

# CURRICULUM VITAE

**Name** Dr. Sandip Pandurang Patil

**Designation** Assistant Professor,  
G.T. Patil Arts, Commerce and Science College,  
Nandurbar-425412

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**Date of Birth** 18th June 1987 (Age 35 Yrs)

**Blood Group** "O" +ve

## Educational Qualification

Degree	Field of Specialization	University	Year of Passing	%age of Marks	Class Obtained
B.Sc.	Chemistry	K.B.C.N. M.U. Jalgaon	June, 2007	76.17	First Class with Distinction
M.Sc.	Organic Chemistry	K.B.C.N. M.U. Jalgaon	June, 2009	76.90	First Class with Distinction
Ph.D.*	Chemistry	K.B.C.N. M.U. Jalgaon	Septembe r 2017	--	Awarded

**\*Title of the Ph.D. Thesis** Intensification of photocatalytic degradation of organic pollutants using nanocomposites and nano thin films.

**Guide** Dr. G. H. Sonawane, M.Sc. Ph.D.,  
Head and Vice-Principal,  
Kisan Arts, Commerce and Science College, Parola Dist.  
Jalgaon (M.S.)

**Date of Ph.D. Award** 14/09/2017

**Teaching Experience** UG-12 Years

PG-12 Years

Sr.No.	Designation	Institution	Period	Experience
1.	Assistant Professor	G.T. Patil Arts, Commerce and Science College, Nandurbar	Since 06/07/2011	12 Years

**Research Experience** 06 Years

**Research Papers** 16

**Research Papers presented in Conferences** 04

**Book Chapters** 02

**P.G. Teacher recognition** 2017 By KBC, NMU, Jalgaon.

**Ph.D. Guide** 2022 By KBC, NMU, Jalgaon

#### **Memberships**

- Life Member, Asian Journal of Chemical and Environmental Research.
- Life Member, Association of Chemistry Teachers, KBCNMU, Jalgaon.

#### **Research Thrust Areas:**

Nanomaterial synthesis and its applications in degradation of organics, Kinetics of photocatalytic degradation, Molecular docking and simulation.

#### **Number of research scholars supervised**

- i. Ph. D. Ongoing : 02

#### **List of publications**

1. A. F. Patil, V. S. Patil, D. P. Jaiswal, S. S. Palakhe, **Sandip P. Patil**, B. V. Kumbhar, Investigating the novel acetonitrile derivatives as potential SARS-CoV-2 main protease inhibitor using molecular modeling approach, *Journal of Biomolecular Structure and Dynamics*, (**Taylor & Francis**), (2022) DOI: 10.1080/07391102.2022.2059568.(**I.F. 5.235**)
2. S. G. Shelar, V. K. Mahajan, **Sandip P. Patil**, Gunvant H. Sonawane, Visible Light Induced Photocatalytic Degradation of Victoria Blue by using ZnS and Co Doped ZnS Nano Catalyst, *Journal of Scientific Research (BHU)* 65 (2021) 6-12.
3. S. G. Shelar, V. K. Mahajan, **Sandip P. Patil**, Gunvant H. Sonawane, Effect of doping parameters on photocatalytic degradation of Methylene Blue using Ag doped ZnO nanocatalyst, *SN Applied Sciences (Springer Nature)* 2 (2020) 820.
4. S. G. Shelar, V. K. Mahajan, **Sandip P. Patil**, Gunvant H. Sonawane, Photocatalytic degradation of Methyl Orange using nano Fe<sub>2</sub>O<sub>3</sub> and Co doped Fe<sub>2</sub>O<sub>3</sub> of different compositions, *Vidyabharati International Interdisciplinary Research Journal, Special issue NCRACS (2020)* 66-73.
5. S. G. Shelar, V. K. Mahajan, **Sandip P. Patil**, Gunvant H. Sonawane, Enhancement of visible light induced photocatalytic degradation of Eosin-Y by using TiO<sub>2</sub> nano catalyst, *J Mater. Environ. Sci.* 10 (2019) 431-441.
6. P. K. Labhane, S.H. Sonawane, Gunvant H. Sonawane, **Sandip P. Patil**, V. R. Huse, Influence of Mg doping on ZnO nanoparticles decorated on graphene oxide (GO) crumpled paper like sheet and its high photo catalytic performance under sunlight, *Journal of Physics and Chemistry of Solids, (Elsevier)* 114 (2018) 71-82.(**I.F. 4.383**)
7. Gunvant H. Sonawane, **Sandip P. Patil**, V. S. Shrivastava, Photocatalytic degradation of Safranin by ZnO-bentonite: photodegradation versus adsorbability, *J. Institution of Engg. (India): Series E (Springer)*, 98 (1) (2017) 55-63.
8. **Sandip P. Patil**, Vilas K. Mahajan, V. S. Shrivastava, Gunvant H. Sonawane, Kinetics of photocatalytic degradation of Methylene Blue by ZnO-Bentonite nanocomposite, *Iranian Chemical Communication*, 5 (2017) 417-428.
9. **Sandip P. Patil**, B. Bheti, Gunvant H. Sonawane, V. S. Shrivastava, S. H. Sonawane, Efficient adsorption and photocatalytic degradation of Rhodamine B dye over Bi<sub>2</sub>O<sub>3</sub>-bentonite nanocomposites: a kinetic study, *J. Ind. Eng. Chem. (Elsevier)*, 34 (2016) 356-363. (**I.F. 6.76**)
10. **Sandip P. Patil**, R. P. Patil, V. K. Mahajan, Gunvant H. Sonawane, V. S. Shrivastava, S. H. Sonawane, Facile sonochemical synthesis of BiOBr-graphene oxide

nanocomposite with enhanced photocatalytic activity for the degradation of Direct green, Mater. Sci. Semicond. Process. (**Elsevier**), 52 (2016) 55-61.(**I.F.4.644**)

11. V. K. Mahajan, **Sandip P. Patil**, S.H. Sonawane, Gunvant H. Sonawane, Ultrasonic, photocatalytic and sonophotocatalytic degradation of Basic Red-2 by using Nb<sub>2</sub>O<sub>5</sub> nano catalyst, AIMS Biophysics, 3 (3) (2016) 415-430.
12. **Sandip P. Patil**, Gunvant H. Sonawane, V. S. Shrivastava, Effective photocatalytic removal of Eosin Y dye using Bi<sub>2</sub>O<sub>3</sub>-bentonite nanocomposite, Asian J. Chem. Environ. Research, 9 (1-4) (2016) 23-27.
13. **Sandip P. Patil**, V. S. Shrivastava, Gunvant H. Sonawane, S. H. Sonawane, Synthesis of novel Bi<sub>2</sub>O<sub>3</sub>-Montmorillonite nanocomposite with enhanced photocatalytic performance in dye degradation, J Environ. Chem. Eng. (**Elsevier**), 3 (2015) 2597-2603.(**I.F. 7.968**)
14. **Sandip P. Patil**, V. S. Shrivastava, Gunvant H. Sonawane, Photocatalytic degradation of Rhodamine 6G using ZnO-montmorillonite nanocomposite: a kinetic approach, Desalin. Water Treat. (**Taylor & Francis**), 54 (2015) 374-381. (**I.F. 1.631**)
15. **Sandip P. Patil**, V. S. Shrivastava, Gunvant H. Sonawane, Synthesis of nano ZnS thin film by chemical bath deposition method and its application for the removal of Victoria blue dye, Der Chemica Sinica (Pelagia Research Library), 6 (8) (2015) 25-29.
16. **Sandip P. Patil**, Gunvant H. Sonawane, V. S. Shrivastava, Detection of organics from industrial effluents of Surat region (Gujarat), Asian J. Chem. Environ. Research, 6 (1-2) (2013) 40-45.

### **Book Chapter**

1. Gunvant H. Sonawane, **Sandip P. Patil**, S.H. Sonawane, Nanoconposites and Its Applications, in the Book entitled "Application of Nanomaterials: Advances and Key Technologies" <https://doi.org/10.1016/B978-0-08-101971-9.00001-6> (**Elsevier**) (**June 2018**) 1-22.
2. T.Y.B.Sc. Textbook of CH-506 Green Chemistry by Prashant Publications.

### **Papers presented in Conferences**

1. **Sandip P. Patil**, Vilas Mahajan, S.G. Shelar, Gunvant Sonawane, Enhancement of degradation of Ponceau S using ultrasonic, sonocatalytic, photocatalytic, and sonophotocatalytic degradation in presence of Fe-doped and undoped ZnO nano

Catalyst. ZnS nanocatalyst, National conference on Chemical Science for Sustainable Development at S.P.D.M. College, Shirpur (17<sup>th</sup> March **2023**).

2. **Sandip P. Patil**, Vilas Mahajan, S.G. Shelar, B.S. Bhadane, A.D. Mudavadkar, Gunvant Sonawane, Degradation of Eosin-Y by sonolytic and sonophotocatalytic oxidation in the presence of ZnO nanocatalyst, National conference at G. T. P. College, Nandurbar (29<sup>th</sup> June **2022**).
3. **Sandip P. Patil**, V.S. Shrivastava, Effective treatment of textile industry effluent by bentonite based Nanocomposites National conference at G. T. P. College, Nandurbar (12<sup>th</sup> Feb. **2019**).
4. **Sandip P. Patil**, Vilas Mahajan, Gunvant Sonawane, Photocatalytic, sonocatalytic and sonophotocatalytic degradation of Aniline Blue using ZnS nanocatalyst, National conference at G. T. P. College, Nandurbar (8-9<sup>th</sup> Feb. **2016**).
5. **Sandip P. Patil**, Gunvant Sonawane, V.S. Shrivastava, Photocatalytic degradation of Congo Red dye using Bi<sub>2</sub>O<sub>3</sub>-Montmorillonite nanocomposite (26-28<sup>th</sup> Dec. **2015**) at Uka Tarasadia University, Bardoli.