Joint Event

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Development and design of new 1,2,4-triazole-1-ylmethylazoles- modern highly effective fungicides

Abstract:

In modern medical chemistry and agrochemistry, drugs for the treatment of fungal diseases occupy a special place. The most common and effective class are azoles having the pharmacophore group imidazole or 1,2,4-triazole. They have a systemic effect and low toxicity. Azoles inhibit lanosterol alpha-demethylase (CYP51Y) and disrupt the permeability of the fungal cell membrane. They are used in clinical practice and are among the top 200 best-selling medicines. The current work is devoted to the development of a new design of azoles for the treatment of fungal diseases based on 1,2,4-triazole-1-ylmethylazoles with a characteristic change in the structure of active substances from branched to elongated type. Methods for obtaining new series of compounds have been developed and their high efficiency in biological tests in vitro has been shown. This report covers the work result over the past 5 years.

Biography

Tsaplin Grigory has completed his PhD at the age of 30 years from Mendeleev University of Chemical Technology (MUCTR). He is the assistant at department of chemistry and technology of organic synthesis of MUCTR. He has published more than 28 papers in reputed journals and 5 RU patents.