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(71) Applicant *(for all designated States except US)*: **ALTANA PHARMA AG** [DE/DE]; Byk-Gulden-Str. 2, 78467 Konstanz (DE).

(72) Inventors *(for all designated States except CA, PH, US)*: **SCHMIDT, Beate**; Allensbacher Str. 5, 78476 Allensbach (DE). **FLOCKERZI, Dieter**; Ackerweg 26, 78476 Allensbach (DE). **HATZELMANN, Armin**; Alter Wall 3, 78467 Konstanz (DE). **ZITT, Christof**; Mainaustr. 209 D, 78464 Konstanz (DE). **BARSIG, Johannes**; Bleichenweg 11, 78467 Konstanz (DE). **MARX, Degenhard**; Obere Reute 15, 78345 Moos (DE). **KLEY, Hans-Peter**; Im Weinberg 3b, 78476 Allensbach (DE).

(72) Inventor; and
(75) Inventor/Applicant *(for US only)*: **KAUTZ, Ulrich** [DE/DE]; Prof.-Schmider-Str. 12, 78476 Allensbach (DE).

(74) Agents: **KRATZER, Bernd** et al.; c/o ALTANA Pharma AG, Byk-Gulden-Str. 2, 78467 Konstanz (DE).

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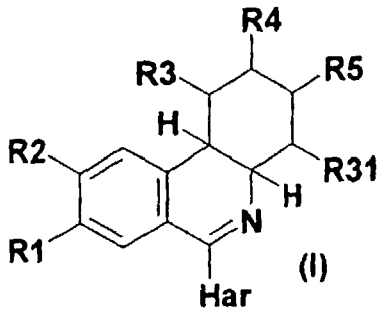
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[Continued on next page]

(54) Title: NOVEL HYDROXY-6-HETEROARYLPHENANTHRIDINES AND THEIR USE AS PDE4 INHIBITORS



(57) Abstract: Compounds of formula (I), in which R1 is hydroxyl, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-4C-alkoxy, R2 is hydroxyl, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-4C-alkoxy, or in which R1 and R2 together are a 1-2C-alkylenedioxy group, R3 is hydrogen or 1-4C-alkyl, R31 is hydrogen or 1-4C-alkyl, either, in a first embodiment (embodiment a) according to the present invention, R4 is -O-R41, in which R41 is hydrogen, 1-4C-alkyl, 1-4C-alkoxy-1-4C-alkyl, hydroxy-2-4C-alkyl, 1-7C-alkylcarbonyl, or completely or predominantly fluorine-substituted 1-4C-alkyl, and R5 is hydrogen or 1-4C-alkyl, or, in a second embodiment (embodiment b) according to the present invention, R4 is hydrogen or 1-4C-alkyl, and R5 is -O-R51, in which R51 is hydrogen, 1-4C-alkyl, 1-4C-alkoxy-1-4C-alkyl, hydroxy-2-4C-alkyl, 1-7C-alkylcarbonyl, or completely or predominantly fluorine-substituted 1-4C-alkyl, Har is optionally substituted by R6 and/or R7 and/or R8, and is a 5- to 10-membered monocylic or fused bicyclic unsaturated or partially saturated heteroaryl radical comprising 1 to 4 heteroatoms selected independently from the group consisting of oxygen, nitrogen and sulfur, are novel effective PDE4 inhibitors.

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