites excreted in human urine.** *Analytical Chemistry* 2011;83(11)4228-4236. [Editor’s Notes: Presents a LC-MS/MS method for the quantitative analysis of JWH-018, JWH-073, and several potential metabolites of each at urinary concentrations. The analytical procedure has high capacity for sample throughput and does not require solid phase or liquid extraction. Contact: Arkansas State Crime Laboratory, Little Rock, AR 72205, USA.]

3. Parr MK, Opfermann G, Geyer H, Westphal F, Soennichsen FD, Zapp J, Kwiatkowska D, Schaenzer W. **Seized designer supplement named "1-Androsterone": Identification as 3 β -hydroxy-5 α -androst-1-en-17-one and its urinary elimination.** Steroids 2011;76(6):540-547. [Editor's Notes: This study reports the detection of a steroid in a product seized by the State Bureau of Criminal Investigation Schleswig-Holstein, Germany. The product "1-Androsterone" of the brand name "Advanced Muscle Science" was labeled to contain 100 mg of "1-Androstene-3 β -ol,17-one" per capsule. The product was analyzed underivatized and as bis-TMS derivative by GC/MS. The steroid was identified by comparison with chemically synthesized 3 β -hydroxy-5 α -androst-1-en-17-one, prepared by reduction of 5 α -androst-1-ene-3,17-dione with LS-Selectride, and by NMR. Semi-quantitation revealed the amount of 3 β -hydroxy-5 α -androst-1-en-17-one in the capsules was as labeled. Contact: Center for Preventive Doping Research, Institute of Biochemistry, German Sport University Cologne, Am Sportpark Muengersdorf 6, Cologne 50933, Germany.]

Additional References of Possible Interest:

1. Cheng S, Huang M, Shiea J. **Thin layer chromatography/mass spectrometry.** Journal of Chromatography A 2011;1218(19):2700-2711. [Editor's Notes: A review of methodologies for direct and indirect analysis of analytes on TLC plates by mass spectroscopy. Contact: Institute of Forensic Medicine, Ministry of Justice, Taipei, Taiwan.]
2. Holzgrabe U, Malet-Martino M. **Analytical challenges in drug counterfeiting and falsification - The NMR approach.** Journal of Pharmaceutical and Biomedical Analysis 2011;55(4):679-687. [Editor's Notes: Methods which are orthogonal to the separation methods used in the pharmacopoeias are necessary to find counterfeit pharmaceuticals. Beside Raman, NIR spectroscopy, and powder X-ray analysis, NMR spectroscopy is well suited to identify and quantify a drug and its related substances. DOSY experiments are suitable to identify the ingredients of formulations and therefore to identify wrong and/or additional ingredients. This review gives an overview of the application of quantitative NMR spectroscopy and DOSY NMR in anticounterfeiting. Contact: Institute of Pharmacy and Food Chemistry, University of Wuerzburg, Am Hubland, Wuerzburg 97074, Germany.]
3. Van Eenoo P, Van Gansbeke W, De Brabanter N, Deventer K, Delbeke FT. **A fast, comprehensive screening method for doping agents in urine by gas chromatography-triple quadrupole mass spectrometry.** Journal of Chromatography A 2011;1218(21):3306-3316. [Editor's Notes: The development and validation of a fast gas chromatography/tandem mass spectrometric method for the detection of a wide range of doping agents is described. The classes of substances that can be detected by this method include anabolic steroids, β 2-agonists, stimulants, narcotics, hormone antagonists and modulators, and β -blockers. Contact: Doping Control Laboratory (DoCoLab), Ghent University (UGent), Technologiepark 30, Zwijnaarde B-9052, Belgium.]

4. Zamengo L, Frison G, Gregio M, Orru G, Sciarrone R. **Determination of illicit drugs in seized materials: Role of sampling and analysis in estimation of measurement uncertainty.** Forensic Science International 2011;208(1-3):108-123. [Editor's Notes: Presents title study. Contacts: Laboratory of Environmental Hygiene and Forensic Toxicology, Department of PreventionVeneziana, Regione Veneto, p.le San Lorenzo Giustiniani 11/E int.2 30174 Venezia Mestre ULSS12, Italy.]

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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 @).

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: _____