A New Approach to the Synthesis of β-amino-α-hydroxy Acids

Ramazan Altundas, Meryem Fistikçi, Yakup Gunes, M. Fatih Polat
Ataturk Üniversitesi, Fen ve Edebiyat Fakültesi, Kimya Bölümü, 25240 Erzurum, TÜRKİYE
ramazanalundas@atauni.edu.tr

β-amino-α-hydroxy acids are very important and powerful intermediates for the synthesis of many drugs and drugs candidates. They are the core group of several natural products which possess biological activity. We are currently working on a new strategy for the synthesis of amino acids based on oxidation of furan ring bearing a chiral alcohol functional group. We started from furoic acid 1 to obtain 2. Enantioselective reduction of ketone gave 3 with 95:5 enantiomeric ratio. 3 is the key compound in our synthetic plan for controlling the stereochemistry throughout the synthesis. After the protection of primary alcohol, secondary hydroxyl group was converted to azide by using DPPA. So far we have already proceeded to alkyl iodide 5 in good yield.

R=n-Bu, Et, Ph

We will be discussing our new approach towards the synthesis of β-amino-α-hydroxy acids.

Kaynaklar:
