

Reduction of 2, 3-epoxypinane and 3, 4-epoxyc arane

Isaeva Z., Arbuzov B.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

1. In presence of Raney nickel, 2,3-epoxypinane is reduced with formation of two alcohols of composition C₁₀H₁₈O. 2. Hydrogenation is accompanied by the isomerization of 2,3-epoxypinane to a ketone of composition C₁₀H₁₆O, which is identical with the product of the thermal isomerization of the epoxide and with the product of die oxidation of the alcohol C₁₀H₁₈O obtained by the reduction of 2,3-epoxypinane over Raney nickel. 3. The ketone C₁₀H₁₆O, product of the thermal isomerization of 2,3-epoxypinane, is reduced by lithium aluminum hydride to a mixture of two stereoisomeric alcohols of composition C₁₀H₁₈O, which are not identical with the alcohols obtained by the reduction of 2,3-epoxypinane over Raney nickel. 4. When pinocamphone from oil of hyssop is reduced with lithium aluminum hydride, an alcohol C₁₀H₁₈O, which differs from those mentioned above, is formed. 5. In presence of Raney nickel, 3,4-epoxycarane is reduced to an alcohol of composition C₁₀H₁₈O, and under the action of heat it is isomerized to a ketone of composition C₁₀H₁₆O. © 1960 Consultants Bureau Enterprises, Inc.

<http://dx.doi.org/10.1007/BF00916669>
