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The analytical profiles and identification of the Designer drugs 1-(4-bromophenyl)-2-(methylamino)propan-1-one (brephedrone) in the forensic facilities

© **Igor M. Fitsev**,[1]*+ **Natalia A. Fitseva**,[2] and **Herman C. Budnikov** [3]
[1] *Expert-criminalistic Center of MIA of the Republic of Tatarstan. First of May St., 23a. Kazan, 420032. Russia. E-mail: fitzev@mail.ru*
[2] *Expert-criminalistic Department UFSKN of Russia on RT. Aademian Gubkin St., 50. Kazan, 420088. Russia.*
[3] *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

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Abstract

Control of drug trafficking is a very important social problem. The results of complex definition of the analytic characteristics (mass spectra EI, CI, ^{1}H and ^{13}C NMR, IR-spectra, R_I-retention index) of the «designer drug» among the series of beta-carbonylarylalkylamines – 1-(4-bromophenyl)-2-(methylamino)propan-1-one (brephedrone, 4-BMC, bk-PBMA) are presented. To provide reliable structural identification and differentiation of the brephedrone in the forensic facilities through mass spectrometry, it is offered to use derivatization to receive its trifluoroacetyl-(4-BMC-TFA) and acetyl-(4-BMC-AC) derivatives.