Title: AN IMPROVED PROCESS FOR THE PREPARATION OF 7-CHLORO-4-(5-N-ETHYL-N-2-HYDROXYETHYLAMINONE)-2-PENTYL AMINOQUINOLINE AND ITS INTERMEDIATES

Abstract: Disclosed herein is an improved process for the preparation of 7-chloro-4-(5-N-ethyl-N-2-hydroxyethylamino)-2-pentylaminoquinoline comprising of condensation reaction of 4,7-dichloro quinoline with 5-(N-ethyl-N-2-hydroxyethyl amino)-2-pentylamine and its intermediates which comprises the reaction of protected 1-chloro-4-pentanone with substituted amine followed by deprotection of ketogroup and reductive amination yielding 5-(N-ethyl-N-2-hydroxyethyl amino)-2-pentylamine or 5-(N,N-diethylamino)-2-pentylamine.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
   IPC(7) : C07D 215/38, 215/44, 215/46
   US CL. : 546/159, 162, 163
   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. : 546/159, 162, 163
   Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

   Electronic database consulted during the international search (name of data base and, where practicable, search terms used)
   West, East, CAPlus online, Registry Online

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 3,362,954 A (SURREY et al) 09 January 1968 (09.01.1968), claims.</td>
<td>1-21</td>
</tr>
<tr>
<td>X</td>
<td>LANGER S.W. Inhibitors of Topoisomerase II, Clinical Cancer Research, October 1999, Vol 5, pages 2899-2907.</td>
<td>1-21</td>
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</tbody>
</table>

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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