Title: A PROCESS FOR SYNTHESIS OF 6,7-BIS-(2-METHOXYETHOXY)-QUINAZOLIN-4-YL-(3-ETHENYLPHENYL)AMINE HYDROCHLORIDE

Abstract: A process for synthesizing 6,7-bis(2-methoxyethoxy)quinazolin-4-yl-(3-ethenylphenyl)amine hydrochloride (Erlotinib Hydrochloride) having the formula (I) comprising reacting 3,4-dihydroxy benzaldehyde with bromo derivative of ethyl methyl ether to obtain 3,4-bis(2-methoxyethoxy)benzaldehyde having formula (III). This is converted to give 3,4-bis (2-methoxyethoxy)benzonitrile. On further nitrification we obtain 4,5-bis (2-methoxyethoxy)-2-nitrobenzonitrile which on nitro reduction we get 2-amino-4,5-bis(2-methoxyethoxy)benzonitrile and reacting this with N5-(3-ethenylphenyl)-N,N-dimethyl formamidine gives erlotinib free base. On further treatment of this free base with methanolic/ethanolic hydrochloric acid gives us erlotinib hydrochloride.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
   IPC:   C07D 239/94 (2006.01)
          C07C 47/11 (2006.01)
   USPC:  544/293; 568/425
   According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
   Minimum documentation searched (classification system followed by classification symbols)
      U.S.: 544/293; 568/425

   Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

   Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
      CAS and EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

   Category *   Citation of document, with indication, where appropriate, of the relevant passages   Relevant to claim No.
   A       US 5,883,102 B (HAMLEY et. al.) 16 March 1999 (16.03.1999), columns 5-6.   1-20
   X       WO 96/30347 (PFIZER INC.) 03 October 1996 (03.10.1996), page 31, Example 20, and page 50, Preparation 1.   20
   A

   See patent family annex.

   Further documents are listed in the continuation of Box C.

   * Special categories of cited documents:
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   Date of the actual completion of the international search
   14 August 2008 (14.08.2008)

   Date of mailing of the international search report
   11 September 2008

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