

THE PATENTS ACT 1970
SECTION 25(1)
AMENDED BY THE PATENTS (AMENDMENT) ACT 2005
AND
THE PATENT RULES, 2003
AMENDED BY THE PATENTS (AMENDMENT) ACT 2006

In the Matter of Patent application no.
IN/PCT/2002/00497/DEL filed on 13/05/2002

AND

In the Matter of opposition by way of representation
u/s 25(1) on said application IN/PCT/2002/00497/DEL
under section 25(1) the Patents Act 1970
as amended by the Patents Act 2005

AND

In the Matter of rule 55 of THE PATENT RULES,
2003 as amended by the patents Rules 2003 and as
amended by the Patents (Amendment)Act,2005 &
2006

M/s OSI Pharmaceuticals Inc,USA.....The Applicant

M/s Cipla Ltd.,India.....The Opponent

Present:

Mr. D.J.Solomon

DePenning & DePenningAttorney for the Applicant

Mr S.Majumdar

S.Majumdar & Co.Attorney for the Opponent

Hearing held on 18th February, 2009

A representation by way of opposition under section 25(1) of the Patents (Amendment) Act, 2005 was filed by M/s S.Majumdar and Co. on behalf of M/s Cipla Limited on 30/01/2008 with a request for hearing under Rule 55 of the Patent Rule 2003 as amended by Patent (Amendment) Act 2005.The Applicant submitted their reply statement on 26/11/2008. A hearing was fixed on 21st Jan 2009 and was adjourned on the request of

the Agent for Applicant to 4th february, 2009. The hearing was further adjourned on request of the Agent for Opponent to 18th February, 2009 and finally both the parties to presented their case on 18/02/2009.

The impugned Application IN/PCT/2002/00497/DEL was filed on 13/05/2002 in national phase by M/s Kumaran & Sagar on behalf of Applicant M/s OSI Pharmaceuticals Inc. having priority of US application 60/164907 dated 11 November,1999 for an invention claiming “A process for the production of the polymorph B of N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4-quinazolinamine hydrochloride”.

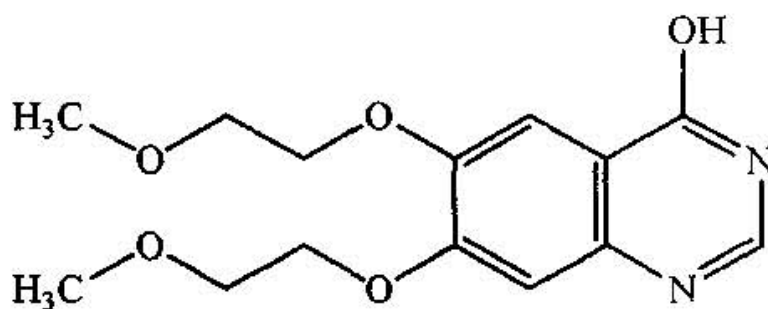
The opponent raised the following grounds in their written submissions:

- 1) Prior publication
- 2) Publicly known and publicly used in India
- 3) Obvious and lacking inventive step
- 4) Not an invention/Non patentable
- 5) Failure to disclose information under Section 8.

It is observed from the records that during the prosecution of the impugned application in the Patent Office, objections were raised by the examiner and consequently the applicant amended the claims and submitted finally five claims relating to process. These claims were also transmitted to the opponent so that they could submit their arguments with respect to the amended claims.

Let me reproduce the final five claims of this impugned application:

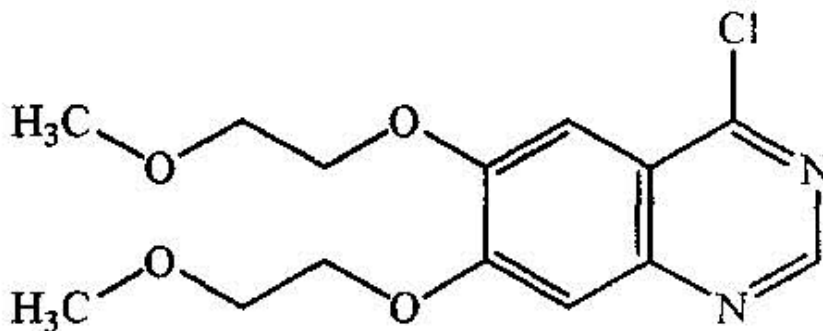
1. A process for the production of the polymorph B of N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4-quinazolinamine hydrochloride, comprising the steps of:
 - a) substitution chlorination of starting quinazolinamine compound of formula 3



3

Formula 3

having an hydroxyl group, to provide a compound of formula 4

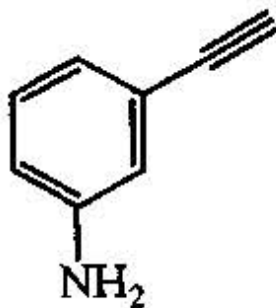


4

Formula 4

by reaction thereof in a solvent mixture of thionyl chloride, methylene chloride and dimethylformamide;

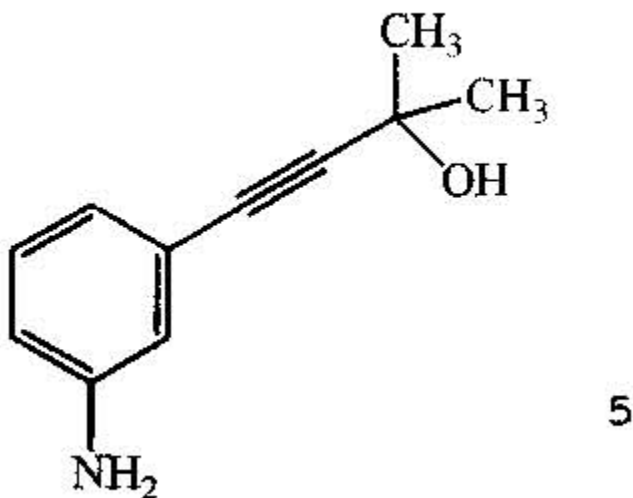
b) preparation of a compound of formula 6



6

Formula 6

in situ from starting material of compound, of formula 5



Formula 5

by heating the compound of formula 5 in a suspension of metal alkali and solvent;

c) reaction of the compound of formula 6 in situ with the compound of formula 4 wherein the compound of formula 6 replaces the chlorine in the compound of formula 4 to give the N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4-quinazolinamine hydrochloride;

d) recrystallizing the N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4-quinazolinamine hydrochloride, in alcohol, into the polymorph B form.

2. A process as claimed in claim 1, wherein N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4-quinazolinamine hydrochloride is recrystallized in a solvent comprising alcohol and optionally water.

3. The process as claimed in claim 1, wherein the substitution chlorination is quenched in the presence of aqueous potassium hydroxide, aqueous potassium bicarbonate, aqueous potassium carbonate, aqueous sodium carbonate, aqueous sodium bicarbonate, aqueous sodium hydroxide or a mixture thereof.

4. A process as claimed in claim 1, wherein the step of recrystallization comprises:
a) heating to reflux alcohol, water and the hydrochloride salt of N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4quinazolinamine so as to form a solution;
b) cooling the solution to between about 65 and 70 degree centigrade;
c) clarifying the solution; and
e) precipitating polymorph B by further cooling the clarified solution.

5. A Process, substantially as herein described with reference to the given examples.

The Attorney for opponent argued that :

Claim 1 relates to a process for preparing polymorph of the active compound. In this claim there are four steps, namely steps (a) to (d).Steps (a) to (c) describe the preparation of the known starting material,namely, hydrochloride salt of N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4quinazolinamine. Step (d) relates to recrystallization of the said known hydrochloride salt of N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4quinazolinamine formed in step (c) to the polymorph form.

Claim 2 relates to the recrystallization solvent which is described to comprise alcohol and optionally water.

Claim3 describes the quenching step(a) of claim1 viz the substitution chlorination reaction which is used in preparation of the starting material i.e hydrochloride salt of N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4quinazolinamine,which in itself is a known compound .Accordingly,claim2 has no bearing with the alleged invention that relates to

the process for preparation of polymorph B of hydrochloride salt of N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4quinazolinamine.

Claim 4 relates to details of the step of recrystallization.

It was further submitted by the attorney of the Opponent that the document US5747498 published on 5th may 1998 and which corresponds to Indian Patent no.196774 discloses this hydrochloride compound comprising a mixture of the polymorphs A and B, which

because of its partially reduced stability (i.e from the polymorph A component) was not more preferred for the tablet form than the mesylate salt forms. The example 20 of US5747498 describes a process for the preparation of [6-7-bis-(2-methoxyethoxy)-quinazolin-4-yl]-3(3-ethynylthene amine hydrochloride).

The vital argument made by the attorney for the opponent during the hearing that if the applicant can amend the claim1 in step D by substituting “alcohol and water” in place of “alcohol” alone and consequently delete the claim2, then they shall withdraw the opposition. It was pointed out on behalf of the opponent that the applicant has already offered such amendment with regard to solvent and made the same to read “alcohol and water” instead of “alcohol” alone in the order dated 15th December, 2008 in their Patent Application no.IN/PCT/2002/507/DEL. (refer the Attorney for opponent fax letter dated 19th february, 2009)

The Applicant agreed to substitute “alcohol and water” instead of “word “alcohol” alone in claim 1 and further agreed to delete claim 2.

Having arrived at this consensus between the parties, it leaves me no room to go in to details of other arguments and discuss upon other issues and grounds in this matter.

In view of the above discussion, I direct the Applicant to submit 4 amended process claims as agreed upon by substituting “alcohol and water” for “alcohol” in claim 1 and deleting claim 2 ,within a period of one month from the date of issue of this decision.

This application shall proceed for grant of Patent on submission of four amended claims as discussed and agreed upon above and the opposition stands withdrawn and disposed off with no cost to either party.

Dated this 25th may,2009

N. R Meena)
Asstt.Controller of Patents & Designs.

Copy to:- (1) S.Majumdar & Co.
5, Harish Mukherjee Road, Kolkata-700025
(2). **DePenning & DePenning;velachery main
road; guindy; Chennai 600032 INDIA**