International Conference on Natural Products and Physiologically Active Substances (ICNPAS-2004)
September 12-17, 2004, Novosibirsk, Russia
Poster Presentation

Synthesis of Lappaconitine Derivatives Modified at the Heterocyclic Nitrogen Atom

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One of the most available diterpenoid alkaloids, lappaconitine (**1**), exhibits high antiarrhythmic activity. The drag "allapinine" is produced on it base. However, diterpenoid alkaloids possessing antiarrhythmic properties are generally highly toxic. Therefore, this is of importance to prepare new compounds possessing high specific phisiological activity but lower toxicity. The aim of our study was to develop procedures to synthesize derivatives modified at N(20) atom of lappaconitine. During our investigation N(20)-deethyllappaconitine derivatives with hydrophilic substituents at heterocyclic nitrogen atom (3-6) were prepared. The structures of new compounds were established based on spectroscopic data (^{1}H and ^{13}C NMR, MS, IR, UV).