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Ref. No POC/Application No/ 3712/CHE/2011

Date of Dispatch/Email: 06/01/2017

To
RAMESH KUMAR, SEQUENT SCIENTIFIC LIMITED, 120 A & B, INDUSTRIAL AREA, BAIKAMPADY,
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Subject: Examination report under sections 12 & 13 of the Patents Act, 1970 and the Patents Rules, 2003.

1. Please find enclosed herewith an Examination Report in respect of the above mentioned application. This report is issued with reference to the request for examination dated 12/01/2012.
2. The instant application shall be deemed to have been abandoned under Section 21(1) of the Patents Act, 1970, unless all the requirements raised in this report are complied within the period mentioned in para 1 above.
3. You are advised to file thereply at the earliest for early disposal.

AHILAN B
Controller of Patents

Enclosed: As above

NOTE: This is an electronically generated report.
All communications should be sent to the Controller of Patents at the above mentioned address.

Examination Report

Application Number	3712/CHE/2011
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Date of filing	31/10/2011
Date of priority	-
Date of PCT International Application	-
Applicant	SEQUENT SCIENTIFIC LIMITED
Agent	Individual
Request for Examination no. & date	389/RQ-CHE/2012 12/01/2012
Date of Publication	02/12/2011

This examination report consists of four parts, namely summary of the report, detailed technical report, formal requirements and documents on record.

PART-I: SUMMARY OF THE REPORT

Sl. No.	Requirements under the Act	Claim Numbers	Remarks	
1.	Invention u/s 2(1)(j)	Novelty	Claims:1-6 Yes	
			Claims:7 No	
		Inventive step	Claims: Claims:1-7	Yes No
			Claims:1-7	Yes
		Industrial Applicability	Claims:1-7	Yes
			Claims:	No
2.	Non-patentability u/s 3 (if yes, specify section3(a-p))	Claims:1-7	Yes d	
		Claims:	No	
3.	Non-patentability u/s 4	Claims:	Yes	
		Claims:	No	
4.	Unity of invention u/s 10 (5)	Claims:	Yes	
		Claims:	No	
5.	Sufficiency of disclosure u/s 10 (4) (Specify Yes/No)			
6.	Reference to co-pending/foreign application(s) required (Specify Yes/No)			
7.	Claims [u/s 10(5) & 10(4) (c)]	Clarity / Conciseness	Claims: Yes	
			Claims:1,3,7 No	
		Definitive	Claims: Yes	

		Supported by description	Claims:	No
			Claims:	Yes
		Scope	Claims:	No
			Claims:	Yes
8.	Other requirement(s):			

PART-II: DETAILED TECHNICAL REPORT

A. List of documents cited:

Sl.no	Details of documents	Priority date	Publication date	Relevant description (page and paragraph no.) of cited document	Relevant claims of cited document	Claims of alleged invention
A Patent literature						
1.	D1: US 6600046 B2		29/06/2003	Abstract, column 1-2, examples;	1-2	1-5
2.	D2: WO 99/15503		01/04/1999	Abstract, page 11, lines 1-10 and page 13, lines 4-11;		1-5
3.	D3: US 6897339 B2		24/05/2005	Abstract, column 4, lines 6-18;	1-2	6-7
4 D4: US 7355048 B2, 08/04/2008;						

Sl.no	Details of documents	Priority date	Publication date	Relevant description (page and paragraph no.) of cited document	Relevant claims of cited document	Claims of alleged invention
B Non-patent literature						
1.						
2.						

3.						
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B. Detailed observations on the requirements under the Act:

NOVELTY:

(i) Claim(s) 7 lack(s) novelty, being anticipated in view of disclosure in the document cited above under reference D1 to D4 for the following reasons:

Claim 7 is well known in the art, Product by process claim can not be allowed unless the product is new.

INVENTIVE STEP:

(ii) Claim(s) 1-7 lack(s) inventive step, being obvious in view of teaching (s) of cited document(s) above under reference D1-D3 for the following reasons:

The subject matter of claims 1-7 do not meet the requirements of section 2(1)(ja) of The Patents Act, since they do not involve an inventive step over the disclosure of documents D1-D4:(See above Table, Part-II for full details of the references)The invention of claims 1-7 in present application pertains to process for the preparation of 1-(6-methylpyridin-3-yl)-2-[(4-(methylsulphonyl) phenyl]ethanone of formula-I in four steps. Which includes: (a) condensation step, (b) hydrolysis and decarboxylation, (c) insitu oxidation and (d) purification.Document D1 discloses process for the preparation of 1-(6-methylpyridin-3-yl)-2-[(4-(methylsulphonyl) phenyl]ethanone in three steps. These includes (a) similar condensation to give 3-[2-(4-(methylthio)phenyl)- 2-cyanoacetyl](6-methyl)pyridine.(b) similar hydrolysis and decarboxylation to give 3-[2-(4-(methylthio)phenyl)acetyl(6-methyl)pyridine.c) oxidation of compound in step b in presence of hydrogen peroxide to give Ketosulfone of required compound. Document D1 does not teach the oxidation in step c as insitu in the presence of H₂SO₄, & acetic acid and in absence of an alkali metal tungstate catalyst.Document D2 teaches the oxidation of 3-[2-(4-(methylthio)phenyl) acetyl](6-methyl)pyridine in presence of hydrogen peroxide and acid wherein the acid is a mixture of H₂SO₄ and acetic acid, in the absence of the alkali metal tungstate.Document D3 teaches a method of producing a >99% pure organic compound from a crude product by hot pulping with an alcoholic solvent.Thus in view of the teachings of D1-D4, a person skilled in the art would be motivated to combine the teachings of D2 concerning the non-catalytic oxidation of the ketosulfide to the corresponding ketosulfone, with the teachings of D1 concerning a process for the preparation of claimed compound of formula-I, at the same time from teachings of D3 he could apply the hot pulping method to the ketosulfone product produced by the process of the combination of D1-D2 without applying any inventive ingenuity. Hence, the subject matter of instant claims 1-7 cannot be considered as involving an inventive step under section 2(1)(ja) of The Patents Act.

INDUSTRIAL APPLICABILITY:

(iii) Claim(s) lack(s) industrial applicability for the following reasons:

Not Applicable

NON PATENTABILITY:

(iv) Claim(s) 1-7 are statutorily non-patentable under the provision of clause (d) of Section 3 for the following reasons:

Claims 1-7 fall under section 3(d) of the Patents Act, as claimed process is a mere use of a known process of D1, and which doesn't results in a new product or employs a new reactant. In the absence comparative data with respect purity or yield of claimed process against prior art D1 and D4, effectiveness of instant process cannot be acknowledged.

(v) Claim(s) are not allowable under section 4 of the Patents Act, 1970. Not Applicable

UNITY OF INVENTION:

(vi) Claim(s) lack(s) unity of invention as the claims do not relate to a single invention or to a group of inventions linked so as to form a single inventive concept:

Not Applicable

(vii) Claim(s) of the instant application conflict(s) with claim(s) of co-pending application no.

SUFFICIENCY OF DISCLOSURE:

(viii) Claim(s) are not fairly based on the matter disclosed in the specification or not supported by the disclosure in the specification for the following reasons:

Not Applicable

(ix) The complete specification does not fully and particularly describe the invention and its operation and the method by which it is to be performed in respect of:

Not Applicable

(x) The specification does not disclose the best method of performing the invention which is known to the applicant and for which he is entitled to claim protection for the following reasons:

Not Applicable

(xi) Abstract:

Not Applicable

(xii) Title of Invention:

Not Applicable

(xiii) Drawings are not prepared in accordance with the provisions of Rule 15 of the Patents Rules, 2003 for the following reasons:

Not Applicable

(xiv) Information of source and geographical origin of biological material used in the invention:

Not Applicable

(xv) Details of depositing the biological material to an International Depository Authority under the Budapest Treaty:

Not Applicable

SCOPE:

(xvi) Claim(s) does/do not define the scope of invention for which the protection is claimed for the following reasons:

Not Applicable

CLARITY AND CONCISENESS:

(xvii) Claim(s) 1,3,7 are not clearly worded in respect of:

Claims 1, 3 and 7 are not clearly worded with respect to expressions like “optionally”, “and/or”, “less than” etc., and thereby said claims do not meet the requirements of section 10(4) of The Patents Act.

DEFINITIVENESS:

(xviii) Claim(s) do not sufficiently define the invention for the reasons as follows:

Not Applicable

OTHERS REQUIREMENTS:

(xix) Not Applicable

PART-III: FORMAL REQUIREMENTS

Objections	Remarks
Statement & Under Taking (Form 3 Details)	Updated details of foreign filing particulars under the provisions of the Section 8(1) of the Patents Act, 1970 shall be submitted with necessary petition if required. Further, the documents as required by section 8(2) shall also be submitted within the prescribed period of time (06-months) from the date of this communication.
Format of Specification (rule 13)	Abstract should be filed in the prescribed manner as per rule 13(7) of The Patents Rules 2003 (as amended), i.e. it shall be commenced with title of invention.
Other Deficiencies	(A) Declaration as inventor ship shall be submitted in Form-5 according to section 10(6) and Rule 13(6).

PART-IV: DOCUMENTS ON RECORD

The examination report has been prepared based on the following documents:

Request For Examination WITH REFERENCE NUMBER 389/RQ-CHE/2012 FILLED ON 12 Jan 2012

Name of the Controller: AHILAN B

Note: Last date for filing response to the Examination Report: 06/07/2017