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Dr. Mahendrasingh J. Pawar

PERSONAL SUMMARY

Profile: Male, 44, Married
Nationality: Indian
DOB: 04/04/1974

PROFESSIONAL INFORMATION

Position: Assistant Professor (since March-2000)
Department: Chemistry
Affiliation: **Arts, Commerce and Science College, Kiran Nagar, Amravati India 444606.**
Phone: +91-0721-2560394

QUALIFICATIONS

Ph.D. in Chemistry: March 2010 from Sant Gadge Baba Amravati University Amravati.
Bachelor of Education: 1998 (First Class) from Sant Gadge Baba Amravati University Amravati.
M.Sc. (Chem.): 1997 (First Class) from Sant Gadge Baba Amravati University Amravati.
Bachelor of Science: 1995 (First Class) from Sant Gadge Baba Amravati University Amravati.

RESEARCH INTEREST

Nanomaterials for Photocatalysis, Energy Conversion, Catalysis and Solid Oxide Fuel Cells
Nanosized Semiconductors for Environmental Applications
Development of New Methods for Synthesis of Nanomaterials

Teaching Experience

Lectures: Physical Chemistry for Undergraduate Students
Since: 15th March 2000
Institution: Arts, Commerce and Science College, Kiran Nagar, Amravati India.
Topics of Interest: Thermodynamics and Electrochemistry
Books Published: *Numbers:* 02 *Title:* 'Chemistry Beyond' Vol. I and II

Paper Presentations at International Conferences

1. Invited Speaker for 8th International Conference on Material and Manufacturing Technologies 2019
26-28 April 2019, *Kuala Lumpur, Malaysia*. [<http://www.icmmt.org/keynote.html>]
2. Paper presented in the 5th International Conference on Nanomaterials (CN-2016), Bangkok (14-16 January 2016).
3. Paper presenting in the 3rd Int'l Conference on Advanced Composite Materials (ACM 2017), Bangkok, (3-5 January 2017).

Major Research Project

Title of the Major Project	Funding Agency	Status
Sun-light Driven Novel Photocatalysts for Environmental Applications	University Grant Commission NEW DELHI, INDIA	COMPLETED BY AUGUST 2018

Publications in Journals

1. S.V. Jagtap, A.S. Tale, S.D. Thakare, **M.J. Pawar*** Effect of Annealing Temperature on Hydrogen Gas Sensitivity of Nanocrystalline SnO₂ Thin Films, **Journal of Nanoscience and Technology**, Volume 5, Issue 4, 2019 Pages 802 – 805.
2. **Mahendrasingh J. Pawar***, Manisha D. Gaonar, Rahul K. Taywade, H.G. Agrawal , **Ta-doped Nb₂O₅: Synthesis and Photocatalytic Activity**, **Journal of Nanoscience and Technology**, Volume 5, Issue 2, 2019, Pages 706-709.
3. **M.J. Pawar**, A.D. Ingle, Photodegradation of Acid Red 183 Dye Over Ag-CdS Nanoparticles, *Chem. Sci. Trans.*, 5(3) (2016), 645-650.
4. **M.J. Pawar**, A.D. Khajone, A.B. Ingale, M.D. Gaonar, Sol-gel Synthesis of Nanosized α -Fe₂O₃ and Photodegradation Acid Red 114 Dye, , *Int. J. Adv. Sci.Res. Tech.* 2(3) (2012) 600-605.
5. **M.J. Pawar**, A.D. Khajone, M.D. Gaonar, P.S. Chandel, Photodegradation of Malachite Green Dye over Sol-gel Synthesized Nanocrystalline α -Fe₂O₃, *Int. J. Adv. Sci. Res. Tech.* 2(2) (2012) 471-476.
6. **M.J. Pawar**, S.B. Bansod, J.R. Chaudhary, Influence of pH values on Synthesis of Nanocrystalline ZnWO₄ Powders, *J. Chem. Phar. Res.*, 4(3) (2012) 1842-1845.

7. **M.J. Pawar**, P.B. Kaware, R.V. Bijewar, Ce³⁺ doped TiO₂ Nanocrystals; Synthesis and Photocatalytic activity, *Int. J. Emerg. Sci.* 2(1) (2012) 149.
8. **M.J. Pawar**, S.S. Turkar, Nanocrystalline LaCoO₃: Synthesis by Low Temperature Combustion Method and Photocatalytic Activity, *Int. J. Adv. Sci. Res. Tech.* 2(1) (2012) 79-87.
9. **M.J. Pawar**, V.B. Nimbalkar, A.D. Khajone, P.B. Kaware, Sm and Yb co-doped Nanosized TiO₂: Synthesis and Photocatalytic Activity, *Proc. National Conf. on Recent Researches in Chemistry: A Journey Towards Social Upliftment*, 14 & 15 Feb. (2012), Wani, Yavatmal, 46-49.
10. **M.J. Pawar**, V.B. Nimbalkar, Synthesis and Phenol Degradation Activity of Zn and Cr doped TiO₂ Nanoparticles, *Res. J. Chem. Sci.* 2(1) (2012) 1-7.
11. **M.J. Pawar**, V.B. Nimbalkar, A.K. Khajone, Photocatalytic Degradation of Phenol with Nanosized TiO₂ Synthesized by EDTA-Glycol Method, *Int. J. Adv. Sci. Res. Tech.* 1(2) (2011) 422-437.
12. **M.J. Pawar**, S.S. Chaure, S.B. Deshmukh, Effect of Co co-doping on densification and activation energy of Ce_{0.9}Sm_{0.1}O_{2- δ} solid electrolytes, *J. Cer. Sci. Tech.*, 1 (2010) 27-31.
13. **M.J. Pawar**, S.D. Nimkar, P.P. Nandurkar, A.S. Tale, S.B. Deshmukh, S.S. Chaure, Effect of Sn²⁺ doping on optical properties of thiourea capped ZnS nanoparticles, *Chalcogenide Letters*, 7(2) (2010) 139-143.
14. **M.J. Pawar**, S.S. Chaure, Synthesis of CdS nanoparticles using glucose as a capping agent, *Chalcogenide Letters*, 6 (12) (2009) 689-693.
15. G.N. Chaudhari, S.V. Jagatap, N.N. Gedam, **M.J. Pawar**, V.S. Sangawar, Sol-gel synthesized semiconducting LaCo_{0.8}Fe_{0.2}O₃-based powder for thick film NH₃ gas sensor, *Talanta*, 78 (3) (2009) 1136-1140.
16. **M.J. Pawar**, G.N. Chaudhari, Ethanol sensing performances of modified CoFe₂O₄ nanocrystals prepared by polymerizable complex route, *J. Opt. Adv. Mate.* 10(10) (2008) 2574-2577.
17. **M.J. Pawar**, Gas sensing behavior of LaMnO₃ ceramic, *J. Opt. Adv. Mate.* 9(12) (2007) 3785-3789.
18. G.N. Chaudhari, A.B. Bodade, S.V. Jagtap, **M.J. Pawar**, CO sensing properties of Nanostructured La_{0.8}Sr_{0.2}CoO₃ sensors, synthesized by EDTA_Glycol method, *Sensors and Transducers Journal*, 98(11) (2008) 26-37.
19. G.N. Chaudhary, **M.J. Pawar**, Sensing behavior of Sr and Bi doped LaCoO₃ sensors, *Sensors and Transducers Journal*, 88(2) (2008) 74-78.
20. G.N. Chaudhari, P.R. Padole, S.V. Jagtap, **M.J. Pawar**, CO₂ sensing characteristics of Sm_{1-x}Ba_xCoO₃ (x = 0, 0.1, 0.15, 0.2) nanostructured thick film sensor, *Int. J. Smart Sens. Inte. Syst.* 1(3) (2008) 613-622.

- [1] M.J. Pawar*, S.V. Jagatap, G.N. Chaudhari, “Nanotechnology for Solid Oxide Fuel Cell (SOFC)”, Souvenir of National conference on Green Chemistry and its Perspective (2008), Dept. of Chemistry, Sant Gadge Baba Amravati University Amravati M.S. India, pp C-1.
- [2] S.P. Deshmukh, S.B. Bansod, U.S. Khandekar, J.R. Bansod, Y.R. Bansod, A.K. Maldhure, M.J. Pawar*, “Ionic liquids: Green solvents for future”, Souvenir of National conference on Green Chemistry and its Perspective (2008), Dept. of Chemistry, Sant Gadge Baba Amravati University Amravati M.S. India, B-7.
- [3] S.S. Deshpande, M.J. Pawar*, P.K. Lakade, M.A. Jane, V.N. Khedkar, “Nanotechnology: environmental and health issues”, Souvenir of National conference on Green Chemistry and its Perspective (2008), Dept. of Chemistry, Sant Gadge Baba Amravati University Amravati M.S. India, pp C-3.
- [4] G.N. Chaudhari, M.J. Pawar*, S.V. Jagatap, A.B. Bodade, A.V. Kadu, N.N. Gedam, “CO₂ sensing mechanism of modified SmCoO₃ nanomaterials”, Souvenir of National conference on Green Chemistry and its Perspective (2008), Dept. of Chemistry, Sant Gadge Baba Amravati University Amravati M.S. India, pp C-4.
- [5] G.N. Chaudhari, A.B. Bodade, S.V. Jagatap, N.N. Gedam, M.J. Pawar*, A.V. Kadu, “Acetone sensing characteristics of nanosized Cr_{1-x}Ti_xO₃ sensors”, Souvenir of National conference on Green Chemistry and its Perspective (2008), Dept. of Chemistry, Sant Gadge Baba Amravati University Amravati M.S. India, pp C-4.
- [6] M.J. Pawar*, S.S. Chaure, A.S. Tale, S.V. Jagtap, “Optical Properties of Zn_{1-x}Ti_xO nanoparticles” Souvenir of National Conference on Materials Science: Trends & Future – 2010, Vidya Bharti Mahavidyalaya Amravati, M.S. India, pp 25.
- [7] M.J. Pawar*, “Influence of pH values on synthesis of nanocrystalline ZnWO₄ powders”, Souvenir of National Conference on Materials Science: Trends & Future – 2010, Vidya Bharti Mahavidyalaya Amravati, M.S. India, pp 26.
- [8] M.J. Pawar*, S.S. Chaure, A.S. Tale, S.B. Deshmukh, “Synthesis of CdS nanoparticles using glucose as a capping agent” Souvenir of National Conference on Materials Science: Trends & Future–2010, Vidya Bharti Mahavidyalaya Amravati, M.S. India, pp 26.
- [9] N.N. Gedam*, S.V. Jagtap, M.J. Pawar, G.N. Chaudhari, “Electrical and Gas Sensing properties of spinel type Zn_{1-x}Cu_xFe₂O₄ thick film” Souvenir of National Conference on Materials Science: Trends & Future-2010, Vidya Bharti Mahavidyalaya Amravati, M.S. India, pp 30.
- [10] M.J. Pawar*, S.B. Deshmukh, R.V. Bijewar, P.B. Kaware, “Low temperature synthesis of ZnO nanorods”, Souvenir of National Conference on Materials Science: Trends & Future-2010, Vidya Bharti Mahavidyalaya Amravati, M.S. India, pp 60.
- [11] M.J. Pawar*, A. Khajone, S.N. Nimkar, P.D. Nandurkar, A.E. Chopde, D.D. Rathod, “Synthesis and Optical properties of metal ion doped ZnS nanoparticles”, Proceeding of National Conference on Advances in Materials Research (February 26-27, 2010), Shankarlal Khandelwal College, Akola, M.S. India, pp 122.

[12] M.J. Pawar*, S.V. Jagatap, V.B. Nimbalkar, S.S. Chaure, A.S. Tale, S.B. Deshmukh, “Low temperature synthesis of α -Fe₂O₃ nanoparticles”, Proceeding of National Conference on Advances in Materials Research (February 26-27, 2010), Shankarlal Khandelwal College, Akola, M.S. India, pp 123.

[13] M.J. Pawar*, S.S. Chaure, A.S. Tale, S.B. Deshmukh, “CdS nanoparticles; synthesis and characterization”, Proceeding of National Conference on Advances in Materials Research (February 26-27, 2010), Shankarlal Khandelwal College, Akola, M.S. India, pp 126.

Others

- Reviewer for journal “**Talanta**”.
- Life time membership of **European Optical Society (EOS) Munich Germany**.
- Life time membership of **International Union of Materials Research Societies (IUMRS)**.
- Life time membership of **The Indian Science Congress Association, Kolkata India**.