

6th International Conference and Exhibition on

MATERIALS SCIENCE AND CHEMISTRY

May 17-18, 2018 | Rome, Italy

Synthesis of hydrazones of 5 α -androstane series

Nana N Barbakadze, Nanuli Sh Nadaraia and Meri L Kakhbrishvili
Tbilisi State Medical University, Georgia

Recently, steroidal hydrazones have been receiving extensive attention of scientists because they have shown to exhibit antibacterial, antiviral and anticancer activities. Previously synthesized by us, some 5 α -steroidal hydrazones have shown high antitubercular and antiviral activities. In order to find new potential bioactive compounds, hydrazones of 5 α -androstane series have been synthesized. The starting ketones, 3 α -hydroxy-5 α -androst-9(11)-en-17-one and 5 α -androst-2-en-17-one have been obtained by multistep modification of epiandrosterone — intermediate product of transformation of tigogenin. The structures of new hydrazones have been established by IR-, NMR- and mass spectral data.

Recent Publications

1. Nadaraia N, Onashvili E, Kakhbrishvili M, Barbakadze N, Sylla B and Pichette A (2016) Synthesis and antiviral activity of several N-containing 5 α -steroids. *Chemistry of Natural Compounds* 52(5):853–855.
2. Barbakadze N, Nadaraia N, Kakhbrishvili M, Onashvili E and Katritzky A (2016) Synthesis from tigogenin of 17 β -amino-5 α -androstan-3 β -ol peptide derivatives. *Chemistry of Natural Compounds* 52(3):445–447.
3. Nadaraia N, Kakhbrishvili M, Onashvili E, Barbakadze N, Getia M, Pichette A, Sikharulidze M and Makhmudov U (2014) Synthesis of several 5 α -androstan[17,16-d]pyrazolines from tigogenin. *Chemistry of Natural Compounds* 50(6):1024–1028.
4. Barbakadze N, Jones R, Rosario N, Nadaraia N, Kakhbrishvili M, Hall D and Katritzky A (2014) Chemical modification of oximes with N-protected amino acids. *Tetrahedron* 70(40):7181–7184.
5. Nadaraia N, Kakhbrishvili M, Barbakadze N and Sikharulidze M (2013) Synthesis of some derivatives of 17 β -amino-5 α -androst-2-en-17-one. *Chemistry of Natural Compounds* 13(1):146–147.

Biography

Nana N Barbakadze has completed her PhD from Ivane Javakhsishvili Tbilisi State University. She is a Research Scientist at Tbilisi State Medical University. Her field of interest is in chemistry and synthesis of biologically active compounds. She is the Author of more than 15 papers in reputed journals and has presented her work at 40 international scientific conferences.

nana_barbakadze@yahoo.com

Notes:

This work was supported by Shota Rustaveli National Science Foundation (SRNSF) (Grant №217560, “Synthesis and pharmacological research of potential bioactive nitrogen-containing 5 α -steroids”)