

Analytical profiles of 6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline for the purposes of identification in forensic examinations sites

© Igor M Fitsev,^{1*+} Timur A. Chevtchouk,² Natalia A. Fitseva,³
Ayrat I. Nuraniev,¹ Ildar Kh. Rizvanov,⁴ and Herman C. Budnikov⁵

¹ Expert-criminalistic Center of MIA of the Republic of Tatarstan.

First of May St., 23a. Kazan, 420032. Russia. E-mail: fitsev@mail.ru

² Department of Organic Chemistry of the Belarusian State University.

Leningrad St, 14. Minsk, 220050. Republic of Belarus.

³ Expert-criminalistic Department UFSKN of Russia on RT. Academician Gubkin St., 50.

Kazan, 420088. Russia.

⁴ Laboratory of Physicochemical Analysis. Institution of Russian Academy of Sciences Institute of Organic and Physical Chemistry Named after A.E. Arbuzov. Kazan Scientific Centre. Arbuzova St., 8. Kazan, 420088.

Russia. E-mail: rizvanov@iopc.ru

⁵ Department of Analytical Chemistry. Chemical Institute Named after A.M. Butlerov at the Kazan (Volga region) Federal University. Kremlin St., 18. Kazan, 420008. Russia. E-mail: Herman.Budnikov@ksu.ru

*Supervising author; +Corresponding author

Keywords: 6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline, gas chromatography/mass spectrometry, NMR spectroscopy, forensic examination of drugs.

Abstract

The results of comprehensive research «designer drugs» – 6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline using thin layer chromatography, gas chromatography/mass-spectrometry with electronic and chemical ionization, NMR- and IR-spectroscopy are presented. To identify 6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline objects forensic examinations suggested to use mass-spectrometry and gas chromatography retention parameters, and its IR spectrum.