(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 March 2001 (29.03.2001)

PCT

(10) International Publication Number
WO 01/21596 A1

(51) International Patent Classification[7]: C07D 239/94, A61K 31/517, A61P 35/00

(21) International Application Number: PCT/GB00/03580

(22) International Filing Date:
18 September 2000 (18.09.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

9922170.7	21 September 1999 (21.09.1999)	GB
9922154.1	21 September 1999 (21.09.1999)	GB

(71) Applicant *(for all designated States except MG, US)*: **ASTRAZENECA AB** [SE/SE]; S-151 85 Sodertalje (SE).

(71) Applicant *(for MG only)*: **ASTRAZENECA UK LIMITED** [GB/GB]; 15 Stanhope Gate, London W1Y 6LN (GB).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **MORTLOCK, Andrew, Austen** [GB/GB]; Alderley Park, Macclesfield, Cheshire SK10 4TG (GB). **KEEN, Nicholas, John** [GB/GB]; Alderley Park, Macclesfield, Cheshire SK10 4TG (GB). **JUNG, Frederic, Henri** [FR/FR]; Z.I. la Pompelle, BP1050, F-51689 Reims Cedex 2 (FR). **BREWSTER, Andrew, George** [GB/FR]; 7, rue au Metre, F-78290 Croissy-sur-Seine (FR).

(74) Agent: **BRYANT, Tracey**; Astrazeneca, Global Intellectual Property, P.O. Box 272, Mereside, Alderley Park, Macclesfield, Cheshire SK10 4GR (GB).

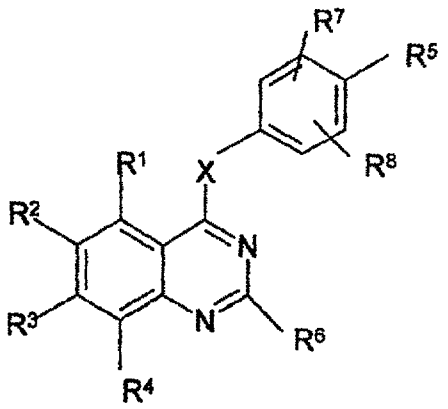
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *With international search report.*

[Continued on next page]

(54) Title: QUINAZOLINE DERIVATIVES AND THEIR USE AS PHARMACEUTICALS



(I)

(57) Abstract: The use of a compound of formula (I) or a salt, ester, amide or prodrug thereof; where X is O, or S, S(O) or $S(O)_2$, NH or NR^{12} where R^{12} is hydrogen or C_{1-6} alkyl; R^5 is selected from a group $NHC(O)OR^9$, $NHC(O)R^9$, $NHS(O)_2R^9$, $C(O)R^9$, $C(O)OR^9$, $S(O)R^9$, $S(O)OR^9$, $S(O)_2OR^9$, $C(O)NR^{10}R^{11}$, $S(O)NR^{10}R^{11}$ $S(O)ONR^{10}R^{11}$, where R^9, R^{10} or R^{11} are various specified organic groups; R^6 is hydrogen, optionally substituted hydrocarbyl or optionally substituted heterocyclyl; R^7 and R^8 are various specified organic groups, and R^1, R^2, R^3, R^4 are independently selected from halogeno, cyano, nitro, C_{1-3}alkylsulphanyl, $-N(OH)R^{13}$-(wherein R^7 is hydrogen, or C_{1-3}alkyl), or $R^{15}X^1$-(wherein X^1 represents a direct bond, -O-, $-CH_2$-, -OCO-, carbonyl, -S-, -SO-, $-SO_2$-, $-NR^{16}CO$-, $-CONR^{16}$-, $-SO_2NR^{16}$-, $-NR^{17}SO_2$- or $-NR^{18}$-(wherein R^{16}, R^{17} and R^{18} each independently represents hydrogen, C_{1-3}alkyl or C_{1-3}alkoxy C_{2-3}alkyl), and R^9 is hydrogen, optionally substituted hydrocarbyl, optionally substituted heterocyclyl or optionally substituted alkoxy; in the preparation of a medicament for use in the inhibition of aurora 2 kinase.

WO 01/21596 A1

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.