

Dr. B. M. Patil

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Dr. B. M. Patil is working as Assistant Professor, Department of Chemistry, The Institute of Science Mumbai. Dr. Patil has completed his B.Sc. course in Chemistry from The New College, Kolhapur in 1997 and M.Sc. course in Physical Chemistry from Department of Chemistry, Shivaji University Kolhapur in 1999.

He was qualified NET-CSIR examination in 2001. He did his Ph. D. in Material Science under the guidance of Dr. S. R. Dharwadkar (Ex. Head, Chemistry Division BARC, Mumbai) from the Department of Chemistry, The Institute of Science, Mumbai.

He was awarded best oral presentation prize for his research paper presented in the DAE - BRNS sponsored the “15th National Symposium on “Thermal Analysis (THERMANS – 2006)” held at University of Rajasthan, Jaipur, during 6 - 8th February 2006. He was also awarded Mrs. S. V. Sulbai best Ph. D. student award in 2009 from the Department of Chemistry, The Institute of Science, Mumbai.

He was also awarded the “Best Oral paper presentation award” in the International Conference on Advanced & Applied Material Science (ICAAMS-2014) scheduled on 15th & 16th January 2014 at Gopal Krishna Gokhale College, Kolhapur. Recently he was also awarded 2nd best oral presentation prize in the two days International conference on Interdisciplinary Approach in Chemical Research (IACR 2017) organized by S. M. Joshi College, Hadapsar, Pune, Maharashtra.

He has attended 12 national and 23 international conferences. He was presented 31 research papers in national and international conferences.

He is actively engaged in following research areas namely biosynthesis of silver and gold particles, room temperature synthesis of metal oxide nanoparticles and synthesis and

characterization of ceramic material which is used for the immobilization of high level nuclear waste.

Research Area / Research interest:

- i. Biosynthesis of metal nanoparticles: its characterization and application.
- ii. Room temperature synthesis of metal oxide nanoparticles and its characterization.
- iii. Synthesis and Characterization of mixed ligand complexes of transition metal and its anticancer activity.
- iv. Synthesis and characterization of ceramic material which is used for the immobilization of high level nuclear waste.

Faculty Development programmes:

- i. Participated in UGC sponsored refresher course on Nanoscience (ID) conducted from December 9, 2014 to December 30, 2014 at HRDC, University of Mumbai, Mumbai.
- ii. Participated in UGC sponsored refresher course on Information and Communication Technology (ID) conducted from 30 May 2016 to June 18, 2016 at HRDC, University of Mumbai, Mumbai.
- iii. Participated in UGC sponsored short Term course conducted from August 29, 2016 to September 3, 2016 at HRDC, University of Mumbai, Mumbai.
- iv. Participated in Refresher Training programme for Class-I officers of Higher and Technical Education Department conducted from December 7, 2015 to December 11, 2015 at Yashada, Pune.

Conferences Attended

1. Attended the “2st International Conference on “Physics of Materials and Materials based Device Fabrications” (ICPM-MDF – 2014)” organized by Department of Physics, Shivaji University, Kolhapur, during 13-16th January 2014.
2. Attended the “International Conference on Advanced & Applied Material Science (ICAAMS-2014) scheduled on 15th & 16th January 2014 at Gopal Krishna Gokhale College, Kolhapur.

3. Attended the “National symposium on “Current Trends in Chemical and Nano Sciences.” (CTCNS – 2014)” organized by Department of Chemistry,, Shivaji University, Kolhapur, during 17 and 18th January 2014.
4. Attended the “International conference on New Horizons in Synthetic and Materials Chemistry” (ICSMC-2015) organized by Department of Chemistry, University of Mumbai, Mumbai, during 26 and 28th November 2015.
5. Attended the “Workshop on NGO Administration” organized by Daily SAKAL and AGROWAN at Pune, during 7th and 8th January 2016.
6. Attended the “International Conference on “Materials Science and Ionizing Radiation Safety and Awareness” (ICMSIRSA-2016)” organized by Department of Physics, Shivaji University, Kolhapur, during 28th and 30 January 2016.
7. Attended the “International conference on Material Science and Technology” organized by University of Delhi, Delhi, during 1st and 4th March 2016.
8. Attended the “ 1st National Teachers Congress, India” held at Pune, India during 23rd to 25th September 2016
9. Attended the “National DAE_BRNS first Workshop on Thermal Analysis (THERMAWORK-2016) at Bhabha Atomic Research Centre, Mumbai during December 20-21, 2016.

Paper presented in conferences / symposiums:

1. The paper titled as “A novel technique for the synthesis of Co_3O_4 nanoparticles” presented in the “2nd International conference on physics of materials and materials based device fabrications” (ICPM- MDF -2014) during 13-15 January 2014.
2. The paper titled as “Synthesis and characterization of Nano crystalline CaZrO_3 powder via modified molecular precursor” presented in the International Conference on Advanced & Applied Material Science (ICAAMS-2014) scheduled on 15th & 16th January 2014 at Gopal Krishna Gokhale College, Kolhapur.
3. The paper titled as “Synthesis and characterization of nanocrystalline $\text{CaZrTi}_2\text{O}_7$ powder via modified molecular precursor” presented in the “National symposium on “Current Trends in Chemical and Nano Sciences.” (CTCNS – 2014)” organized by Department of Chemistry,, Shivaji University, Kolhapur, during 17 and 18th January 2014.

4. The paper titled as “Synthesis and characterization of nanocrystalline $\text{CaZrTi}_2\text{O}_7$ powder via modified Sol-Gel Method” presented in the International conference on New Horizons in Synthetic and Materials Chemistry” (ICSMC-2015) organized by Department of Chemistry, University of Mumbai, Mumbai, during 26 and 28th November 2015.
5. The paper titled as “Synthesis and Characterization of nanocrystalline $\text{BaAl}_2\text{Ti}_6\text{O}_{16}$ by modified Hydroxide Method” presented in the “International Conference on “Materials Science and Ionizing Radiation Safety and Awareness” (ICMSIRSA-2016)” organized by Department of Physics, Shivaji University, Kolhapur, during 28th and 30 January 2016
6. The paper titled as “Synthesis and Characterization of nanocrystalline $\text{BaAl}_2\text{Ti}_6\text{O}_{16}$ by modified Sol-Gel Method” presented in the “International conference on Material Science and Technology” organized by University of Delhi, Delhi, during 1st and 4th March 2016.

Honors and Awards:

He was awarded Ph. D degree from University of Mumbai, Mumbai on 28 September 2018

Seminars/Conferences/Workshop/Symposia organized:

- i. Worked as Organizing Secretary “Three days NET/SET guidance workshop 2017” organized at The Institute of Science, Mumbai
- ii. Worked as Joint Organizing Secretary of RGSTC, Mumbai and NSERTC, Delhi sponsored ‘**National Seminar on Recent Trends in Science and Technology for Sustainable Developments 2018 (RTSTSD 2018)**’ organized by The Institute of Science, Mumbai during 22nd to 23rd March, 2018.

Invited Talks delivered

1. Invited as Chief Guest for Flag Festival Ceremony on 1st May 2018 organized by Grampanchayat at Savate, Tal-Shahuwai, Dist- Kolhapur.
2. Invited as Chief Guest for Flag Festival Ceremony on 26th January 2018 organized by Grampanchayat at Savate, Tal-Shahuwai, Dist- Kolhapur.

3. Invited as Chief Guest for intercollegiate activity "CHEMFUN" organized by N. G. Acharya and D. K. Marathe College of Arts, Science and Commerce, Chembur, Mumbai on 21st December 2017.
4. 'Redox Reaction and electrochemistry,' **B. M. Patil** – NET/SET Guidance workshop organized by Department of Chemistry, The Institute of Science, Mumbai during 7th to 9th December, 2017
5. Attended Chief Guest for Flag Festival Ceremony on 15 August 2017 organized by Vidyamandir Soute, at Savate, Tal-Shahuwai, Dist- Kolhapur.
6. Invited as a judge for the 43rd Jawaharlal Nehru Science Exhibition 2015 organized by Kendriya Vidyalaya No.III, Colaba, Mumbai on 12th and 13th October 2015.
7. Invited talk on Opportunities: B. Sc. in basic Science, organized by Shree. Vijaysinh Yadav Arts and Science College, Peth Wadgoan, Tal- Hatkangale, Dist- Kolhapur on 26th September 2014.

Membership of Committees;

1. Life Member. Indian Thermal Analysis Society, BARC, Mumbai, India
2. Member, School Development Committee, Vidyamandir Savate, At- Savate, Tal- Shahuwadi, Dist- Kolhapur

Topic Taught:

- i. Inorganic Reaction Mechanism.
- ii. Chemical Bonding
- iii. Instrumental Methods of Analysis.