# C. V. of Prof.(Dr.) Hangirgekar Shankar Poshatti



#### **Personal information:**

Name in Full: Prof.(Dr.) Hangirgekar Shankar Poshatti

**Designation:** Professor

**Date of Birth:** December 4, 1974

Nationality: Indian Sex: Male

**Phone No.** Mo. +91-9890363931

E-mail: <u>hangirgekarshankare@gmail.com</u>

sph.chem@unishivaji.ac.in

**Languages:** English, Hindi, Marathi, Telgu

### **Academic Qualifications:**

Examinatio	Subject	Year of	Grade	Board /University
n Passed	Subject	Passing	obtained	awarding Degree
Ph. D.	Chemistry	2011	-	SRTMU Nanded
NET	Chemistry	2002		CSIR New Delhi
M. Sc.	Organic Chemistry	2000	В	SRTMU Nanded

### **Research Experience:**

**Ph. D. Degree:** Awarded on March 2011.

**Title of the Thesis:** "Development of novel functional group transformations in organic

synthesis".

Name of Guide: Dr. S. G. Shirodkar,

Department of Chemistry, N.S.B. College, Nanded.

**Current research:** 

heterogeneous catalysts

- Synthesis of heterocycles
- Medicinal Chemistry

### **Teaching Experience:**

- Worked as P.G. core Teacher in Chemistry at LBS College, Dharmabad during July 2001 to July 2003.
- Worked as Lecturer in Chemistry at NSB, College, Nanded during July 2003 to January 2009.
- Worked as Assistant Professor in School of Chemical Sciences, Swami Ramanand Teerth Marathwada University, Nanded, since January 2009 to February 2015.
- Currently working as Professor in Department of Chemistry, Shivaji University, Kolhapur.

### **Details of Ongoing Projects:**

Sr. No	Title of the project	Duration		Budget allocated	Sponsored by	
		From	To	unocutcu		
1.	Synthesis and biological screening of new pyranone carbamate derivatives	2019	2021	2,30,000/-	Shivaji University, Kolhapur	

### **Details of Completed Projects:**

Sr.	Title of the project				Duratio	n	Budget allocated	Sponsored	
No					From	To	anocateu	by	
1.		conversion ns into rapid o ntially bioactiv	ne-po	t synthesis	2012	2015	12,39,800/-	UGC New Delhi	

#### **Awards and Achievements**

- **❖** Qualified National Eligibility Test (NET)-2002
- Indian Patent published (2022)
- German Patent published (2024)
- UK Patent published (2025)

#### **Research Students:**

*	Students	registered for Ph. D	:	06
<b>*</b>	Students	completed Ph. D	:	07
*	Students	completed M. Phil	:	01
*	Students	registered M. Phil	:	01
*	Students	completed M. Sc. Project	:	106

### **Members of Committees:**

Senate Member of Shivaji University, Kolhapur

- ❖ Academic council member of Shivaji University, Kolhapur
- ❖ Academic council member of mahavir College, Kolhapur
- ❖ BOS member of S.R.T.M.University, Nanded
- ❖ BOS member of Rajrshri Shahu College, Latur. (Autonomous)
- ❖ BOS member of Willingdon College sangli. (Autonomous)
- ❖ EC Member of Shivaji University PG Teacher association (SUPTA).
- ❖ Member of grievance committee Shivaji University, Kolhapur.
- Chief Rector of Boys hostel.
- ❖ Life member of International Science Congress Association.
- ❖ Life member of Indian Society of Analytical Scientists.
- ❖ Worked as Treasurer in the international conference on ICACS-2018 organized by department of Chemistry, Shivaji University, Kolhapur, Maharashtra, India. during February 01-03, 2018.
- ❖ Acted as a Secretary in the national conference organized by department of chemistry, Shivaji University, Kolhapur
- ❖ Member of organizing committee of international conference on ICRINT organized by SRTMU Nanded, Maharashtra, India during 13, 14-Jan-2013.
- ❖ Member of organizing committee of National Seminar on Novel Macromolecular Drug targets and drug design organized by School of Chemical Sciences, SRTM University, Nanded Maharashtra, India during 26<sup>th</sup>, March 2012.
- ❖ Member of organizing committee of National Seminar on Innovations in materials and organic synthesis organized by School of Chemical Sciences, SRTM University, Nanded Maharashtra, India during 27<sup>th</sup>, March 2010.
- Member of organizing committee of national level conference on Teaching Chemistry, What do we aim for"? at "NSB College Nanded, Maharashtra, India during March 29-30, 2007.
- Member of Syllabus framing committee UG and PG level, SRTM University, Nanded Maharashtra, India.
- Member of organizing committee of state level seminar on New Horizons in Chemistry, conducted at LBS College Dharmabad, Maharashtra, India during March 9-10, 2002.
- ❖ Member of paper setter, examiner committee UG and PG level, SRTM University, Nanded Maharashtra, India.
- Worked as an officer central assessment program in SRTM University, Nanded Maharashtra, India.
- ❖ Committee member of "Jatropha Plants" SRTM University Nanded Maharashtra, India.

#### **Invited Talk**

- 1. **Hangirgekar Shankar, Invited as Chief Guest in** the one day workshop organized by Y.C. College, karad.
- 2. **Hangirgekar Shankar, Invited Speaker in** Two days National conference on material science and chemistry at Department of Chemistry, Yogeshwari college, Ambajogai.
- 3. **Hangirgekar Shankar, Invited Speaker in** One day workshop on New syllabus o M.sc.I, Sem-I & II at Willingdon College, Sangli.
- 4. **Hangirgekar Shankar, Invited Speaker in** Refresher Course in Chemistry organised by the UGC HRDC 2022, Sant Gadge Baba Amravati University.
- 5. **Hangirgekar Shankar, Invited Speaker in** National Conference on Current Scenario In Chemical And Material Sciences at D.A.B.N. Arts& Sci College, Chikhali.

- 6. **Hangirgekar Shankar, Invited Speaker in** Refresher Course in Chemistry organised by the UGC HRDC, Sant Gadge Baba Amravati University.
- 7. **Hangirgekar Shankar, Invited Speaker in** Refresher Course Chemistry organised by the UGC HRDC 2024, Shivaji University Kolhapur.
- 8. **Hangirgekar Shankar, Invited Speaker in** the one day workshop organized by Shahaji College, Kolhapur.
- 9. **Hangirgekar Shankar, Invited Speaker in** the one day workshop organized by Y.C. College, satara.
- 10.**Hangirgekar Shankar**, Chairperson of the Session, International Conference on advances in materials sciences(ICAMS-2016), Raje Ramrao Mahavidyalaya Jath.
- 11. **Hangirgekar Shankar**, Chairperson of the Session, Newest Developments in Chemical Sciences for Civilized Society (NDCSCS-2016), College of Arts, Comm. And Science, Parbhani.
- 12.**Hangirgekar Shankar**, Chairperson of the Session, **Recent Advances in Integrated Pest Management (RAIPM-2016)**, Department of Agrochemicals and Pest Management, Shivaji University, Kolhapur, March 1-2, 2016.
- 13.**Hangirgekar Shankar**, Use of ZSM-5 in Organic Synthesis, **Invited Speaker in** Refresher Course in Chemistry during November 16-December 06, 2015, organized by the Department of Chemistry, Shivaji University, Kolhapur, November 17, 2015.
- 14.**Hangirgekar Shankar**, Ionic Liquids as Green Solvents, **Invited Speaker in** Refresher Course in Chemistry during November 16-December 06, 2015, organized by the Department of Chemistry, Shivaji University, Kolhapur, November 17, 2015.
- 15. **Hangirgekar Shankar**, Delivered Guest lecture at School of Pharmacy, SRTM University, Nanded, Maharashtra, India.
- 16. **Hangirgekar Shankar**, Delivered Guest lecture at N.S.B. College Nanded, Maharashtra, India.
- 17. **Hangirgekar Shankar**, Delivered eminent lecture for NET/SET on "NMR Spectroscopy" at N.S.B. College Nanded, Maharashtra, India.
- 18. **Hangirgekar Shankar**, Study of heterocycles and their applications, **Invited Speaker in** One day Workshop on "The Scope of Revised Curriculam of M.Sc. Chemistry and applied subjects". Organized by L.B.S. College, Dharmabad, at Swami Ramanand Teerth University, Nanded.

## **Conferences/ Seminars, Workshops Attended:**

#### **International Conferences**

- 1) International Conference on Challenges and opportunities before 21<sup>st</sup> century India in The fields of social Sciences, Science, Management and Technology. Rajarshi Chhatrapati Shahu College, Kolhapur Maharashtra, India.
- 2) Impact of Chemical research on environment. At New Arts, Commerce & Science College, Parner, Maharashtra, India.
- 3) International Conference on Nanotechnology addressing the convergence of materials science, biotechnology and medical science, at D.Y.Patil Education Society, Kolhapur Maharashtra, India.
- 4) International Conference on Chemistry for Mankind: Innovative Ideas in Life Sciences, at Department of Chemistry, RTM University, Nagpur Maharashtra, India.
- 5) International Conference on Emerging Horizons in Biochemical Sciences & Nanomaterial's (EHBCSN-2013), Dept. of Chemistry & Microbiology, Shri Shivaji Mahavidylaya Barshi Maharashtra, India.
- 6) International Conference on Interface between Chemistry & Environment, Dept. of Chemistry, Ramjas College, Delhi , India.

- 7) International Conference on 2<sup>nd</sup> International Science Congress, Bon Maharaj Engineering College, Vrindavan Mathura (UP), India.
- 8) International Conference on ICRINT-2013, School of Chemical Sciences, Life Sciences, Pharmacy And Physical Sciences, SRTMUN Maharashtra, India.
- 9) International conference on TAP SUN:The subtainable future CSIR-IICT Hyderabad Andrapradesh, India.
- 10) International Conference on "Drug Designing and Nano Technology" at Yashawant College Nanded Maharashtra, India.

#### **National Conferences/Seminar:**

- 1) National Conference on Impact of Chemistry & Biology to the Society and Industry at Dept. Of Industrial Chemistry, Kuvempu University, Shivamogga, Karnataka.
- 2) National Conference on Newest Developments in Chemical Sciences for Civilized Society at College of Arts, Comm. And Science, Parbhani Maharashtra, India.
- 3) National Conference on Innovative Research in Chemical Sciences at Innovative Research in Chemical Sciences Maharashtra, India.
- 4) National Conference on Recent Advances in Integrated pest management at Dept. of Agrochemicals And Pest management Shivaji University Kolhapur Maharashtra, India.
- 5) National Conference on Recent trends in bioactive heterocycles Hu.Bahirji Smarak Mahavidyalaya, Basmatnagar Maharashtra, India.
- 6) National Conference on Recent trends in spectroscopy Shri Madhavarao Patil Mahavidyalaya, Murum Maharashtra, India.
- 7) National Conference on Global Environmental Problems, It's Impact & Solutions N.S.B. College, Nanded Maharashtra, India.
- 8) National Conference on Recent Trends in Botany N.S. Science & Arts College, Bhadrawati Maharashtra, India.
- 9) National Seminar on Research Aptitude in Sciences: A Thought, N.S.B. College, Nanded Maharashtra, India.
- 10) National Conference on Plant biotechnology for agriculture and rural development L.B.S. College Dharmabad.
- 11) National Conference on Recent Advances in Chemical Engineering North Maharashtra University, Jalgaon-425 001, Maharashtra, India.
- 12) National Level conference on "Recent Advancement in Studies and Metal Complexes" at Science College Nanded Maharashtra, India.
- 13) National Conference on Innovations in Chemistry-Laboratory to Society North Maharashtra University, Jalgaon-425 001, Maharashtra, India.
- 14) National Seminar on Recent Trends in Chemistry N.S.B. College, Nanded Maharashtra, India.
- 15) National seminar on Recent advances in Organic Chemistry, G.G.College, Nizamabad. Andra Pradesh, India.
- 16) National Conference on Advanced Technologies in Material Science and their applications, Arts, Comm. And Science College, Arvi, Dist. Wardha Maharashtra, India.
- 17) National Conference on "Current Innovations in Chemical Research" at K. J. Somaiya College, Kopargaon Maharashtra, India.

### **State level Conferences/Seminar:**

- 1) State level seminar on "Emerging trends in Chemistry" at Shivaji College, Parbhani Maharashtra, India.
- 2) State level conference on Recent Trends in Chemistry Mahatma Basweshwar Mahavidyalaya

- Latur Maharashtra, India.
- 3) State level Seminar on Current environmental problems P.N.College Nanded Maharashtra, India.

#### Regional level Conferences/Seminar

1) Regional level conference on Botany in agriculture and rural development L.B.S. College Dharmabad Maharashtra, India.

#### National /State level Workshops:

- 1) National Workshop on Advances in Instrumental Techniques, at Shivaji College, Amaravati, Maharashtra, India.
- 2) Workshop on "Chemistry syllabus for B. Sc. Part-III", Deglur College, Deglur, Maharashtra, India.
- 3) "Workshop on Scope and Syllabus of M. Sc. Part-II and B. Sc. Part-II Chemistry" at Science College, Nanded, Maharashtra, India.
- 4) Scope of syllabus on Chemistry at UG and PG level DSM College, Parbhani, Maharashtra, India.
- 5) One day workshop on "Patent: Rules and Regulations" organized by SRTM University Nanded, Maharashtra, India.
- 6) One day workshop on "Analytical Instruments" Organized by NSB College Nanded, Maharashtra, India.
- 7) One day workshop on "Core Competencies and Value System Among Higher Education Students to Meet Global Competency" organized by SRTM University Nanded, Maharashtra, India.
- 8) Workshop on Interdisciplinary Nanoscience, organized by SRTM University Nanded, Maharashtra, India.
- 9) Regional level workshop on New Trends in Revised UGC Model based curriculam at PG level in Chemistry, Organized by D. S. College, Latur, Maharashtra, India.
- 10) National Workshop on Recent techniques in instrumental methods of Chemical Analysis organized by Shri Chhatrapati Shivaji College, Omerga, Maharashtra, India.

#### **List of publications:**

- 1) Reshma Yadav, Rutuja Zond, Pravin Dongare, Suyash Halade, Shubham Deshmukh, Lalit Bhosale, Sandeep Sankpal, Shankar Hangirgekar, Fe304@Si02-Pr-N-DETAAP-Cu(II): A new magnetically separable catalyst for efficient synthesis of 1,4-disubstituted 1,2,3-triazole using click reaction,(2025), Journal of Molecular Structure, 1349 (2026) 143615.
- 2) Govind Salunke, Pradeep Patil, P.S. Takale, P.B. Choudhari, Umesh Sankpal, Arjun Chavan, Reshma Yadav, Shankar Hangirgekar, Sandeep Sankpal, [MerTEA][OH]: An efficient and reusable polymer supported catalyst for one-pot synthesis of spirooxindoles and their anti-inflammatory study, (2025), Journal of Molecular Structure, 1350 (2026) 144021.
- 3) Akshay Gurav, Lalit Bhosale, Prakash N. Chavan, Rutikesh Gurav, Nisha Nerlekar, Padma Dandge, Sneha Rochlani, Sandeep Sankpal, Shankar Hangirgekar, One-pot synthesis of novel hydrazinyl thiazoles using rust and Ficus benghalensis leaf derived Fe2O3/ZrO2 nano-catalyst: Their molecular docking, ADME, antidiabetic, and antioxidant study,(2025), Journal of Molecular Structure, 1338,1-14.
- 4) Reshma Yadav, Rutuja Zond, Vishvjeet Havaldar, Sakshi Mane, Unnati Sasane, Bhaveshwari Budake, Sandeep Sankpal, Shankar Hangirgekar, Synthesis,

- Characterization, and Catalytic Application of Novel Magnetically Separable Fe3O4@SiO2-Pr-NH-TDI-VB1 for Rapid Synthesis of Hydrazinyl Thiazoles, Applied Organometallic Chemistry.,(2025),39, 1-10.
- 5) Shankar Pralhadrao Phulwale, Shivaji Devrao Waghmare, Akshay Pandurang Gurav, Krishna Chaitanya Gunturu, Shankar Poshatti Hangirgekar, Biosynthesis of BiFeO3 for BiFeO3@Ag-S-CH2-COOH as the nanocatalyst for one-pot synthesis of 2, 3-dihydroquinazolin-4(1H)-ones and their anti-blood cancer activity, Journal of Molecular Structure, (2025),1338, 1-13.
- 6) Akshay Gurav, Rutikesh Gurav, Prakash N. Chavan, Nisha Nerlekar, Padma Dandge, Sandeep Sankpal, Shankar Hangirgekar, Design and synthesis of novel hydrazinyl thiazoles from biomass derived furfurals: Their molecular docking, anti-cancer, anti-oxidant, and anti-bacterial study, Journal of Molecular Structure, (2025), 1323, 1-13.
- 7) Shivaji Sawant, Pradeep Patil, Govind Salunke, Rupali Kamble, Mayur Bharmal, Sandeep Sankpal, Kailas Sonawane, Shankar Hangirgekar, An efficient, catalyst-free synthesis of novel indenoquinoxaline fused hydrazinylthiazoles and their antimicrobial evaluation with molecular docking study, Journal of Molecular Structure, (2025), 1321, 1-14.
  - 8) Lalit Dhananjay Bhosale, Akshay Pandurang Gurav, Pradeep Jangonda Patil, Dilip Hanumant Dagade, Sandeep Ashok Sankpal, Shankar Poshatti Hangirgekar, Sustainable synthesis of 2,3-Dihydroquinazolin-4(1H)-ones using Ni-Fe2O3@SiO2-Pr-DMAP novel nanocatalyst: a profiling approach by DFT, Research on Chemical Intermediates (2025), 51, 1827-1861.
  - 9) Rutuja R. Zond, Arati S. Kulkarni, Suvarna R. Umape, Padma B. Dandge, Reshma P. Yadav Nitin M. Naik, Vishal H. Thorat, Prafulla B. Choudhari, Shankar P. Hangirgekar, Sandeep A.Sankpal, Fe3O4@SiO2-Pr-THAM-(OSO3H)3: a novel magnetically separable catalyst for the synthesis of 4H chromenes and their antioxidant and antibacterial study, Research on Chemical Intermediates, (2025), 1233-1256.
  - 10)Govind Salunke, Pradeep Patil, Nippu B. N., N. D. Satyanarayan, Reshma Yadav, Umesh Sankpal, Shankar Hangirgekar, Sandeep Sankpal, Synthesis, Anticancer, and Molecular Docking Studies of Quinolone-Thiosemicarbazones Using Fe304@gly-S03H as a Magnetically Separable Nanocatalyst, Chemistry Select, 10, 1-15.
  - 11)Rutuja Zond, Reshma Yadav, Nagesh Birajdar, Savaliram Ghane, Pravin Dongare, N.D. Satyanarayan, Umesh Sankpal, Shankar Hangirgekar, Sandeep Sankpal, Fe3O4@SiO2@CPTMS-PADETA nanocomposite-catalyzed one-pot three-component synthesis of spiroindoloquinazolines: a combined biological and computational profiling, Journal of Molecular Structure, (2025), 23-2025.
  - 12)Lalit Bhosale , Rutikesh Gurav , Akshay Gurav , Sandeep Sankpal , Shankar Hangirgekar,Ni-Fe2O3@SiO2-Pr-DBU: A novel efficient magnetically retrievable catalyst for one-pot synthesis of dihydropyrano [3,2-c] chromene, Journal of Organometallic Chemistry,(2024) 1021, 1-10.
  - 13)Neelam Deshmukh, Jayavant Deshmukh, Nikhil Deshmukh, Sandeep Sankpal, Shankar Hangirgekar, [ZeoDABCO-SO3H]Cl catalyzed synthesis, cytotoxicity against normal kidney cell line and molecular docking study of dihydropyrimidines-2-ones/thiones, Journal of Molecular Structure, (2024) 1301, 1-13.
  - 14) Rutuja Zond, Archana Yadav, Reshma Yadav, Navanath Valekar, Santosh Pore,

- Dattatraya Chandam, Shankar Hangirgekar, Sandeep Sankpal Fe3O4@Thiosemicarbazide-Cu(II): An efficient magnetically separable catalyst for greener synthesis of 1,2,3-triazoles using click reaction, Journal of Organometallic Chemistry, (2024) 1004, 1-12
- 15)Akshay Pandurang Gurav, Rutikesh Pandit Gurav, Rutuja Ramesh Zond,Nayak Devappa Satyanarayan, Nippu Ningegowda Belur,Shankar Poshatti Hangirgekar, (2023),Design and synthesis of γ-Fe<sub>2</sub>O<sub>3</sub>@Ag-S-CH<sub>2</sub>-COOH nanocatalyst for one-pot synthesis of 2,3-dihydroquinazolin-4(1*H*)-ones and their anti-skin cancer activity, *Applied Organometallic Chemistry*. Accepted: 17 March 2023.
- 16)Archana Yadav, Pradeep Patil, Nagesh Birajdar, Anna Gophane, Krishna Gunturu, Shankar Hangirgekar, Sandeep Sankpal "An expeditious synthesis and histotoxicological study of 1,2,3-triazoles catalyzed by a novel Fe304@Si02-Prthiosemicarbazide-Cu(II) as a magnetically separable catalyst". Accepted 18 May 2023.
- 17)Prasad Swami, Sanket Rathod, Prafulla Choudhari, Devashree Patil, Ajinkya Patravale, Yogesh Nalwar, Sandeep Sankpal, Shankar Hangirgekar,Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub>@TDI@DES: A novel magnetically separable catalyst for the synthesis of oxindole, (2023) *Applied Organometallic Chemistry*,1332, 45.
- 18) Neelam Deshmukh, Jayavant Deshmukh, Sneha Paymal, Kailash Sonawane, Shivraj Wanale, Sandeep Sankpal, Shankar Hangirgekar, Zeolite@-Ag-CH<sub>2</sub>-COOH catalyzed synthesis of Bis-cyclohexenones and their antibacterial evaluation and Molecular docking study, (2023) *Journal of Organomettalic Chemistry* (Accepted).
- 19) Pradeep Patil , Nippu B. N. N. D. Satyanarayan , Santosh Pore , Rutuja Zond , Akshay Gurav , Shankar Hangirgekar, Sandeep Sankpal (2023) Design, synthesis, docking studies and anticancer evaluation of spiro[indoline-3,4-pyrano[2,3-c]pyrazole] derivatives on MIN-6 cancer cell line, *Journal of Molecular Structure*, 1277 (2023) 134772.
- 20)Pradeep Patil, Archana Yadav, Dattatray Chandam, Rutikesh Gurav, Shankar Hangirgekar, Sandeep Sankpal (2022), [MerDABCO-BSA][HSO4]2: A novel polymer supported Brønsted acidic ionic liquid catalyst for the synthesis of biscoumarins and ortho-aminocarbonitriles, *Journal of Molecular Structure* 1259 (2022) 132622.
- 21)Rutikesh Gurav, Akshay Gurav, Sunita-Salunkhe-Gawali, Sushilkumar Jadhav, Prafulla Choudhari, Sandeep Sankpal, and Shankar Hangirgekar,(2021) Ficus Benghalensis Leaf Extract in Biosynthesis of Fe<sub>3</sub>O<sub>4</sub> for Fe<sub>3</sub>O<sub>4</sub>@Ag-S-CH<sub>2</sub>-COOH: A Novel Catalyst for Synthesis of new 3,4-dihydropyrimidin-2(1*H*)-ones and their Anticancer Evaluation, *Applied Organometallic Chemistry* (1-20).
- 22)Santosh K. Surve, Rutikesh Gurav, Akshay Gurav, Pradeep Lasonkar, Jeevan Kondre, Veerabhadra Kalalawe, Sunita S. Gawali and Shankar Hangirgekar, (2022) Scrutiny of Novel Tosylacrylimidamide as Non-Classical Bioisosteres of Sulfonylurea in Type II Diabetes Mellitus through Synthesis, In Vitro and Docking Studies, *Chemistry Select* 2022, 7, e202104232 (1 of 8).
- 23) Rutikesh Pandit Gurav, Rohit Dattatray Nalawade, Shivaji Dnyandeo Sawant, Nayak Devappa Satyanarayan, Sandeep Ashok Sankpal, Shankar Poshatti Hangirgeka, (2022) Biosynthesis of ZrO2 for ZrO2@Ag-S-CH2COOH as the retrievable catalyst for the one-

- pot green synthesis of pyrazoline derivatives and their anticancer evaluation, *Applied Organometallic Chemistry*. (1-16).
- 24)Archana Yadav, Pradeep Patil, Dattatray Chandam, Sushilkumar Jadhav, Anil Ghule, Shankar Hangirgekar, Sandeep Sankpal,(2021) Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub>-SO<sub>3</sub>H-DABCO: A novel magnetically retrievable bifunctional catalyst for ecofriendly synthesis of diheteroarylmethanes, *Journal of Molecular Structure*, Vol.1245, 130960.
- 25)Ramchandra Awalekar, Priyanka Mohire, Ajinkya Patravale, Shilpa Salunkhe, Shams Usmani, Dattatray Jamale, Shankar Hangirgekar, Govind Kolekar & Prashant Anbhule, (2021) Total Stereospecific Synthesis of (3*E*,7*Z*)-Tetradecadienyl Acetate, the Major Sex Pheromone Component of the Potato Pest *Symmetrischematangolias, Chemistry of Natural compounds*. (Published on 15 November, 2021)
- 26)PradeepPatil, ArchanaYadav, LaxmanBavkar, Nippu B.N., N.D. Satyanarayan, Ananda Mane, Akshay Gurav, Shankar Hangirgekar, Sandeep Sankpal, (2021) [MerDABCO-SO<sub>3</sub> H]Cl catalyzed synthesis, antimicrobial and antioxidant evaluation and molecular docking study of pyrazolopyranopyrimidines, *Journal of Molecular Structure*, Vol.1242, 130672.
- 27)Ramchandra Awalekar, Kishor Jagadhane, Shams Usmani, Shilpa Salunkhe, Dattatray Jamale, Shankar Hangirgekar, Govind Kolekar and Prashant Anbhule, (2021) Stereospecific Synthesis of (4E,10Z)- 4,10-Tetradecadienyl Acetate, the Major Sex Pheromone of Apple Leaf Miner Moth, Phyllonorycterringoniella, *Letters in Organic Chemistry*, Vol. 18,1-7.
- 28) Rutikesh Gurav, Santosh Kumar Surve, Santosh Babar, Prafulla Choudhari, Devashree Patil, Vikramsinh More, Sandeep Sankpal and Shankar Hangirgekar, (2020), Rust-derived Fe2O3 nanoparticles as a greencatalyst for the one-pot synthesis of hydrazinylthiazole derivatives, *Org. Biomol. Chem.*, Vol. 18, 4575–4582.
- 29)Shivanand Gajare, Audumbar Patil, Shankar Hangirgekar, Sushilkumar Dhanmane, Gajanan Rashinkar,(2020), Green synthesis of quinolines via A<sup>3</sup>-coupling by using graphene oxide-supported Brønsted acidic ionic liquid, *Research on Chemical Intermediate*,2417-2436.
- 30)Ramchandra Awalekar, Priyanka Mohire, Navanath Valekar, Shams Usmani, Shilpa Salunkhe, Dattatray Jamale, Shankar Hangirgekar, Govind Kolekar, Prashant Anbhule, (2020), A total and convergent synthesis of (7Z,11Z,13E)-7,11,13-Hexadecatrienal, the major sex pheromone component of the citrus leafminer, Phyllocnistiscitrella, *Chemical Data Collections.*, Vol.30,2020.
- 31)Ramchandra Awalekar, Priyanka Mohire, Ajinkya Patravale, Shilpa Salunkhe, Dattatray Jamale, Shankar Hangirgekar, Govind Kolekar and Prashant Anbhule, (2020), Stereoselective Synthesis of (4E,6Z)-Hexadecadien-1-ol, (4E,6Z)-Hexadecadienyl Acetate and (4E,6Z)-Hexadecadienal, the Pheromone Components of the Persimmon Fruit Moth, Stathmopoda masinissa, *Chem Sci Rev Lett* 2020, 9 (35), 746-772.
- 32)Pradeep J. Patil, Govind D. Salunke, Madhukar B. Deshmukh Shankar P. Hangirgekar, Dattatray R. Chandam and Sandeep A. Sankpal, (2019), Thiamine Hydrochloride Catalyzed Synthesis of 1,2,4-Triazolidine-3-thiones in Aqueous Medium, *Chemistry Select*, Vol.4, 1–9.
- 33)Dattatraya K. Jamale, Vashishtha M. Gurame, Navanath J. Valekar, Shankar P. Hangirgekar, Govind B. Kolekar, and Prashant V. Anbhule, (2019), An Efficient Protocol

- for the Synthesis of Pyrido[2,3-d]pyrimidines in Glycerol–Water Medium: Assessment by Green Chemistry Metrics, *Macromol. Symp.* 2019, *387*, 1800202
- 34)Shankar Hangirgekar, Shankar,(2019) Convenient Synthesis of substituted 2-phenyl quinixaline from α-tosyl ketones and aryl 1,2-diamines catalyzed by L-proline, *Rasayan J. Chem.*, 12(1), 329-332(2019)
- 35)Shankar Hangirgekar, Shankar Phulwale, (2018), Synthesis, Characterization and biological evaluation of some new Acridine derivatives, *Heterocyclic Letters*, Vol. 8| No.1|95-104.
- 36)Isak R. S., Javeed A W., Ahmad L. S., Rafique A. S., Hangirgekar S. P., Alamgir A. S. and Parveen R. S., (2015), H-ZSM-5 Zeolite Synthesis by Sourcing Silica from the Wheat Husk Ash: Characterization and Application as A Versatile Heterogeneous Catalyst in Organic Transformations including Some Multi-Component Reactions, *Journal of catalysts*, 2015, 1-14.
- 37) Hangirgekar S.P., Phulwale S., (2018), Synthesis, characterization and biological evaluation of some new acridine derivatives, Heterocyclic Letters, Vol. 8, 2231–3087.
- 38)Shankar P. Hangirgekar\*, Vijay V.Kumbhar, Ahmad L. Shaikh,Ikhe A.Bhairuba,(2014), One-Pot Synthesis of 2,4,5- Trisubstituted Imidazoles Using Cupric Chloride as a catalyst Under Solvent free conditions, *Der Pharma Chemica*,6(6):164-168.
- 39)Hangirgekar, S. P., (2014), Bromodecarboxylation of substituted Cinnamic acids to β-bromostyrenes using DIB/LIBR: *Indo American Journal of Pharmaceutical Research*,4(6), 2761-2765.
- 40) Hangirgekar, S. P., Kumbhar, V. V., & Wadwale N. B., (2013), Aqueous phase synthesis of substituted imidazo[1,2-a] pyridine in the presence of β-cyclodextrin, *Der Pharma Chemica*, 5(5), 274-279.
- 41) Hangirgekar, S. P., Kumbhar, V. V., & Wadwale N. B., (2013). One pot synthesis of 1,8-dioxo-octahydroxanthenes in aquase phase using  $\beta$ -cyclodextrin as an efficient and green catalyst, *Indo American Journal of Pharmaceutical Research*, 4(1), 427-431.
- 42)Deosarkar S. D. and Hangirgekar S.P.,(2012) Cu(II) Adsorption from Aqueous Solution by Punica granatum L. Husk, *Journal of Chemical and Pharmaceutical Research*, 4(10):4651-4656.
- 43) Hangirgekar, S. P., (2012), Synthesis and Characterization of some biologically active 2, 5-Substituted Oxadiazoles, *Journal of Chemical and Pharmaceutical Research*, 4(5), 2458-2462.
- 44) Hangirgekar, S. P., (2012), Montmorillonite K-10 Catalysed Synthesis of 1-Aryl-3Alkyl Substituted Indazoles, *Journal of Chemical, Biological and Physical Sciences*, 2(4), 1676-1680.
- 45) Hangirgekar, S. P., (2012), Phenyl-Trimethyl-Ammonium Tribromide: Facile Catalyst for the One Pot Synthesis of Substituted Benzoxazoles, *RIPBCS*, 3(4), 83.
- 46)Hangirgekar, S. P., (2012), A facile β-cyclodextrin-catalyzed synthesis of substituted benzofuran from salicyaldehyde and alpha tosyl ketone, *Journal of Chemical and Pharmaceutical Research*, 4(10), 4642-4645.
- 47) Hangirgekar, S. P., & Shirodkar, S. G., (2010), Selective and efficient oxidation of benzaldehydes to their corresponding methyl esters using PTAB/DIB in presence of methanol, *Int. J. Chem. Sci.*, 8(4), 2557-2562.

- 48) Hangirgekar, S. P., & Shirodkar, S. G., (2011), One Pot Synthesis of Substituted Benzothiazoles from substituted aldehydes and 2-aminothiols using Phenyltrimethylammonium tribromide, *Indo American Journal of Pharmaceutical Research*, 1(1), 153-157.
- 49) Hangirgekar, S. P., & Shirodkar, S. G., (2011), A Regioselective and Stereoselective Methoxy Bromination of Olefins using Diacetoxyiodobenzene and Phenyltrimethyl Ammoniumtribromide, *Oriental Journal of Chemistry*, 27 (1), 179-184.
- 50) Hangirgekar, S. P., & Shirodkar, S. G., (2011), One-pot synthesis of  $\omega$ -bromoesters from aromatic aldehydes and diols using phenyltrimethylammonium tribromide, *Journal of Chemical and Pharmaceutical Research*, 3(4), 676-679.
- 51)Idhole, S. S., Dhotre, V. B., Gosvami, S. V., Hangirgekar, S. P. & Bhusare, S. R., (2010), L-proline: an efficient catalyst for the synthesis of cuoumarins via Pechmann reaction, *Int. J. Chem. Sci.*8 (1), 553-558.
- 52) Hangirgekar, S. P., & Shirodkar, S. G., (2010), Side chain bromination of 3,4-dihydropyrimidines using Phenyltrimethylammonium tribromide, *Rasayan J. Chem.*,3(3),490-492.
- 53) Shankar P. Hangirgekar, Vijay V.Kumbhar, Ahmad, L. Shaikh, Ikhe A.Bhairuba, One-Pot Synthesis of 2,4,5- Trisubstituted Imidazoles Using Cupric Chloride as a catalyst Under Solvent free conditions, Der Pharma Chemica, (2014), 6(6), 164-168.
- 54)Hangirgekar S. P., Bromodecarboxylation of substituted Cinnamic acids to  $\beta$ -bromostyrenes using DIB/LIBR, (2014), Indo American Journal of Pharmaceutical Research, 4(6), 2761-2765.
- 55)Hangirgekar, S. P., Kumbhar, V. V., & Wadwale N. B., (2013) Aqueous phase synthesis of substituted imidazo[1,2-a]pyridine in the presence of  $\beta$ -cyclodextrin, Der Pharma Chemica, 5(5), 274-279.
- 56)Hangirgekar, S. P., Kumbhar, V. V., & Wadwale N. B., One pot synthesis of 1,8-dioxo-octahydroxanthenes in aquase phase using  $\beta$ -cyclodextrin as an efficient and green catalyst. (2013), Indo American Journal of Pharmaceutical Research, 4(1), 427-431.
- 57) Idhole, S. S., Dhotre, V. B., Gosvami, S. V., Hangirgekar, S. P. & Bhusare, S. R., L-proline:an efficient catalyst for the synthesis of cuoumarins via Pechmann reaction, Int. J. Chem. Sci. (2010) 8 (1),553-558.
- 58) Hangirgekar, S. P., & Shirodkar, S. G., Selective and efficient oxidation of benzaldehydes to their corresponding methyl esters using PTAB/DIB in the presence of methanol (2010), *Int. J. Chem. Sci.*, 8(4), 2557-2562.