Dr. Ajay Niwruttirao Ambhore

Present Designation: Associate Professor
Department of Chemistry,
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Personal Details

Date of birth: 10th May 1978 **Nationality:** Indian

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Academics

- Ph.D. Swami Ramanand Teearth Marathwada University, Nanded, MS, India – 2017
  Title of thesis: **"Design, Synthesis and Pharmacological Investigation of Some Novel Class of Heterocycles"**
- NET CSIR-UGC - 2006
- M.Sc. Swami Ramanand Teearth Marathwada University, Nanded, MS, India - 2002
- B.Sc. Swami Ramanand Teearth Marathwada University, Nanded, MS, India - 1998

Experience

1. Teaching Experience – UG-**16** Years
   PG-**07** Years
2. Research Experience –**11** years

Research Projects

Sr. No.	Title	Agency	Period	Grant (Rs. lakh)
1	**GREEN APPROACH BASED SYNTHESIS OF BIOACTIVE HETEROCYCLES**	**UGC**	**2013-2015**	**00.85**

Publications

1) Synthesis and biological investigation of isoxazolo[4,5-e][1,2,4]triazine derivatives, Ajay N. Ambhore,Vishwash D. Surywanshi, Rahul D. Kamble, Shrikant V. Hese, Pratima P. Mogle, Shital S. Kadam and Bhaskar S. Dawane, Der Pharma Chemica, 2015, 7(4), 278283.
2) Green synthesis and antimicrobial evaluation ofpyrido[1,2-a]pyrimidine3-carbonitrile derivatives, SV Hese, RD Kamble, PP Mogle, SS Kadam, MJ Hebade, AN Ambhore, Bhaskar S. Dawane, Pharma Chem, 2015, 7, 249-256.
3) A convenient synthesis of some new heterocycles containing dihydro-1Hpyrazolo [3,4-d]pyrimidine scaffold with potential biological activities, Shital S. Kadam, Pratima P.

Mogle, Ajay N. Ambhore, Rahul D. Kamble, Shrikant V. Hese, Shiddhodhan N. Kadam and Bhaskar S. Kadam, Der Pharma Lettre, 2015, 7(5):73-79.

4) Synthesis of 2-phenyl-3H-dipyrimido[1,2-a] pyrimidin-4(5H)-one derivatives and their antifungal activity, SV Hese, RD Kamble, PP Mogle, SS Kamble, MJ Hebade, AN Ambhore, Shiddhodan N. Kadam, Rajesh N.Gacche, Bhaskar S. Dawane Journal of Chemical and Pharmaceutical Research, 2015, 7 (7), 784-790.
5) Synthesis and evaluation of 7,8,9,10-tetrahydro-1H-pyrimido[1,2-a]quinoline2,5-dicarbonitrile derivatives as antimicrobial agents, PP Mogle, SV Hese, RD Kamble, MJ Hebade, AN Ambhore, SN Kadam, Shital S. Kadam, Sonali S. Kamble, Rajesh N.Gacche, Bhaskar S. Dawane, Journal of Chemical and Pharmaceutical Research, 2015, 7 (7), 894-900.
6) A Rapid, Mild and Efficient Method for C-5 Iodination/Thiocyanation of 2-Aminothiazoles, MJ Hebade, RD Kamble, SV Hese, PP Mogle, AN Ambhore, SN Kadam, Bhaskar S. Dawane, Phosphorus, Sulfur, and Silicon and the Related Elements, 2016, 191 (8), 1155-1159.
7) Microwave assisted multi-component reaction: An environmentally benign protocol for the synthesis of substituted imidazo[2,1-b]thiazole-2-carbohydrazide derivatives under solvent free condition, SN Kadam, AN Ambhore, MV Gaikwad, RD Kamble, SV Hese, MJ Hebade, BS Dawane, European Journal of Chemistry 7 (4), 431-435.
8) An Efficient One-pot Synthesis of some New Pyrazolyl Appended 1,3,4-Oxadiazole Derivatives as Antibacterial and Antioxidant agents, Ajay N Ambhore, Rahul D Kamble, Pratima P Mogle, Shrikant V Hese, Shuddhodan N Kadam, Madhav J Hebade, Sonali S Kamble, Rajesh N Gacche, Bhaskar S Dawane, Der Pharma Chemica, 2017, 9(9), 48-56.
9) Synthesis of Pyrazolo [4,3-e] Pyrimido [1,2-a] Pyrimidin-3-Amine Derivatives and their Antimicrobial Activity, Milind V. Gaikwad, Rahul D Kamble, Shrikant V. Hese, Shuddhodan N. Kadam, Ajay N. Ambhore, Bhaskar S. Dawane 2018 5(4): 376-385.
10) Metal-Free One-Pot Chemoselective Thiocyanation of Imidazothiazoles and 2-Aminothiazoles with in situ Generated N-Thiocyanatosuccinimide, Shuddhodan N Kadam, Ajay N Ambhore, Madhav J Hebade, Rahul D Kamble, Shrikant V Hese, Milind V Gaikwad, Priya D Gavhane, Bhaskar S Dawane, Synlett, 2018, 29, 1902-1908.
11) Design, synthesis and in silico study of pyridine based 1,3,4-oxadiazole embedded hydrazinecarbothioamide derivatives as potent anti-tubercular agent, AN Ambhore, SS Kamble, SN Kadam, RD Kamble, MJ Hebade, SV Hese, , Milind V. Gaikwad, Rohan J. Meshram, Rajesh N. Gacche, Bhaskar S. Dawane, Comp. Bio. Chem., 2019, 80, 54-65.
12) Design, synthesis and Pharmacological investigation of pyridine-4-yl triphenyl pyrazol-4-yl-thio-1,3,4-oxadiazole derivatives, Ajay N. Ambhore, Arjun S. Kumbhar, Vishwas D. Suryawanshi, Bhaskar S. Dawane, IJRAR, 2019, 6(2), 589.
13) Polymer supported reagent as a reusable catalyst for an efficient acid catalyzed cyclisation, Vishwas D. Suryawanshi, Arjun Kumbhar, Ajay Ambhore, IJRAR, 2019, 6(2),609.
14) Synthesis of hydrazinylquinoline-3-carbonitrile derivatives using green protocol and screening of their bioactivity, Ajay N. Ambhore, VRJFPS, 2020, 53-65.

15) Metal-free efficient thiolation of C(sp2) functionalization via in situ-generated NHTS for the synthesis of novel sulfenylated 2-aminothiazole and imidazothiazole, Shuddhodan N Kadam, Ajay N Ambhore, Madhav J Hebade, Rahul D Kamble, Shrikant V Hese, Milind V Gaikwad, Priya D Gavhane, Bhaskar S Dawane, NJC, 2021, 45, 4631-4637.
16) DTP/SiO2: An Efficient and Reusable Heterogeneous Catalyst for synthesis of Dihydropyrano[3,2-c]Chromene-3-Carbonitrile Derivative, RD Kamble, MV Gaikwad, MR Tapare, SV Hese, SN Kadam, AN Ambhore, Bhaskar S. Dawane, J. Appl. Organomet. Chem. 2021, 1, 22-28.
17) Eco-friendly Synthesis of Some New Benzylidene-iminothiazolyl-pyrazol-3-ol Derivatives via One-Pot Multi-Component Reaction and Evaluation of Antioxidant Activities, Ajay N. Ambhore, AJOMC, 2021, 6(4): 264-269.
18) A Short Synthesis of Carbazole Alkaloids Murrayanine and Mukonine, MV Gaikwad, RD Kamble, SV Hese, SN Kadam, AN Abhore, SV Gaikwad, AP Acharya, BS Dawane, Chemical Methodologies, 2021, 5 (4), 341-347.
19) Silica-supported sodium carbonate: an efficient heterogeneous catalyst for the synthesis of new thiazolopyrimidine derivatives, PD Gavhane, SN Kadam, AN Ambhore, BS Dawane, Res. Chem. Inte. 2021, 47 (10), 3999-4011.
20) Molecular docking study of selected bio-active compounds in Alzheimer's using BACE-1(PDB ID: 5QCU) as target protein, A Gulwe, ES Chidera, AO Kayode, AN Ambhore, JPTCP, 2023, 30, 787-793.
21) Curcumin-Based Polyurethane Coating: A novel bioactive solution, RD Kamble, SV Hese, MV Gaikwad, AN Ambhore, SN Kadam, BS Dawane, J Chem& its Appli, 2024, 3(3), 1-5.

Book Publications

Book: (E-Book)

1. **Modern Green Chemistry and Heterocyclic Compounds**
   (CRC press Taylor and Francis group)

Hard ISBN: 9781771888325, **E-Book ISBN:** 978-0-429-32860-2

Patent

Patent Granted:

- A RAPID PROCESS FOR THE SYNTHESIS OF ORGANIC SULFIDE BY USING IN SUIT GENERATED N-HETERO SULFANYLSUCCINIMIDESAT ROOM TEMPERATURE.

Patent Filed:

- A PROCESS FOR THE PREPARATION OF HYDRAZINECARBOTHIOAMIDE DERIVATIVES AS POTENT ANTI-TUBERCULOSIS AGENTS.

IPR:

- REGISTRATION OF DESIGN: DIGITAL DEVICE FOR ANALYZING SOIL COMPONENTS

Place: VCK Kolhapur **(Dr. Ajay N. Ambhore)**