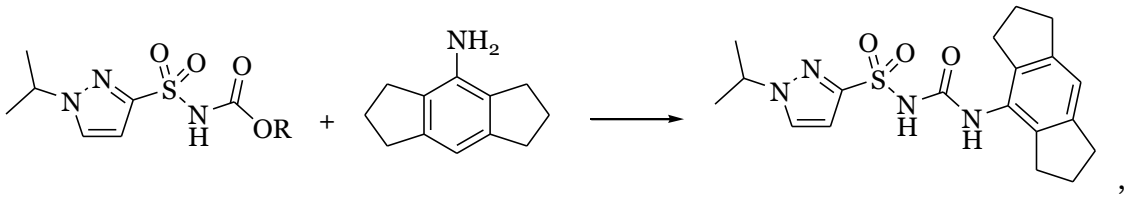
Claims

1. A process of preparing *N*-((1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl)-1-isopropyl-*1H*-pyrazole-3-sulfonamide or a salt thereof, comprising the step of contacting 1-isopropyl-3-(alkoxycarbonylaminosulfonyl)-1*H*-pyrazole with 1,2,3,5,6,7-hexahydro-s-indacen-4-amine in the presence of a solvent to obtain *N*-((1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl)-1-isopropyl-*1H*-pyrazole-3-sulfonamide:



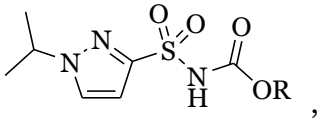
,

wherein R is C_{1-6} alkyl.

2. The process of claim 1, wherein R is methyl.

3. The process of claim 1 or 2, wherein the solvent comprises dimethyl carbonate.

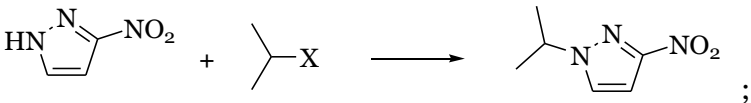
4. A process of preparing 1-isopropyl-3-(alkoxycarbonylaminosulfonyl)-1*H*-pyrazole:



,

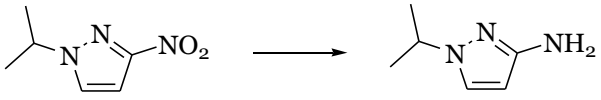
wherein R is C_{1-6} alkyl, comprising one or more steps selected from:

(a) contacting 3-nitro-*1H*-pyrazole with iPr-X to obtain 1-isopropyl-3-nitro-*1H*-pyrazole, wherein X is a leaving group:



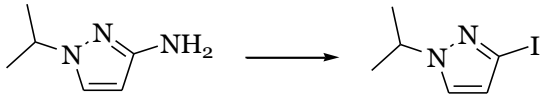
;

(b) reducing 1-isopropyl-3-nitro-*1H*-pyrazole to obtain 1-isopropyl-3-amino-*1H*-pyrazole:



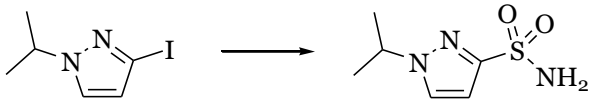
;

(c) converting 1-isopropyl-3-amino-*1H*-pyrazole into 1-isopropyl-3-iodo-*1H*-pyrazole:



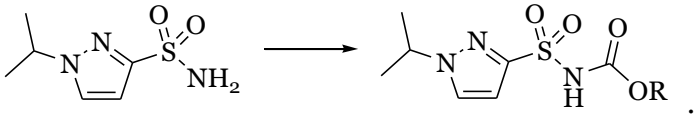
;

(d) converting 1-isopropyl-3-iodo-*1H*-pyrazole into 1-isopropyl-*1H*-pyrazole-3-sulfonamide:



; and

(e) converting 1-isopropyl-*1H*-pyrazole-3-sulfonamide into 1-isopropyl-3-(alkoxycarbonylaminosulfonyl)-1*H*-pyrazole:



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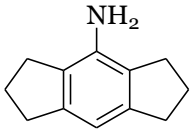
5. The process of any one of claims 1 to 3, wherein the 1-isopropyl-3-(alkoxy-carbonylaminosulfonyl)-1*H*-pyrazole is prepared by a process according to claim 4.

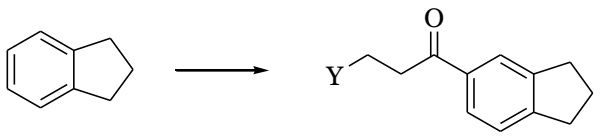
6. A process of preparing 1,2,3,5,6,7-hexahydro-s-indacen-4-amine:



,

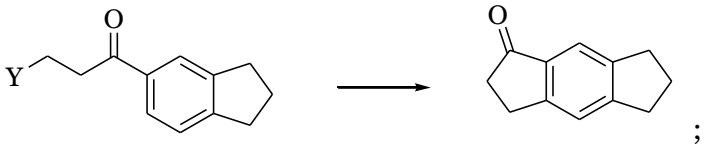
wherein the process is suitable for large scale clinical manufacture and comprises one or more steps selected from:

(i) contacting 2,3-dihydro-*1H*-indene with YCH_2CH_2COZ to obtain a substituted 1-(2,3-dihydro-*1H*-inden-5-yl)propan-1-one, wherein Y and Z are leaving groups:



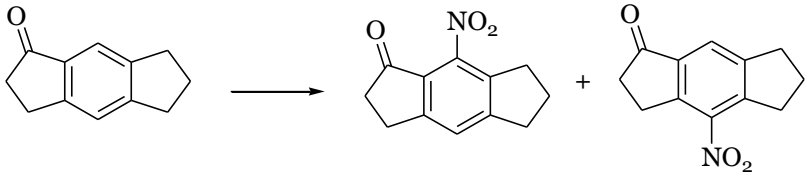
;

(ii) contacting the substituted 1-(2,3-dihydro-*1H*-inden-5-yl)propan-1-one with an acid to obtain 1,2,3,5,6,7-hexahydro-s-indacen-1-one:



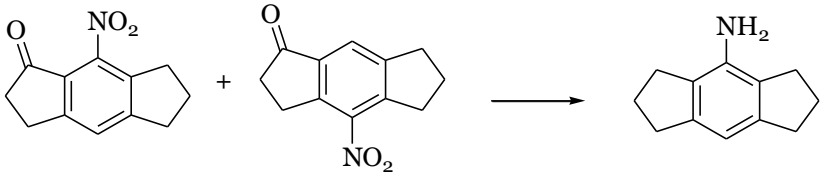
;

(iii) converting 1,2,3,5,6,7-hexahydro-s-indacen-1-one into 4-nitro-1,2,3,5,6,7-hexahydro-s-indacen-1-one and/or 8-nitro-1,2,3,5,6,7-hexahydro-s-indacen-1-one:



; and

(iv) reducing 4-nitro-1,2,3,5,6,7-hexahydro-s-indacen-1-one and/or 8-nitro-1,2,3,5,6,7-hexahydro-s-indacen-1-one to obtain 1,2,3,5,6,7-hexahydro-s-indacen-4-amine:



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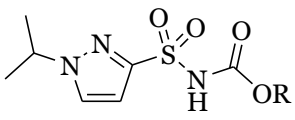
7. The process of any one of claims 1, 2, 3 or 5, wherein the 1,2,3,5,6,7-hexahydro-s-indacen-4-amine is prepared by a process according to claim 6.

8. 1-Isopropyl-3-(alkoxycarbonylaminosulfonyl)-1*H*-pyrazole:



,

wherein R is C_{1-6} alkyl.

9. The 1-isopropyl-3-(alkoxycarbonylaminosulfonyl)-1*H*-pyrazole of claim 8, wherein R is methyl.

10. The 1-isopropyl-3-(alkoxycarbonylaminosulfonyl)-1*H*-pyrazole of claim 8 or 9, having a HPLC purity of 98% or more, or 98.5% or more, or 99% or more, or 99.5% or more, or 99.6% or more, or 99.7% or more.