

## ***Criterion III: Research, Innovations and Extension***

### **Key Indicator 3.2- Innovation Ecosystem**

***3.2.1: Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge (patents filed, published, incubation center facilities in the HEI to be considered)***

The Institution provides an active environment for promotion of Innovation and Incubation. Necessary support is provided for Documentation, Publication of Research Papers and also for obtaining patents. Awareness meets, workshops, seminars and guest lectures on Entrepreneurship are organized. Students are provided opportunities to directly interact with outstanding entrepreneurs excelling in their field. The main objective of Research and development committee is to promote research culture among students and staff. The institution has encouraged staff to attend and present their paper in national and international seminars, workshops and conference. The Research Committee also encourage students to participate in the Avishkar Research Competition.

❖ **Patent Information:**

○ **Patent Filed: 02**

<b>Sr. No.</b>	<b>Title of the Patent</b>	<b>Name of the Inventor</b>	<b>Date of Filing</b>	<b>Application number</b>
1	SUBSTITUTED BENZOFURAN COMPOUNDS AS ANTIBACTERIAL AGENT	Dr. Akolkar H. N.	17/04/2023	202321028067
2	SUBSTITUTED 1, 2, 3 TRIAZOLE COMPOUNDS AS ANTIOXIDANT AGENT	Dr. Akolkar H. N.	29/10/2022	202221061719

○ **Patent Published: 01**

<b>Sr. No.</b>	<b>Title of the Patent</b>	<b>Name of the Inventor</b>	<b>Date of Publication</b>	<b>Application number</b>
1	SUBSTITUTED 1, 2, 3 TRIAZOLE COMPOUNDS AS ANTIOXIDANT AGENT	Dr. Akolkar H. N.	11/11/2022	202221061719

❖ **Avishkar Research Convention Participation:**

- **Intercollegiate Level:** 12 Students were participated

<b>Sr. No.</b>	<b>Name of the Student</b>	<b>Subject</b>	<b>Level</b>
1.	Ms. Bakalkar P. D.	Commerce	PG
2.	Ms. Masurkar K. M.	Commerce	UG
3.	Ms. Pitalekar M. R.	H.L.F.A.	UG
4.	Ms. Dhavale D. P.	H.L.F.A.	UG
5.	Mr. Kudalkar M. U.	H.L.F.A.	UG
6.	Ms. Bawale P. R.	Science	UG
7.	Ms. Pujari N. R.	Science	UG
8.	Ms. Naik A. S.	Science	UG
9.	Mr. Yedage L. B.	Science	UG
10.	Ms. Patel M. N.	Science	UG
11.	Mr. Amberkar S. V.	Science	UG
12.	Mr. Bakalkar S. S.	H.L.F.A.	UG

- **University Level:** 02 students were selected

<b>Sr. No.</b>	<b>Name of the Student</b>	<b>Subject</b>	<b>Level</b>
1.	Ms. Bawale P. R.	Science	UG
2.	Ms. Pujari N. R.	Science	UG

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202221061719 A

(19) INDIA

(22) Date of filing of Application :29/10/2022

(43) Publication Date : 11/11/2022

(54) Title of the invention : SUBSTITUTED 1, 2, 3 TRIAZOLE COMPOUNDS AS ANTIOXIDANT AGENT

(51) International classification :A61P0031100000, C12N0007000000, A61P0035020000, C07D0403120000, A61P0007000000  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

**1)Dr. Hemantkumar Navnath Akolkar**

Address of Applicant :Department of Chemistry, Abasaheb Marathe Arts and New Commerce, Science College, Rajapur, Dist- Ratnagiri-416702, Maharashtra, India Rajapur -----

**2)Mr. Ramesh A. Kawale**

**3)Dr. Mubarak Hanif Shaikh**

**4)Dr. Vijay Khedkar**

**5)Ms. Nirmala Ramdas Darekar**

**6)Dr. Dipak N. Raut**

**7)Dr. Sharad Narayan Shelke**

**8)Mr. Jaidip B. Wable**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)Dr. Hemantkumar Navnath Akolkar**

Address of Applicant :Department of Chemistry, Abasaheb Marathe Arts and New Commerce, Science College, Rajapur, Dist- Ratnagiri-416702, Maharashtra, India Rajapur -----

**2)Mr. Ramesh A. Kawale**

Address of Applicant :Department of Chemistry, Arts, Science and Commerce College, Mokhada- 401604, Dist- Palghar, Maharashtra, India Mokhada -----

**3)Dr. Mubarak Hanif Shaikh**

Address of Applicant :Department of Chemistry, Radhabai Kale Mahila Mahavidyalaya, Ahmednagar, Dist- Ahmednagar-414001, Maharashtra, India Ahmednagar -----

**4)Dr. Vijay Khedkar**

Address of Applicant :School of Pharmacy, Vishwakarma University, Pune-411048, Maharashtra, India Pune -----

**5)Ms. Nirmala Ramdas Darekar**

Address of Applicant :Department of Chemistry, Radhabai Kale Mahila Mahavidyalaya, Ahmednagar, Dist- Ahmednagar-414001, Maharashtra, India Ahmednagar -----

**6)Dr. Dipak N. Raut**

Address of Applicant :A.V.C.O.P., Sangamner, Dist-Ahmednagar-422608, Maharashtra, India Ahmednagar -----

**7)Dr. Sharad Narayan Shelke**

Address of Applicant :Department of Chemistry, R. B. N. B. College, Shrirampur, Dist- Ahmednagar-413709, Maharashtra, India Shrirampur --

**8)Mr. Jaidip B. Wable**

Address of Applicant :K J Somaiya College of Science and Commerce, Vidyavihar, Mumbai- 400077, Maharashtra, India Mumbai -----

(57) Abstract :

ABSTRACT SUBSTITUTED 1, 2, 3 TRIAZOLE COMPOUNDS AS ANTIOXIDANT AGENT The Invention is relates to substituted 1, 2, 3 Triazole compounds of Formula (I) and pharmaceutical acceptable salts, wherein substitutes as described herein, and their use in medicine as an anti-oxidant agents. The invention is also related to pharmaceutical composition thereof.

No. of Pages : 25 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321028067 A

(19) INDIA

(22) Date of filing of Application :17/04/2023

(43) Publication Date : 02/06/2023

(54) Title of the invention : SUBSTITUTED BENZOFURAN COMPOUNDS AS ANTIBACTERIAL AGENT

(51) International classification :A61K 31/343, A61K 31/381, A61P 31/10, C07D 307/86, C07D 407/06  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

**1)Dr. Hemantkumar Navnath Akolkar**

Address of Applicant :Department of Chemistry, Abasaheb Marathe Arts and New Commerce, Science College, Rajapur, Dist- Ratnagiri-416702, Maharashtra, India Ratnagiri -----

**2)Dr.Sujata G. Dengale**

**3)Ms. Nirmala Ramdas Darekar**

**4)Dr. Mubarak Hanif Shaikh**

**5)Dr. Vijay Khedkar**

**6)Dr. Keshav K. Deshmukh**

**7)Mr. Ganesh Bhangare**

**8)Mr. Sandesh D. Kasar**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)Dr. Hemantkumar Navnath Akolkar**

Address of Applicant :Department of Chemistry, Abasaheb Marathe Arts and New Commerce, Science College, Rajapur, Dist- Ratnagiri-416702, Maharashtra, India Ratnagiri -----

**2)Dr.Sujata G. Dengale**

Address of Applicant :Department of Chemistry, S.N. Arts, D.J. Malpani Commerce and B.N. Sarda Science College, Sangamner, Dist. Ahmednagar-422605, Maharashtra , India Sangamner -----

**3)Ms. Nirmala Ramdas Darekar**

Address of Applicant :Department of Chemistry, Radhabai Kale Mahila Mahavidyalaya, Ahmednagar, Dist- Ahmednagar-414001, Maharashtra, India Ahmednagar -----

**4)Dr. Mubarak Hanif Shaikh**

Address of Applicant :Department of Chemistry, Radhabai Kale Mahila Mahavidyalaya, Ahmednagar, Dist- Ahmednagar-414001, Maharashtra, India Ahmednagar -----

**5)Dr. Vijay Khedkar**

Address of Applicant :Department of Pharmaceutical Chemistry, School of Pharmacy, Vishwakarma University, Pune-411048, Maharashtra, India Pune -----

**6)Dr. Keshav K. Deshmukh**

Address of Applicant :Department of Chemistry, S.N. Arts, D.J. Malpani Commerce and B.N. Sarda Science College, Sangamner, Dist. Ahmednagar-422605, Maharashtra , India Sangamner -----

**7)Mr. Ganesh Bhangare**

Address of Applicant :Rayat Shikshan Sanstha's Mahatma Phule Mahavidyalaya, Pimpri, Pune-411017, Maharashtra, India Pune -----

**8)Mr. Sandesh D. Kasar**

Address of Applicant :Department of Chemistry, Agasti Arts, Commerce and DadasahebRupawate Science College, Akole, Tal- Akole, Dist- Ahmednagar-422601, Maharashtra, India Akole -----

(57) Abstract :

ABSTRACT SUBSTITUTED BENZOFURAN COMPOUNDS AS ANTIBACTERIAL AGENT The invention is relates to substituted benzofuran compounds of Formula (I) and pharmaceutical acceptable salts, wherein substitutes as described herein, and their use in medicine as an antibacterial agents. The invention is also related to pharmaceutical composition thereof.

No. of Pages : 29 No. of Claims : 8



University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Ms. Bakalkar Purva Deepak** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **Accounting for investments and investment avenues selected by investors in the Ratnagiri district of Maharashtra in Commerce, Management and Law Category and PG Level** at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Ms. Masurkar Kalyani Mahadev** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **Constraints Analysis of Online Shopping Perspective in Ratnagiri District in Commerce, Management and Law** Category and **UG Level** at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Ms. Pitalekar Manasi Rajesh** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **कोरोना नंतरची आव्हाने** in **Humanities, Languages and Fine Arts** Category and **UG** Level at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Ms. Dhavale Dhanashri Pradeep** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **A study of social aspects of Galsworthy's play Strife in Humanities, Languages and Fine Arts** Category and **UG** Level at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri







University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Mr. Kudalkar Mahendra Umaji** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **संत तुकारामांच्या अभंगातील जीवनमूल्ये** in **Humanities, Languages and Fine Arts** Category and **UG** Level at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Mr. Kudalkar Mahendra Umaji** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **संत तुकारामांच्या अभंगातील जीवनमूल्ये** in **Humanities, Languages and Fine Arts** Category and **UG** Level at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Ms. Bawale Pratiksha Rajendra of Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **Efficacy of Pancharni Extract on *Mangifera indica* L. Var. Alhonso in Agriculture and Animal Husbandry** Category and **UG Level** at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Ms. Pujari Nandini Rajan** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **Efficacy of Panchparni Extract on Mangifera indica L. Var. Alhonso** in **Agriculture and Animal Husbandry** Category and **UG** Level at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Ms. Naik Afifa Siraj** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **To Construct a Hand Powered Portable Mobile Charger in Pure Sciences** Category and **UG** Level at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Mr. Yedage Lahu Balu** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **To Construct a Hand Powered Portable Mobile Charger in Pure Sciences** Category and **UG** Level at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Ms. Patel Manasi Nilesh** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **An introductory study of ant diversity in and around college campus.** in **Agriculture and Animal Husbandry** Category and **UG** Level at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri





University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

## *Certificate of Participation*

This is to Certify that **Mr. Amberkar Suraj Vijay of Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **An introductory study of ant diversity in and around college campus.** in **Agriculture and Animal Husbandry** Category and **UG** Level at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri







University of Mumbai

17<sup>th</sup>  
**Aavishkar**

Inter-Collegiate/Institute/Department Research Convention

(Zonal Round)

Academic Year 2022-23

# Certificate of Participation

This is to Certify that **Mr. Bakalkar Saurabh Shashikant** of **Abasaheb Marathe Arts and New Commerce, Science College, Rajapur** has participated and presented a Research Project titled **ब्रिटीश काळातील व्यावसायिक प्रशिक्षणाचे केंद्र- राजापूर हायस्कूल** in **Humanities, Languages and Fine Arts** Category and **UG Level** at 17th Aavishkar: Inter-Collegiate/Institute/Department Research Convention (Zonal Round) organized by the University of Mumbai at Arts, Commerce and Science College, Lanja, Dist.-Ratnagiri on December 19, 2022 for **Ratnagiri** zone.

**Dr. Minakshi Gurav**  
OSD,  
Aavishkar,  
University of Mumbai

**Dr. Sunil Patil**  
Director,  
Department of Students' Development,  
University of Mumbai

December 19, 2022  
Lanja, Dist.-Ratnagiri

