

PubMed **Display Settings:** Abstract

Forensic Sci Int. 2014 Sep;242:135-41. doi: 10.1016/j.forsciint.2014.06.027. Epub 2014 Jun 30.

A structure-reactivity relationship driven approach to the identification of a color test protocol for the presumptive indication of synthetic cannabimimetic drugs of abuse.

Isaacs RC.

Author information

Abstract

The number of analyses of synthetic cannabimimetic drugs of abuse by forensic laboratories in the United States grew rapidly from 2010 to 2012 and then declined somewhat in 2013. In 2010, according to the National Forensic Laboratory Information System (NFLIS), 3,287 reports by federal, state and local forensic laboratories were identified as containing synthetic cannabinoids. In 2011 and 2012, the numbers increased to 23,693 and 42,503, respectively. 27,119 reports were identified in 2013. Several commonly encountered structural sub-classes of these synthetic designer drugs, namely the naphthoylindoles, benzoylindoles, phenylacetylindoles, and cyclopropoylindoles contain a ketone functional group. The Duquenois-Levine color test for the presumptive identification of classical cannabinoids such as $\Delta(9)$ -tetrahydrocannabinol is negative for the synthetic cannabimimetics. The van Urk color test for the presumptive identification of indole containing drugs of abuse is also negative for these compounds. The use of 2,4-dinitrophenylhydrazine as an alternative color test reagent (targeting the keto moiety rather than the indole) for presumptive identification of these classes of drugs was investigated.

Published by Elsevier Ireland Ltd.

KEYWORDS: Cannabimimetic drug; Color test; Spice; Synthetic cannabinoid; Synthetic marijuana

PMID:25062530[PubMed - in process]

LinkOut - more resources

Full Text Sources

[Elsevier Science](#)

[EBSCO](#)

[Gale Databases](#)

PubMed Commons

[PubMed Commons home](#)

0 comments

[How to join PubMed Commons](#)