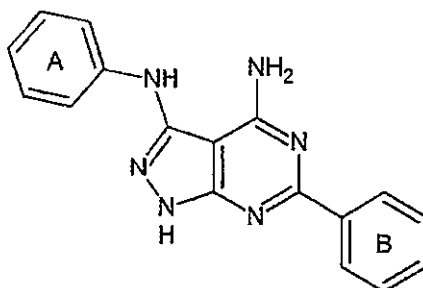


Claims

1. 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivatives of the general formula I



I

or a pharmaceutically acceptable salt or pro-pharmakon thereof, wherein at least one hydrogen atom in at least one of the phenyl groups A and B is substituted by a substituent R^H which has a Hammett constant σ_p greater than 0.23,

wherein each further hydrogen atom in each of the phenyl groups A and B can be substituted independently of each other by a residue R^1 , wherein

each R^1 independently can be a halogen, a saturated or unsaturated, linear or branched aliphatic radical with 1-7 chain members, a saturated or unsaturated, linear or branched alkanol radical with 1-8 chain members, NO_2 , CN , $CONR^2$, COR^2 , $COOR^2$, OR^2 , SR^2 , NR^2 , SO_2NR^2 , CX_3 , CR^2X_2 , OCX_3 , OCR^2X_2 , or phenyl;

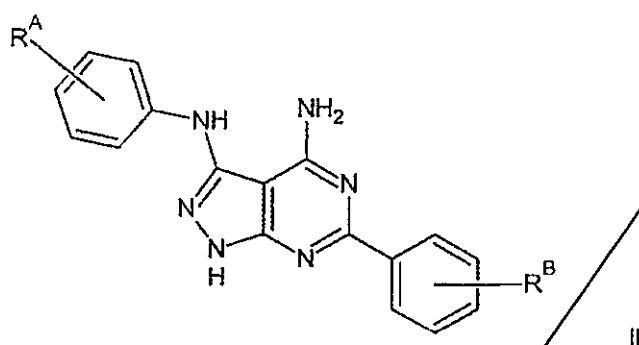
each R^2 independently is hydrogen, a saturated or unsaturated, halogenated or non-halogenated, linear or branched aliphatic radical with 1-7 chain members, benzyl, phenyl or naphthyl, a saturated or unsaturated, mono- or polyheterocycle with the heteroatoms N, S or O, wherein each of the groups mentioned above independently can be substituted with fluorine, chlorine, bromine, trifluoromethyl, alkyl, alkoxy, cyano, nitro, amino, aminoalkyl, $C(O)$ -alkyl, $C(O)O$ -alkyl, benzyl, phenyl or naphthyl; and

X independently is F, Cl, Br, or I.

2. 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivatives according to Claim 1, characterised by the fact that at least one substituent R^H independently is NO_2 , CN ,

CF₃, CCl₃, CBr₃, OCF₃, OCCl₃, OCB₃, CHF₂, CHCl₂, CHBr₂, OCHCl₂, CHO, COOH, COMe, COEt, COOMe or COOEt, preferably CF₃ or OCF₃.

3. 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivatives according to Claim 1 of the general formula II

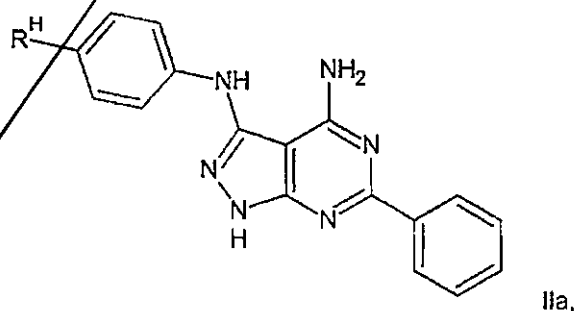


wherein each substituent R^A, R^B independently can be hydrogen, a halogen, a saturated or unsaturated, linear or branched aliphatic radical with 1-7 chain members, a saturated or unsaturated, linear or branched alkanol radical with 1-8 chain members, NO₂, CN, CONR², COR², COOR², OR², SR², NR², SO₂NR², CX₃, CR²X₂, OCX₃, OCR²X₂, or phenyl;

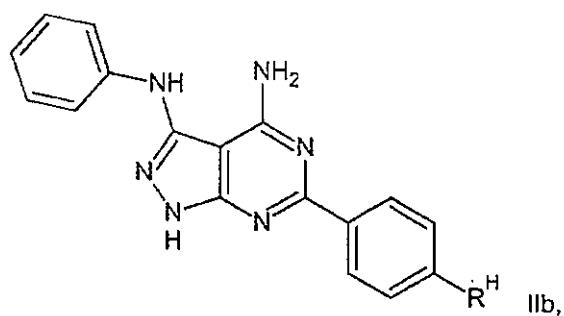
wherein R² and X are defined as in Claim 1;

characterised by the fact that at least one of the substituents R^A, R^B has a Hammett constant σ_p greater than 0.23.

4. 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivatives according to one of the Claims 1 or 2 of the general formula IIa

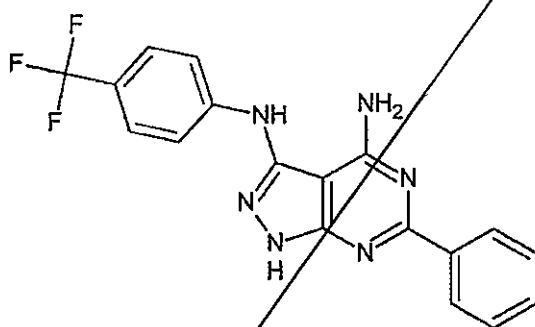


or IIb

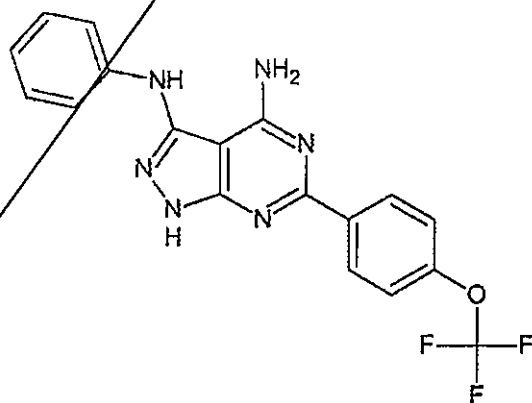


characterised by the fact that R^H is NO_2 , CN , CF_3 , CCl_3 , CBr_3 , OCF_3 , OCCl_3 , OCBr_3 , CHF_2 , CHCl_2 , CHBr_2 , OCHCl_2 , CHO , COOH , COMe , COEt , COOMe or COOEt , preferably CF_3 or OCF_3 .

5. 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivatives according to Claim 4 of the formula



or



6. Pharmaceutical composition, comprising a 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivative according to one of the previous claims.

7. Pharmaceutical composition according to Claim 6, also comprising a pharmaceutically acceptable carrier.
8. Pharmaceutical composition according to Claim 6 or 7, also comprising one or several other active ingredients.
9. Pharmaceutical composition according to Claim 8, wherein the one or the several other active ingredients are antiviral agents, preferably active agents against picornaviruses.
10. Method to manufacture a pharmaceutical composition, comprising the formulating of a 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivative according to one of the Claims 1-5 with a pharmaceutically acceptable carrier.
11. 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivatives according to one of the Claims 1-5 for use as a drug.
12. 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivatives according to one of the Claims 1-5 for use in the prophylactic or therapeutic treatment of viral infections.
13. 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivatives according to Claim 12, characterised by the fact that the viral infections are picornavirus infections.
14. Method to manufacture a 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivative according to one of the Claims 1 to 5 or according to formula I in Claim 1, wherein each hydrogen atom in each of the phenyl groups A and B independently of each other can be substituted by a residue R¹, as defined in Claim 1, comprising the conversion of a 5-amino-4-cyano-3-phenylaminopyrazol with the free base of a benzamidine in a polar organic solvent, preferably in n-butanol.
15. Method according to Claim 14, wherein the 4-amino-3-phenylamino-6-phenylpyrazolo[3,4-d]pyrimidine derivative then by recrystallisation using tetrahydrofuran or a mixture thereof with water or an organic solvent or by precipitation using a hot solution in tetrahydrofuran with water or an organic solvent, wherein the preferred organic solvent is toluene.

* * *

Claims:

1. An invention not claimed in any divisional application.