Synthesis of a Regular 24-membered Cyclodepsipeptide by Direct Amide Cyclization

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Dedicated to Professor Gerhard Maas on the occasion of his 60th birthday

The synthesis of a 24-membered cyclic depsipeptide with an alternating sequence of phenyllactic acid and α-aminoisobutyric acid (Aib) is described. The linear precursor was prepared *via* the 'azirine/oxazolone method' using 2,2-dimethyl-3-amino-2*H*-azirines as building blocks for the α,α-disubstituted α-amino acid Aib. The macrolactonization leading to the cyclodepsipeptide was achieved by the 'direct amide cyclization', *i. e*., by treatment of a solution of the linear precursor in toluene with HCl gas.

Key words: Cyclodepsipeptides, Direct Amide Cyclization, Azirine/Oxazolone Method, Aminoisobutyric Acid, Crystal Structure