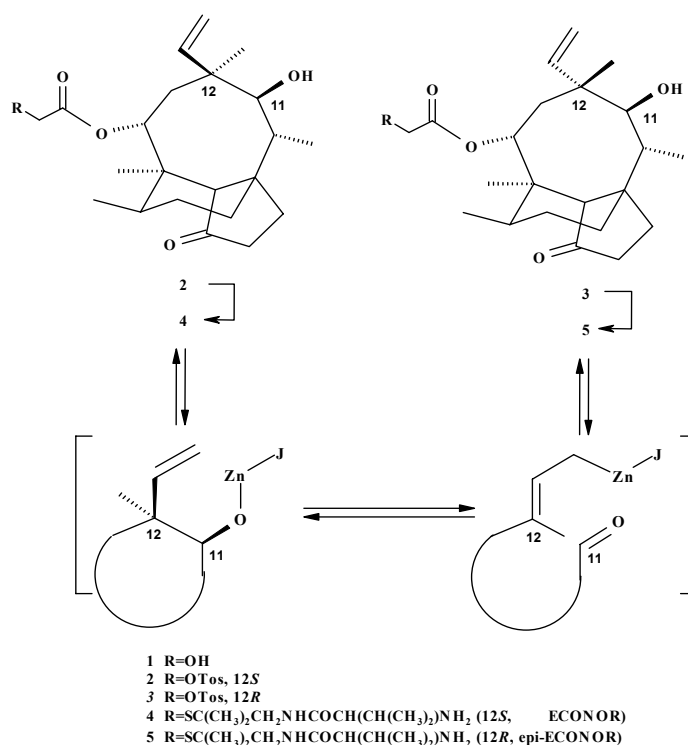


SELECTIVE C-12 EPIMERIZATION OF THE TRICYCLIC SCAFFOLD OF PLEUROMUTILIN (1)

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Investigating the specificity of action within the tricyclic skeleton of pleuromutilin based antibiotics the C-12 Epimer (**5**) of Econor (**4**) [1] was synthesized by a reversible metal-retro-ene-reaction of the homoallylic moiety[2].



Treatment of the tosylate **2** with EtZnJ ends up in an equilibrium mixture of compounds **2** and **3** which after separation are transformed to the epimers of Econor (**4** and **5**). Besides of a suggested mechanism for this transformation the antibiotic activity of **4** and **5** will be discussed based on comparative modelling considerations at the recently published ribosomal active site [3] of this type of substances.

[1] Berner, H.; Vypel, H. Eur. Pat. EP 153277 A2 19850828

[2] Corey, E.J.; Uda, H. J. Am. Chem. Soc. 85, 1788, 1963.

[3] Schluenzen, F.; Pyetan, E.; Fucini, P.; Yonath, A.; Harms, J.M. Molecular Microbiology 2004, 54, 1287.