

## Legal and not so legal highs: Forensic analysis of emerging drugs

**J. Graham Rankin**  
Marshall University, USA

**H**allucinogenic products sold as “herbal incense” and “bath salts” have been the focus of news media and law enforcement in recent years. The composition of these products rapidly changes as legislation is enacted to limit or control their sale and distribution. This creates challenges for forensic chemists and toxicologists who are called upon to analyze such materials. Participants will learn about these analytical and legal challenges and research underway to find solutions using a variety of instrumental techniques. Emphasis will be on 1) the analysis of such compounds as seized by law enforcement and submitted for forensic analysis; 2) toxicology and performance impairment effects along with the further challenge of determination of metabolites in bodily fluids.

### Biography

J. Graham Rankin received his BS in Biology from Southern Methodist University, a Ph.D. in Oceanography from Texas A&M. Following a 14 year career with the R&D arm of Shell Oil in Houston, he returned to academia earning a Ph.D. in Analytical Chemistry from the University of Houston. Upon graduation he joined the Chemistry Department at Marshall University in 1993. He was asked to be on the faculty advisory committee for the Forensic Science Program at its inception and began giving occasional lectures there with the first class in 1995. In 2000, he joined the program full time and developed the forensic chemistry emphasis in that program. He is a Fellow in the American Academy of Forensic Science, and a member of the Mid-Atlantic Academy of Forensic Scientists, the American Chemical Society, the E30 Committee on Forensic Science of the ASTM International, and the Technical Working Group for Fire and Explosives (TWGFEX). He is also an associate editor for the Journal of ASTM International. He is certified by the American Board of Criminalists as a Fire Debris Analyst and Drug Analysis. When he is not working with things that ‘burn down, blow up, or get you high’, he is a gourmet cook and Celtic musician.

grahamrankin01@comcast.net