

Oxidizing Bromination of Betulin

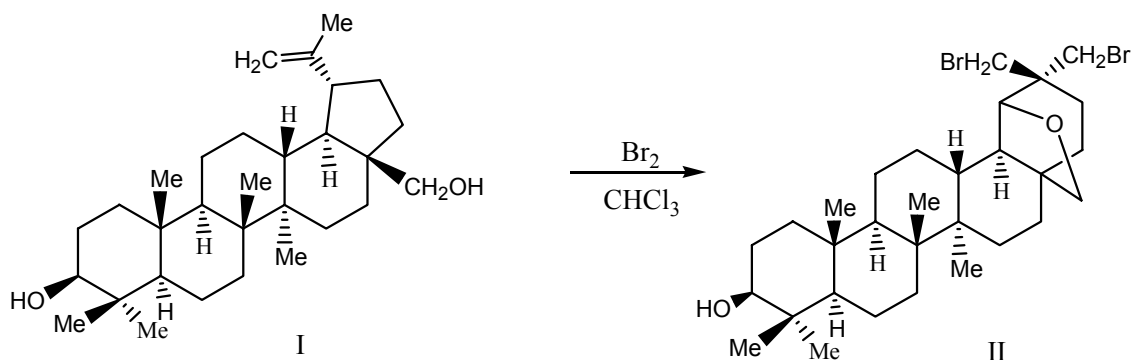
M. Y. Lezhneva^a, V. V. Polyakov^a, T. A. Shinova^a,
E. E. Shults^b, V. A. Rudova^a, T. V. Naumenko^a

^a North-Kazakhstan State University, Universitetskaya 18, Petropavlovsk, 642000, Kazakhstan

^b Novosibirsk Institute of Organic Chemistry of Siberian Branch of Russian Academy of Sciences,
Acad. Lavretsky ave., 9 Novosibirsk, 630090, Russia

Lupane triterpenes and especially their oxidized forms are known to have a wide spectrum of biological activity. Oxidation of lupane triterpene betulin readily available from the birch bark by bromine results in the oxidized form of bromoderivative. Addition of bromine atom permits not only to change properties of initial betulin, but also to obtain a precursor for further transformations.

For determination of optimum oxidizing bromination conditions were carried out a series of experiments with the use of various amounts of bromine. As a result, 29,30-dibromallobetulin (II) was the really isolable product. The degree of conversion depends on the reagents ratio and reaction conditions.



Compound (II) shown obvious destructive action on the *Trichophyton rubrum* - *Epidermophyton rubrum* *Castellani* fungus just as widely used in practice preparations: orungal, lamizil, terbizil and its much more effective of nizoral preparation