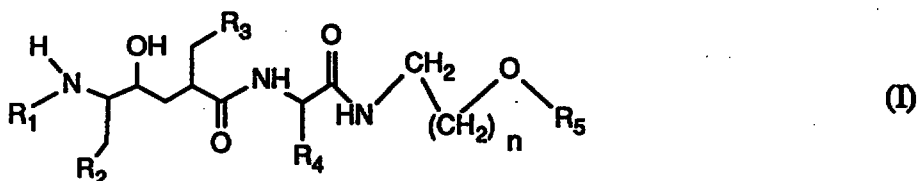


Antiviral ethers of aspartate protease substrate isosteres

Abstract

Antiretroviral compounds (which are effective, for example, against HIV) of the formula I



in which

R_1 is an acyl radical lower-alkoxy-lower-alkanoyl whose lower alkoxy radical is unsubstituted or is substituted by halogen, phenyl, lower alkoxy or a heterocyclic radical selected from piperidiny, pyrrolidiny, tetrahydropyrany, tetrahydrofurany, thiazolidiny, thiazoly, indoly or 4H-1-benzopyrany which is unsubstituted or substituted by oxo, hydroxyl, amino, lower alkyl, lower-alkoxycarbonyl and/or phenyl-lower-alkoxycarbonyl; lower alkanoyl which is unsubstituted or is substituted by one of the said unsubstituted or substituted heterocyclic radicals; arylcarbonyl or heterocyclylcarbonyl which are substituted by heterocyclyl or heterocyclyl-lower-alkyl; phenyl-lower-alkanoyl which is substituted by hydroxyl and lower alkyl; or arylsulfonyl;

or the residue of an amino acid which is defined in accordance with the description (and which may be acylated on the amino nitrogen by one of the abovementioned acyl radicals);

R_2 and R_3 are in each case cyclohexyl, cyclohexenyl, phenyl, naphthyl or tetrahydronaphthyl which are unsubstituted or substituted by lower alkyl, phenyl, cyanophenyl, phenyl-lower-alkyl, halogen, halo-lower-alkyl, cyano, hydroxyl, lower alkoxy, phenyl-lower-alkoxy, pyridyl-lower-alkoxy, lower-alkoxy-lower-alkoxy, lower-alkoxycarbonyl-lower-alkoxy, carboxyl-lower-alkoxy, hydroxyl-lower-alkoxy, carbamoyl-lower-alkoxy, cyano-lower-alkoxy, and phenyl-lower-alkanesulfonyl which is unsubstituted or substituted by halogen;

R_4 is lower alkyl, cyclohexyl or phenyl; and R_5 is lower alkyl; and n is 1 or 2, or salts thereof, are novel.