

# ABSTRACT

In this work were synthesized ketamine isotopomers. Ketamine is used in human medicine and veterinary sectors. It has very broad spectrum of pharmacological effects: anesthetic, analgesic, hallucinogenic, bronchodilator, cardiovascular and antidepressive, which is currently in the research. At first was synthesized precursor of ketamine, *N*-desmethylketamine which was subsequently labeled the deuterium, tritium and carbon-14. For the determination of purity and identity mass spectrometry and nuclear magnetic resonance spectroscopy were used.

## KEY WORDS

synthesis of ketamine, ketamine, *N*-desmethylketamine, *nor*-ketamine, isotopically labeled ketamine, deuterium, tritium, carbon-14.