



**INTELLECTUAL  
PROPERTY INDIA**

एकस्व/PATENTS|अभिकल्प/DESIGNS|  
व्यापार चिह्न/TRADE MARKS|भौगोलिक  
उपदर्शन/GEOGRAPHICAL INDICATIONS



सत्यमेव जयते

**भारत सरकार  
GOVERNMENT OF INDIA**

एकस्व कार्यालय /THE PATENT OFFICE  
बौद्धिक सम्पदा भवन / I.P.O. BUILDING  
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सं.संख्या/Ref.No /आवेदन संख्या/Application No/ 201911015812

दिनांक/Date of Dispatch/Email: 16/09/2021

सेवा में,/To

MAHESH BABANI ,  
MAHESH BABANI 4TH FLOOR, SAHARA GRACE, (BEHIND SAHARA MALL), OFF M.G. ROAD,  
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**विषय:** एकस्व अधिनियम, 1970 की धारा 12 व 13 तथा एकस्व नियम, 2003 के अधीन परीक्षण रिपोर्ट

**Subject:** Examination report under sections 12 & 13 of the Patents Act, 1970 and the Patents Rules, 2003.

1. उपर्युक्त आवेदन के संदर्भ में परीक्षण रिपोर्ट ( अर्थात, एकस्व नियम, 2003 (यथा संशोधित) के नियम 24-ख(3) में विनिर्दिष्ट आपत्तियों का प्रथम कथन ) इसके साथ संलग्न है। यह रिपोर्ट परीक्षण हेतु अनुरोध दिनांक 29/07/2020 के उत्तर में जारी की गयी है। परीक्षण रिपोर्ट का उत्तर दाखिल करने की अंतिम तिथि (अर्थात, इस रिपोर्ट में लगाई गयी सभी आवश्यकताओं के अनुपालन की अवधि) आवेदक को आपत्तियों का प्रथम कथन जारी होने की तिथि से छः माह है।

Please find enclosed herewith an Examination Report ( i.e. a first statement of objections as specified in Rule 24-B(3) of The Patents Rules, 2003 (as amended) ) in respect of above-mentioned application. This report is issued with reference to a request for examination dated 29/07/2020. The last date for filing a response to the Examination Report (i.e. a period to comply with all the requirements raised in this examination report) is six months from the date on which the first statement of objections is issued to the Applicant.

2. यदि रिपोर्ट के अंतर्गत लगाई गयी आवश्यकताओं का अनुपालन एकस्व नियम, 2003 (यथा संशोधित) के नियम 24 ख(5) में विनिर्दिष्ट अवधि के भीतर अंदर अनुपालन नहीं किया गया तो एकस्व अधिनियम 1970 की धारा 21(1) के अधीन वर्तमान आवेदन को परित्यक्त माना जाएगा।  
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 with in the period as specified in Rule 24-B (5) of The Patents Rules, 2003 (as amended).

3. आपका ध्यान एकस्व नियम, 2003 के नियम 24 ख(6) के प्रावधानों की ओर भी आमंत्रित किया जाता है।  
Your attention is also invited to the provisions of Rule 24-B (6) of the Patents Rules 2003.

4. आपको सलाह दी जाती है कि शीघ्र निपटान हेतु अपना उत्तर शीघ्र प्रस्तुत करें।  
You are advised to file the reply at the earliest for early disposal.

**Dr. Subramaniyan S P**  
नियंत्रक पेटेंट/ Controller of Patents

**संलग्न/Enclosed:** अपरोक्त अनुसार/As above

**टिप्पणी:** यह इलेक्ट्रॉनिक रूप से उत्पन्न रिपोर्ट है।

**NOTE:** This is an electronically generated report.

सभी पत्राचार नियंत्रक एकस्व को उपरोक्त पते पर भेजा जाये।

All communications should be sent to the Controller of Patents at the above mentioned address.

## परीक्षण रिपोर्ट / Examination Report

आवेदन संख्या /Application Number	201911015812
दाखिल करने की तिथि /Date of Filing	22/04/2019
पूर्विका दिनांक /Date of Priority	--
पीसीटी अंतर्राष्ट्रीय आवेदन की संख्या व दिनांक / PCT International Application No. & Date	--
आवेदक /Applicant	MAHESH BABANI
परीक्षण हेतु अनुरोध की संख्या व दिनांक /Request for Examination No. & Date	R20201022879 29/07/2020
प्रकाशन की तिथि /Date of Publication	20/08/2021

इस परीक्षण रिपोर्ट के चार भाग हैं, अर्थात रिपोर्ट का सारांश, विस्तृत तकनीकी रिपोर्ट, औपचारिक आवश्यकताएँ तथा रिकॉर्ड में दस्तावेज़ /  
This examination report consists of four parts, namely summary of the report, detailed technical report, formal requirements and documents on record.

### भाग -1: रिपोर्ट का सारांश

#### PART-I: SUMMARY OF THE REPORT

क्र. सं. /Sl. No.	अधिनियम के तहत आवश्यकताओं पर विस्तृत टिप्पणियाँ /Requirements under the Act	दावों की संख्या /Claim Numbers	टिप्पणी /Remarks
1.	धारा 2(1)(ब) के तहत आविष्कार /Invention u/s 2(1)(j)	नवीनता /Novelty	दावे /Claims: 1-8 हाँ /Yes
		आविष्कारी कदम / Inventive step	दावे /Claims: हाँ /Yes
		औद्योगिक उपयोगिता /Industrial Applicability	दावे /Claims: 1-8 हाँ /Yes
			दावे /Claims: हाँ /Yes
2.	धारा 3 के अधीन पेटेंट-अयोग्यता (यदि हाँ, खंड 3(क-त) /Non-patentability u/s 3 (if yes, specify section3(a-p))	दावे /Claims: 1-8	हाँ /Yes 3(d)
		दावे /Claims:	हाँ /Yes
3.	[धारा 10(5) व 10(4) (ग)] के अधीन दावे /Claims [u/s 10(5) & 10(4) (c)]	स्पष्टता/ संक्षिप्तता /Clarity / Conciseness	दावे /Claims: हाँ /Yes
			दावे /Claims: 1-8 हाँ /Yes

### भाग -II विस्तृत तकनीकी रिपोर्ट

#### PART-II: DETAILED TECHNICAL REPORT

#### क. उद्धरित दस्तावेजों की सूची /A.List of documents cited:

(क) पेटेंट साहित्य / (a). Patent Literature :

क्र. सं. / Sl.no	दस्तावेजों का विवरण /Details of documents	प्रकाशन तिथि(दिन/माह/वर्ष) / Publication date	उद्धरित दस्तावेज का प्रासंगिक विवरण (पृष्ठ व अनुच्छेद संख्या) / Relevant description (page and paragraph no.) of cited document	उद्धरित दस्तावेज के प्रासंगिक दावे / Relevant claims of cited document	अभिकथित आविष्कार के दावे /Claims of alleged invention
1	D2: US 3494959 A	10/02/1970	Example-1		1-8

(ख) गैर-पेटेंट साहित्य / (b). Non-patent literature

क्र. सं. / Sl.no	दस्तावेजों का विवरण / Details of documents	प्रकाशन तिथि (दिन/माह/वर्ष) / Publication date	उद्धरित दस्तावेज का प्रासंगिक विवरण (पृष्ठ व अनुच्छेद संख्या) / Relevant description (page and paragraph no.) of cited document	अभिकथित आविष्कार के दावे / Relevant claims of cited document	अभिकथित आविष्कार के दावे / Claims of alleged invention
1	D1: Aldol Condensations Using Bio-oil Model Compounds: The Role of Acid-Base Bi-functionality, Top Catal (2010) 53:1248-1253, <a href="https://doi.org/10.1007/s11244-010-9576-7">https://doi.org/10.1007/s11244-010-9576-7</a>	28/05/2010	Figure-4		1-8

**ख. अधिनियम के तहत आवश्यकताओं पर विस्तृत टिप्पणियाँ / B. Detailed observations on the requirements under the Act:**

**(1). आविष्कारी कदम / INVENTIVE STEP:**

(I) ऊपर उद्धरित दस्तावेज (जों) के संदर्भ D1 and D2 में स्पष्ट अध्यापन (जों) को ध्यान में रखते हुए, निम्नलिखित कारणों से दावा (वों) (1-8) में आविष्कारी कदम की कमी है

Claim(s) (1-8) lack(s) inventive step, being obvious in view of teaching (s) of cited document(s) above under reference D1 and D2 for the following reasons:

The instant application relates to preparation of 4-Hexen-3-one.

D1 discloses preparation of 4-Hexen-3-one by cross aldol condensation of acetaldehyde and MEK in presence of bi-functional aluminophosphate catalyst (Fig-4 and Table-4).

D2 discloses preparation of unsaturated ketones like 3-pentene-2-one by cross aldol condensation of acetaldehyde and acetone in presence of sodium hydroxide. The temperature of the reaction mixture was maintained at 50–55° C. throughout the acetaldehyde addition. Additional 0.2N Sodium hydroxide was added during the addition of acetaldehyde to maintain a pH of 8.0 to 9.0. To maintain the desired basicity, an additional 150 to 240 ml of 0.2 N sodium hydroxide was required. Upon completion of the acetaldehyde addition, the temperature was maintained at 50 to 55° C. for an additional hour after which the reaction mixture was neutralized with 8 to 12 g. oxalic acid. Excess acetone was removed by distillation from the reaction mixture until a pot temperature of 95 to 105 C. was obtained. The residue was cooled and 170 ml. of 50% aqueous sulfuric acid added. Distillation was resumed and the ketone-water azeotrope collected until a pot temperature of 145° C. was obtained. The aqueous layer was extracted with three 1000 ml. portions of benzene and the benzene combined with the organic phase (Example-1).

D1 is the closest prior art and disclosed preparation of 4-Hexen-3-one (unsaturated ketone) by cross aldol condensation of acetaldehyde and MEK. Moreover, the main difference between the base Sodium hydroxide used in instant application where as D1 used aluminophosphate. The problem to be solved by the present invention can therefore be considered to be that of providing an alternate preparation method. The proposed solution of the present application cannot be considered to involve an inventive step because it is known from D2 (examples) that preparation of unsaturated ketones like 3-pentene-2-one by cross aldol condensation of acetaldehyde and acetone in presence of sodium hydroxide. Therefore, the replacement of aluminophosphate by sodium hydroxide in reaction as disclosed in D 1 would be considered by a person skilled in the art to be a routine solution for solving the stated problem. Further applicant does not provided any technical advancement of the instant application. In the absence of comparative data or any other such information with regard to the

closest prior art, it is impossible to ascertain whether there is a technical advancement of the present application with respect to cited documents D1 and D2. Hence inventive step cannot be acknowledged to the subject-matter of claims 1-8 under section 2(1)(ja) of the patents act, 1970.

## (2).पेटेंट अयोग्यता /NON PATENTABILITY:

(I) निम्नलिखित कारणों से धारा 3 के खंड (3(d) )के प्रावधान के तहत दावा(वे) (1-8) सांविधिक रूप से पेटेंट योग्य नहीं हैं / Claim(s) (1-8) are statutorily non-patentable under the provision of clause ( 3(d) ) of Section 3 for the following reasons:

The subject matter disclosed in claims 1-8 is the mere use of known process disclosed in prior art document D1 and D2. The applicant had failed to show the significant technical advancement over known process. Hence claims 1-8 are not patentable u/s 3(d) of the Patents Act, 1970.

## (3).प्रकटन की दक्षता /SUFFICIENCY OF DISCLOSURE:

## (4).स्पष्टता एवं संक्षिप्तता /CLARITY AND CONCISENESS:

(I) दावा(वे) 1-8 के संबंध में स्पष्ट रूप से परीभाषित नहीं हैं.  
Claim(s) 1-8 are not clearly worded in respect of:

1. Applicant should show working examples support and basis of dehydration step by inorganic acid or carboxylic acids from C1 - C6 carboxylic acid or dicarboxylic acid from C1 - C6 dicarboxylic acid or halogenated carboxylic acid from C1-C6 carboxylic acid or halogenated dicarboxylic acid from C1-C6 dicarboxylic acid or any combination thereof as disclosed in claim-1.

2. Applicant should show working examples support and basis for claim-2.

3. Applicant should show working examples support and basis of dehydration step by f Inorganic acid or Organic acid or acidic resin or zeolites or silica or any other known in art as disclosed in claim-7.

## भाग – III: औपचारिक आवश्यकताएँ /PART-III: FORMAL REQUIREMENTS

आपत्तियां /Objections	टिप्पणी /Remarks
Statement & Under Taking (Form 3 Details)	<p>1. Details regarding application for Patents which may be filed outside India from time to time for the same or substantially the same invention should be furnished within six months from the date of filing of the said application under clause (b) of sub section(1) of section 8 and rule 12(2) of the Patents Act and Rules.</p> <p>2. Details regarding the search and/or examination report including claims of the application allowed, as referred u/s 8(2) of the Patents Act, in respect of same or substantially the same invention filed in all the major Patent office's such as USPTO, EPO and JPO etc., along with appropriate English translation where applicable, should be submitted within a period of six months from the date of receipt of this communication as provided under u/r 12(3) of the Patents Rules.</p>

## भाग-IV: रिकॉर्ड में दस्तावेज़ /PART-IV: DOCUMENTS ON RECORD

निम्नलिखित दस्तावेजों के आधार पर यह परीक्षण रिपोर्ट तैयार की गयी है

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

कार्यसूची तिथि / Docket Date	कार्यसूची संख्या /Docket Number	प्रविष्टि संख्या विवरण /Entry Number Description
22 Apr 2019	38737	1-New Application For Patent With Provisional /Complete Specification
22 Apr 2019	38737	3-Statement & Undertaking - Form 3
22 Apr 2019	38737	2-Complete After Provisional Specification - Form 2 Check For No. OF Pages & Claims
22 Apr 2019	38737	5-Declaration As To Inventorship - Form 5
20 Apr 2020	42741	2-Complete After Provisional Specification - Form 2 Check For No. OF Pages & Claims
29 Jun 2020	65823	2-Complete After Provisional Specification - Form 2 Check For No. OF Pages & Claims
29 Jul 2020	76983	28(i)-Request For Examination After 18 months Publication - Form 18

नियंत्रक का नाम /Name of the Controller: [Dr. Subramaniyan S P](#)

नियंत्रक स्थान /Controller Location: [Chennai](#)

टिप्पणी: परीक्षण रिपोर्ट का उत्तर दाखिल करने की अंतिम तिथि / Note: Last date for filing response to the Examination Report:  
16/03/2022