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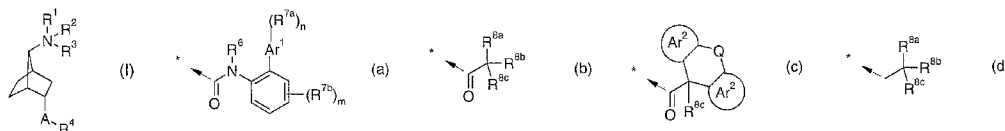
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(54) Title: BICYCLO[2.2.]HEPT-7-YLAMINE DERIVATIVES AND THEIR USES



(57) Abstract: Compounds of formula (I) have muscarinic M3 receptor modulating activity; Formula(I) wherein A is an oxygen atom or group -N(R¹)₂; (i) R¹ is C₁-C₆-alkyl or a hydrogen atom; and R² is a hydrogen atom or a group -R⁵, -Z-Y-R⁵, -Z-NR⁹R¹⁰, -Z-CO-NR⁹R¹⁰, -Z-NR⁹-CO-R⁵, or -Z-CO₂H; and R³ is a lone pair, or C₁-C₆-alkyl in which case the nitrogen atom to which it is attached is a quaternary nitrogen and carries a positive charge; or (ii) R¹ and R³ together with the nitrogen to which they are attached form a heterocycloalkyl ring, and R² is a hydrogen atom; or a group -R⁵, -Z-Y-R⁵, -Z-NR⁹R¹⁰, -Z-CO-NR⁹R¹⁰, -Z-NR⁹-CO-R⁵, or -Z-CO₂H, in which cases the nitrogen atom to which it is attached is a quaternary nitrogen and carries a positive charge; or (iii) R¹ and R² together with the nitrogen to which they are attached form a heterocycloalkyl ring, said ring being substituted by a group -Y-R⁵, -Z-Y-R⁵, -Z-NR⁹R¹⁰, -Z-CO-NR⁹R¹⁰, -Z-NR⁹-CO-R⁵, or -Z-CO₂H and R³ is a lone pair, or C₁-C₆-alkyl in which case the nitrogen atom to which it is attached is a quaternary nitrogen and carries a positive charge; R⁴ is a group of formula (a), (b), (c) or (d); is an C₁-C₆-alkyl, aryl, aryl-fused-cycloalkyl, aryl-fused-heterocycloalkyl, heteroaryl, aryl(C₁-C₈-alkyl)-, heteroaryl(C₁-C₈-alkyl)-, cycloalkyl or heterocycloalkyl group, and the remaining variables are as defined in the specification.