

## CURRICULUM VITAE

Dr. Sandip Ravindra Kale  
E-mail: [sandipict@gmail.com](mailto:sandipict@gmail.com)  
Phone: 09768058688



### Objective:

To achieve excellence in "Chemical Science"

### Educational Qualification:

- **Ph.D. (Chemistry) : May 2013.**  
Topic of research : Multicomponent reactions catalyzed by Hydrotalcites and Hydroxyapatites Catalysts.  
Institute : Institute of Chemical Technology, Matunga, Mumbai.  
Research Supervisor : Prof. R.V. Jayaram.  
Research **Publications: 18** Research **Presentations: 07**
  
- **NET CSIR (JRF) : 21 June 2009**
- **NET UGC (JRF) : 20 December 2009**
- **NET UGC (LS) : 22 June 2014**
- **GATE : 10 Feb 2008**
- **SET : 13 September 2009**
  
- **M.Sc**  
(Organic Chemistry): Jun 2008  
Institute : Sangamner College, Sangamner, Maharashtra.  
University : University of Pune  
Class : First Class with distinction (**75.55 %**)
  
- **B.Sc (Chemistry) : Jun 2006**  
Institute : Sangamner College, Sangamner, Maharashtra.  
University : University of Pune  
Class : First Class with distinction (**79.50 %**)

### Teaching Experience:

- Total Teaching experience: 5 years.

### Technical/ Analytical Knowledge:

- Interpretation of IR, NMR, Mass Spectras.
- Handling of analytical Instruments such as, Gas Chromatography, Soxhlet apparatus, GCMS, IR, UV spectrometer, MP apparatus etc.
- Method development on GC and Column Chromatography.

### Computer Proficiency:

- MS-Office
- Application Packages : Chem draw, ISIS draw
- Sci-finder, Scopus, Science direct, Reaxy for literature survey

### Workshop Attended:

- Attended workshop on **"Development of green process"** organized by **Indian Institute of Technology Bombay (IITB)** in Dec. 2009.
- Attended workshop on **"Catalyst Characterization & Catalysis"** organized by Department of Chemical Engineering, U.I.C.T, Mumbai in Feb. 2010.
- Attended workshop on **"Green Chemistry"** organized by Nicholas Piramal Research Center, Mumbai, Aug 2009.
- Attended workshop on **"Green chemistry & Catalysis"** organized by Department of Chemistry, I.C.T, Mumbai in March. 2010.
- Attended workshop on **"Recent trend in Catalysis"** organized by Department of Chemistry, I.C.T, Mumbai in Feb. 2011.

### Conferences:

- **"20th National symposium on catalysis"** held on 19-22 Dec. 2010 at **IIT Madras**.
- **"National Technology Day and International Year of Chemistry Celebrations"** held at **ICT, Mumbai**, May 2011.
- **'Hazard free green synthesis of triazoles in aqueous medium'** presented in **"International conference on global challenges- the role of Chemistry"** held at **Bangkok, Thailand**, 11<sup>th</sup> -15<sup>th</sup> June 2011.
- **'Chemistry of Smart packaging of food materials'** presented in **"International conference on global challenges- the role of Chemistry"** held at **Bangkok**, 11<sup>th</sup> -15<sup>th</sup> June 2011.
- **"International conference on Heterocyclic Chemistry"**, University of Rajasthan, **Jaipur**, 10-13<sup>th</sup> Dec. 2011.
- **"2<sup>nd</sup> International Indo-German Symposium on Green Chemistry and Catalysis for Sustainable Development"**, **ICT, Mumbai**, 29-31<sup>st</sup> Oct. 2012.
- **"National Indo-Japan conference on Catalysis: A Green Chemistry Approach"**, Department of Chemistry, **ICT, Mumbai**, 13<sup>th</sup> Feb. 2013.

## Research Publications:

- **Synthesis of 1,8-Dioxo-octahydroxanthenes and 1,8-Dioxo-decahydroacridines Using an Efficient Cellulose-HClO<sub>4</sub> Heterogeneous Catalyst Under Solvent-free Conditions: A Green Protocol**  
Bharatkumar M. Sapkal, Amber J. Sahani, Anand S. Burange\*, Sandip R Kale, George Abraham, Shamrao Disale\*.  
*Current Catalysis*, 2018, 7, 2, 144-148.
- **A efficient route to 1,8 dioxo-octahydroxanthenes and 1,8 dioxo-decahydroacridines using sulphated zirconia catalyst.**  
Sandeep S. Kahandal, Anand S. Burange, Sandip R. Kale, Rafael Luque and Radha V. Jayaram\*  
*Catalysis Communications*, 2017, 97, 138-145
- **A Sustainable and Efficient Synthesis of Benzyl Phosphonates Using PEG/KI Catalytic System**  
Shamrao T. Disale, Sandip R. Kale, Sandeep S. Kahandal, George Abraham and Manoj B. Gawande\*  
*Frontiers in Chemistry*, 2016, 4, 1-6.
- **A novel copper based metal-organic framework catalyzed O-acetylation of alcohols.**  
Savita J. Singh, Sandip R. Kale, M. B. Gawande and Radha Jayaram\*  
*Catalysis Communications*, 2014, 44, 24-28
- **Greener iodination of arenes using sulphated ceria-zirconia catalysts in polyethylene glycol"**  
Sandeep S. Kahandal, Sandip R. Kale, M. B. Gawande and Radha Jayaram\*  
*RSC Advances*, 2014, 4, 6267-6274.
- **Magnetically retrievable MFe<sub>2</sub>O<sub>4</sub> spinel (M-Mn, Co, Cu, Ni, Zn) catalysts for oxidation of benzylic alcohols to carbonyls**  
Anand S. Burange, Sandip R. Kale, and Radha V. Jayaram\*  
*RSC Advances*, 2014, 4, 6597-6601.
- **A mild route for one pot synthesis of 5,6-unsubstituted 1,4-dihydropyridines catalyzed by sulphated mixed metal oxides**  
Sandeep S. Kahandal, Sandip R. Kale, M. B. Gawande and Radha Jayaram\*  
*Catalysis Science and Technology*, 2014, 4, 3, 672-680
- **A Benign synthesis of 2-amino-4H-chromene in aqueous medium using hydrotalcite (HT) as a heterogeneous base catalyst**  
Sandip R. Kale, Anand S. Burange, Manoj B. Gawande and Radha V. Jayaram\*  
*Catalysis Science and Technology*, 2013, 3, 2050-2056.
- **Magnetically recyclable  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>/HAP nanoparticles for cycloaddition**

**reaction of alkyne, halide and azide in aqueous medium**

**Sandip R. Kale**, Sandeep S. Kahandal, Manoj B. Gawande and Radha V. Jayaram\*  
*RSC Advances*, 2013, 3, 8184-8192.

- **Sequential synthesis of  $\beta$ -amino alcohols using  $\text{CeO}_2\text{-ZrO}_2$  bifunctional catalyst**  
Kalpesh D. Parghi, **Sandip R. Kale**, Manoj B. Gawande and Radha V. Jayaram\*  
*Catalysis Science and Technology*, 2013, 3, 1308-1313.
- **$\text{ALaNb}_2\text{O}_7$  (A=Cs, Rb, K) catalyzed regioselective ring opening of epoxides with aliphatic, aromatic and heteroaromatic amines**  
Savita J. Singh, **Sandip R. Kale** and Radha V. Jayaram\*  
*Current Catalysis*, 2013, 7, 130-136.
- **Choline chloride $\cdot$ 2ZnCl $_2$  ionic liquid: An efficient and reusable catalyst for the solvent-free Kabachnik-Fields reaction.**  
Shamrao T. Disale, **Sandip R. Kale**, Sandeep S. Kahandal, Thandankorai G. Srinivasan and Radha V. Jayaram\*  
*Tetrahedron Letter*, 2012, 53, 18, 2277-2279.
- **Oxidation of alkyl aromatics to ketones by TBHP on  $\text{MnO}_2$  catalyst.**  
Anand S. Burange, **Sandip R. Kale**, and Radha V. Jayaram\*  
*Tetrahedron Letter*, 2012, 53, 24, 2989-2992.
- **Conventional and microwave-assisted multicomponent reaction of alkyne, halide and sodium azide catalyzed by copper apatite as a heterogeneous base catalyst in water.**  
**Sandip R. Kale**, Sandeep S. Kahandal, Shamrao T. Disale and Radha V. Jayaram\*  
*Current Chemistry Letter*, 2012, 1, 47-58.
- **Sulphated Ytria-Zirconia as a regioselective catalyst system for the alcoholysis of epoxides.**  
Sandeep S. Kahandal, **Sandip R. Kale**, Shamrao T. Disale and Radha V. Jayaram\*  
*Catalysis Science and Technology*, 2012, 2, 1493-1499.
- **$\text{SO}_4^{2-}/\text{Ce}_x\text{Zr}_{1-x}\text{O}_2$  catalysed synthesis of N-tert-butyl amides from tert-butyl acetate under solvent-free conditions.**  
Sandeep S. Kahandal, **Sandip R. Kale**, Shamrao T. Disale and Radha V. Jayaram\*  
*Chemistry Letter*, 2012, 47, 7, 738-740.
- **Preparation of N-tert-butyl amides from nitriles with  $\text{SO}_4^{2-}/\text{Ce}_{0.07}\text{Zr}_{0.093}\text{O}_2$ .**  
Sandeep S. Kahandal, **Sandip R. Kale** and Radha V. Jayaram\*  
*Synfacts*, 2012, 8, 10, 1161

- **Ecofriendly and facile Nano ZnO catalyzed solvent-free enamination of 1,3-dicarbonyls.**  
Utkarsha U. Indulkar, **Sandip R. Kale**, Manoj B. Gawande and Radha V. Jayaram\*  
*Tetrahedron Letter*, 2012, 53, 3857-3861.
- **One pot multicomponent synthesis of highly substituted pyridines using Hydrotalcite as a solid base and reusable catalyst.**  
**Sandip R. Kale**, Sandeep S. Kahandal, Anand S. Burange and Radha V. Jayaram\*  
*Current catalysis, Manuscript under review*

#### Awards and achievements:

- Awarded **Senior Research Fellowship** by **CSIR** from 1<sup>st</sup> Jan. 2012 onwards.
- **Runner up** in inter college **chess** competition held at ICT, Mumbai, March 2012.
- "Shri **G.M Abhyankar Research Presentation Award**" at ICT, Mumbai, Oct 2011
- "Shri **G.M Abhyankar Research Presentation Award**" at ICT, Mumbai, Feb 2011
- **First prize** in inter college **chess** competition held at ICT, Mumbai, Feb 2011.
- **First prize** in **Young Innovator Choice Competition** held at ICT on Feb. 2010.
- "Shri **G.M Abhyankar Research Presentation Award**" at ICT, Mumbai, 2010.
- **Runner up** in inter college **chess** competition held at ICT, Mumbai, Feb 2010.
- Awarded **Junior Research Fellowship** by **CSIR** from 1<sup>st</sup> Jan. 2010 onwards.
- **15<sup>th</sup>** rank in Aptitude test in Chemistry-2009 conducted by Indian Chemical Society
- M.Sc. **class representative** for year 2006-2008.
- **First rank** in the class M.Sc. II., 2008
- **First rank** in the class M.Sc. I., 2007

#### PERSONAL DETAILS:

Name : Dr. Sandip Ravindra Kale  
 Date of Birth : 27<sup>th</sup> Jan 1986  
 Marital Status : Married  
 Birth Place : Bhandardara, Akole, Ahmednagar  
 Nationality : Indian  
 Languages : English, Hindi, Marathi

#### Declaration

I hereby declare that the all above given information by me is true & correct to the best of my knowledge.

(Dr. Sandip R. Kale)