

MICROGRAM BULLETIN

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 can be found at www.dea.gov.

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@usdoj.gov.

1. Choi H, Heo S, Kim E, Hwang BY, Lee C, Lee J. **Identification of (1-pentylindol-3-yl)-(2,2,3,3-tetramethylcyclopropyl)methanone and its 5-pentyl fluorinated analog in herbal incense seized for drug trafficking.** *Forensic Toxicology* 2013;31(1):86-92. [Editor's Notes: Presents title study. Contact: Narcotics Analysis Division, National Forensic Service, 189 Jiyang-ro, Yangcheon-gu, Seoul 158-707, South Korea.]
2. Lee J, Choe S, Choi H, Heo S, Kim E, Kim H, Bang E, Chung H. **Identification of N-ethyl- α -ethylphenethylamine in crystalline powder seized for suspected drug trafficking: A research chemical or a new designer drug?** *Forensic Toxicology* 2013;31(1):54-58. [Editor's Notes: Presents title study. Contact: Narcotics Analysis Division, National Forensic Service, 189 Jiyang-ro, Yangcheon-gu, Seoul 158-707, South Korea.]
3. Nakajima J, Takahashi M, Seto T, Kanai C, Suzuki J, Yoshida M, Uemura N, Hamano T. **Analysis of azepane isomers of AM-2233 and AM-1220, and detection of an inhibitor of fatty acid amide hydrolase [3'-(aminocarbonyl)(1,1'-biphenyl)-3-yl]-cyclohexylcarbamate (URB597) obtained as designer drugs in the Tokyo area.** *Forensic Toxicology* 2013;31(1):76-85. [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.]
4. Tsujikawa K, Mikuma T, Kuwayama K, Miyaguchi H, Kanamori T, Iwata YT. **Identification and differentiation of methcathinone analogs by gas chromatography-mass spectrometry.** *Drug Testing and Analysis* 2012, Ahead of Print, doi: 10.1002/dta.1437. [Editor's Notes: Presents title study. Contact: National Research Institute of Police Science, Kashiwa, Chiba 277, Japan.]
5. Takahashi K, Uchiyama N, Fukiwake T, Hasegawa T, Saijou M, Motoki Y, Kikura-Hanajiri R, Goda Y. **Identification and quantitation of JWH-213, a cannabimimetic indole, as a designer drug in a herbal product.** *Forensic Toxicology* 2013;31(1):145-150. [Editor's Notes: Presents title study. Contact: Chiba Prefectural Institute of Public Health, 666-2 Nitona-cho, Chiba 260-8715, Japan.]
6. Uchiyama N, Kawamura M, Kikura-Hanajiri R, Goda Y. **URB-754: A new class of designer drug and 12 synthetic cannabinoids detected in illegal products.** *Forensic Science International* 2013;227(1-3):21-32. [Editor's Notes: URB-754 and 4-methylbuphedrone (4-Me-MABP) have been detected in a designer drug exhibit. Furthermore, an additional compound, N,5-dimethyl-N-(1-oxo-1-(p-tolyl)butan-2-yl)-2-(N'-(p-tolyl)ureido)benzamide, was identified in the sample of URB-754 and 4-Me-MABP, and is deduced to be a reaction product of URB-754 and 4-Me-MABP. Additionally 5-fluoropentyl-3-pyridinoylindole, JWH-307, JWH-030, UR-144, XLR11, MAM-2201, N-(4-pentenyl)-JWH-122, JWH-213, EAM-2201, AB-001, AKB48 and 4-OH-DET have been detected in newly distributed designer drugs in Japan. Contact: National Institute of Health Sciences, Setagaya-ku, Tokyo 158-8501, Japan.]
7. Uchiyama N, Matsuda S, Wakana D, Kikura-Hanajiri R, Goda Y. **New cannabimimetic indazole derivatives, N-(1-amino-3-methyl-1-oxobutan-2-yl)-1-pentyl-1H-indazole-3-carboxamide (AB-PINACA) and N-(1-amino-3-methyl-1-oxobutan-2-yl)-1-(4-fluorobenzyl)-1H-indazole-3-carboxamide (AB-FUBINACA) identified as designer drugs in illegal products.** *Forensic Toxicology* 2013;31(1):93-100. [Editor's Notes: Presents title study. Contact: National Institute of Health Sciences, 1-18-1 Kamiyoga, Setagaya-ku, Tokyo 158-8501, Japan.]
8. Zuba D, Byrska B. **Analysis of the prevalence and coexistence of synthetic cannabinoids in "herbal high" products in Poland.** *Forensic Toxicology* 2013;31(1):21-30. [Editor's Notes: Presents title study. Contact: (Institute of Forensic Research, Westerplatte 9, Krakow 31 033, Poland.)

Additional References of Possible Interest:

1. Cavalcanti G de A; Leal FD, Garrido BC, Padilha MC, Neto FR de A. **Detection of designer steroid methylstenbolone in "nutritional supplement" using gas chromatography and tandem mass spectrometry: Elucidation of its urinary metabolites.** *Steroids* 2013;78(2): 228-233. [Editor's Notes: Presents title study. Contact: Universidade Federal do Rio de Janeiro, Programa de pos-graduacao em quimica, Lab Dop-Ladetec, Ilha do Fundao, Avenida Athos da Silveira Ramos, Instituto de Quimica, RJ 21941-909, Brazil.]
2. Choe S, Lee J, Choi H, Park Y, Lee H, Pyo J, Jo J, Park Y, Choi H, Kim S. **Development of an automated data processing method for sample to sample comparison of seized methamphetamines.** *Forensic Science International* 2012; 223(1-3):335-341. [Editor's Notes: Present title study. Contact: Forensic Chemistry Division, Yongsan, South Korea.]
3. Favretto D, Pascali JP, Tagliaro F. **New challenges and innovation in forensic toxicology. Focus on the "New Psychoactive Substances."**

SELECTED REFERENCES

- Journal of Chromatography, A 2013;1287:84-95. [Editor's Notes: Presents an overview of the strengths and limitations of some of the newest analytical approaches, with particular attention to liquid phase separation techniques coupled to high resolution mass spectrometry. Contact: Department of Molecular Medicine, University Hospital of Padova, Padua, Italy.]
- Gakkager R, Shimmon R, McDonagh AM. **Synthesis and Impurity profiling of MDMA prepared from commonly available starting materials.** Forensic Science International 2012; 223(1-3):306-313. [Editor's Notes: Presents title study. Contact: Centre for Forensic Science, University of Technology Sydney, Sydney NSW 2007, Australia.]
 - Rosi L, Frediani P, Bartolucci G. **Determination of γ -hydroxybutyric acid and its precursors (γ -butyrolactone and 1,4-butanediol) in dietary supplements through the synthesis of their isotopologues and analysis by GC-MS method.** Pharmaceutical and Biomedical Analysis 2013; 74:31-38. [Editor's Notes: A method for the determination of γ -hydroxybutyric acid (GHB), γ -butyrolactone (GBL), and 1,4-butanediol (1,4-BD) using isotope dilution mass spectrometry (ID-MS) in dietary supplements is described. Contact: Dipartimento di Chimica "Ugo Schiff", Universita di Firenze, I-50019 Firenze, FI, Italy.]
 - Stojanovska N, Fu S, Tahtouh M, Kelly T, Beavis A, Kirkbridge KP. **A review of impurity profiling and synthetic route of manufacture of methylamphetamine, 3,4-methylenedioxyamphetamine, amphetamine, dimethylamphetamine and p-methoxyamphetamine.** Forensic Science International 2012;224(1-3):8-26. [Editor's Notes: Presents title review. Contact: Centre for Forensic Science, Sydney, University of Technology, Broadway NSW 2007, Australia.]
 - Swortwood MJ, Boland DM, DeCaprio AP. **Determination of 32 cathinone derivatives and other designer drugs in serum by comprehensive LC-QQQ-MS/MS analysis.** Analytical and Bioanalytical Chemistry 2013;405(5):1383-97. [Editor's Notes: Presents title study. Contact: Department of Chemistry and Biochemistry and International Forensic Research Institute, Florida International University, Miami, FL 33199, USA.]

THE DEA STATE AND LOCAL FORENSIC CHEMISTS SEMINAR SCHEDULE

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

September 16 - 20, 2013
November 4 - 8, 2013

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, send an email to: DEA-Forensic.Chemist.Seminar@usdoj.gov.

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: _____