

CURRICULUM VITAE



PERSONAL INFORMATION:

NAME : Dr. Vijaykumar Jadhav (M.Sc. (Physics) PhD, NET)

CURRENT ADDRESS: Dr. Jadhav Vijaykumar Vinayakrao
Department of Physics
Shivaji Mahavidyalaya,
Udgir, Dist. Latur
Maharashtra, India

E-Mail Id : Vijaypatil409@gmail.com,

Google Scholar: https://scholar.google.co.in/citations?user=xSNp_VMAAAAJ&hl=en

ResearchGate: https://www.researchgate.net/profile/Vijaykumar_Jadhav/publications

Homepage: <https://sites.google.com/site/cnessps/>

NATIONALITY : Indian.

DATE OF BIRTH : 23rd March 1987.

GENDER : Male

MARTIAL STATUS : Unmarried.

MOBILE NUMBER : +919765267986, +919503743661 (India)

CATEGORY : OPEN- (Hindu-Maratha)

RESEARCH INTERESTS:

- ✚ Synthesis of **MXene** for energy storage application
- ✚ Synthesis of Graphene by using CVD and hemmers method for energy storage applications
- ✚ Also interested in synthesis metal oxides/chalcogenides and composite nanostructure using variety of chemical methods in particular, supercapacitors, solar cells, and gas sensors application.
- ✚ Free standing graphene synthesis
- ✚ Chemical gas sensor

Educational Qualification:

1. **PhD in Physics**, Title “**Electrochemical Supercapacitors of Bismuth, Cobalt and Bi-Co Ferrite Nanostructures**” completed Under the guidance of **Prof. R. S. Mane** in School of Physical Science, SRTMU Nanded MH India, 431606 (2011-2015)
2. **NET (National Eligibility Test) Qualified in DEC-2012. All India Rank 360**
3. **PET (PhD Exam) in PHYSICS University FIRST Topper** (Sept.2010)
4. **M.Sc. in physics (Material Sciences and Fiber optics)** (2009)
S. R. T. M. University, Nanded. **CGPA 8.33, University Second Topper.**
5. **B.Sc. (Mathematics, Physics, Chemistry)** (2007)
S. R. T. M. University, Nanded **Percentage 73.33%, Firstclass with Distinction**
6. **H.S.C Passed out in Feb 2004 from Latur Board with 73.33%. First Class** (2004)
7. **S.S.C Passed out in March 2002 from Latur Board with 81.19%. First Class** (2002)

Skills:

Laboratory Instrument Handling Skills:

1. Worked as FE-SEM operator, Hitachi, S-4800, 15 kV
2. Expert in handling D8 advance Bruker X-ray Diffractometer
3. Expert in synthesis of graphene by using CVD and hummers method.
3. Expert in IVIUMnSTAT multichannel electrochemical analyser workstation also in Potentiostat (Model WonAtech 100).
4. Expert in Bruker QUANTAX EDS for Scanning Electron microscope instrument.
5. Also expert in handling in other instrument like Rotary pump, Gas Sensor, Spray pyrolysis, Spincoater, Solar Simulator, Forprobe Technique, UV Spectrometer, FTIR, Autoclave.

Thin Film Deposition Skills:

Chemical Vapor Deposition (CVD), Electrodeposition, Hydrothermal, CBD, SILAR, Sol-Gel, Doctorblading, Spray pyrolysis, Spin coating, Dip Coating, Screen Printing.

Computer Oriented Skills:

Known Languages: C, C++, Fortran, Microsoft office

Conference/Workshop/School/Meet

1. “**Ultra-Cold Atoms for Fundamental Science and Enabling Technologies**” held during December 16-20, 2013 held at the IISER Pune, India.

2. **“Emerging Trends in Nanoscience and Nanotechnology”** under TEQIP II, conducted by Department of Physics and Instrumentation SGGSI & T, Nanded from 6th-10th August, 2013
3. **“International Conference on Recent Innovations in Nano-Bio-Polymer-Pharmaceutical Technologies”** held at S. R. T. M. University Nanded in January 13-14, 2013
4. **UGC Sponsored National Seminar On “Developments in Thin Film Processing and Characterization Technology”** held at BHARATI VIDYAPEETH DEEMED UNIVERSITY, PUNE (INDIA) in October 8th and 9th 2012.
5. **Workshop on Interdisciplinary Nanoscience** held on 26 Feb. 2012 at held at S. R. T. M. University Nanded
6. **National Workshop on Nanotechnology and Intellectual Property Rights and Patents in Science and Technology from Nanotechnology Perspectives”** held at B. A. M. University Aurangabad in February 16-17, 2012
7. **6th Asian conference on Electrochemical power sources**, held at Hotel, green park Chennai Jan 5-8, 2012
8. **National Workshop on GALAXIES: NORMAL & ACTIVE”** Jointly organized by IUCAA, Pune and S.R.T.M. University on 14-17,2011
9. **National Workshop on Nanostructured Materials for Energy Devices and Environment** held at Mumbai University on 17-18 August 2011
10. **International Conference on Nanotechnology** held at S. R. T. M. University Nanded in January 11-12, 2011
11. **UGC Sponsored Seminar on Photonic Materials and Nanotechnology** held's on 23 and 24th January 2009 held at S. R. T. M. University Nanded

Academic Project:

I have completed project at M.Sc. level on the topic of **“ZnO thick film synthesis as CO₂ gas Sensor”** Under the guidance of **Prof. R. S. Khairnar**

Experience:

1. Now Selected for IRISH Government postdoctoral fellowship in **University College of Cork, Dublin, Cork, Ireland**
2. **Completed IKRI (Indo-Korea Research Project) from 11 Jan 2015 to 31 Dec 2016 in School of Material science and engineering, Pusan National University, Busan, South Korea with Prof. K. N. Hui**
3. **Postdoc experience in Global Hybrid material interface, Pusan National University under guidance of Prof Kang Ho Kim (one and half years)**

4. One Year Teaching experience as assistant professor in Yeshwant College, Nanded in academic year 2013-2014 in graduation level (B.Sc).
5. Working as reviewer of Royal chemical Society (RSC) and International Elsilver Journals
6. **Three Month Research Experience in Hanyang University, Seoul, South Korea from 1 May-27 July 2012**

PhD Thesis Title: “Electrochemical Supercapacitors of Bismuth, Cobalt and Bi-Co Ferrite Nanostructures” completed under the guidance of **Prof. R. S. Mane**

Paper Published:

1. **Polyaniline-cobalt hydroxide hybrid nanostructures and their supercapacitor studies**
Janardhan H Shendkar, Manohar Zate, Kailas Tehare, **Vijaykumar V Jadhav**, Rajaram S Mane, Mu Naushad, Je Moon Yun, Kwang Ho Kim
Materials Chemistry and Physics 180 (2016) 226-236 [Impact Factor; 2.1](#)
2. **Protective role of biogenic selenium nanoparticles in immunological and oxidative stress generated by enrofloxacin in broiler chicken**
Shubhangi Shirsat, Ambadas Kadam, Rajaram S. Mane, **Vijaykumar V. Jadhav**, Manohar K. Zate, Mu. Naushad and Kwang Ho Kim
Dalton Transactions (2016) 8845-8853 [Impact Factor; 4.1](#)
3. **An eco-friendly physicochemical-based rapid synthesis of selenium nanoparticles**
Shubhangi Shirsat, Ambadas Kadam, **Vijaykumar V Jadhav**, Manohar K Zate, Mu Naushad, BN Pawar, Rajaram S Mane, Kwang Ho Kim
RSC Advances 6 (2016) 48420-48426 [Impact Factor; 3.2](#)
4. **Facile Synthesis of Microsphere Copper Cobalt Carbonate Hydroxides Electrode for Asymmetric Supercapacitor**
S Liu, KS Hui, KN Hui, VV Jadhav, QX Xia, JM Yun, YR Cho, RS Mane, Kwang Ho Kim
Electrochimica Acta 188 (2016) 898-908 [Impact Factor; 4.8](#)
5. **Synthesis and electrochemical supercapacitive performance of nickel-manganese ferrite composite films**
Manohar K. Zate, Shoyeb Mohamad F. Shaikh, **Vijaykumar V. Jadhav**, Kailas K. Tehare, S.S. Kolekar, Rajaram S. Mane, Mu. Naushad, B. N. Pawar, and K. N. Hui
Journal of Analy. and Applied Pyrolysis 116 (2015) 177-182 [Impact Factor; 3.6](#)

- 6. Mixed phase Bismuth ferrite Nano-flakes electrodes for supercapacitor application**
Vijaykumar V. Jadhav, Manohar K. Zate, Shude Liu, Mu. Naushad, Rajaram S. Mane, K. N. Hui, Sung-Hwan Han.
Applied Nanoscience 6 (4), 511-519 [\(Springer publication\)](#)
- 7. Morphology-inspired Low-temperature Liquefied Petroleum Gas Sensors of Indium Oxide**
Vijaykumar V. Jadhav, Dipak V. Shinde, Supriya A Patil, Shude Liu, Sandesh U Mutkule, Mu. Naushad, Rajaram S. Mane, K. N. Hui, Sung-Hwan Han
Scripta Materialia 107 (2015) 54-58 [Impact Factor; 3.3](#)
- 8. Diameter-dependent electrochemical supercapacitive properties of anodized titanium oxide nanotubes**
Ahmed AL-Osta, Vijaykumar V. Jadhav, Rajaram S. Mane, K. N. Hui, Sung-Hwan Han
Scripta Materialia 104 (2015) 60-63 [Impact Factor; 3.3](#)
- 9. Electrochemical supercapacitor of anodized-brass-templated NiO nanostructured electrodes**
Ahmed AL-Osta, Vijaykumar V. Jadhav, Manohar K. Zate, Rajaram S. Mane, K. N. Hui, Sung-Hwan Han
Scripta Materialia 99 (2015) 28-32 [Impact Factor; 3.3](#)
- 10. A simple, room temperature, solid-state synthesis route for metal oxide nanostructures**
Supriya A. Patil, Dipak V. Shinde, Do Young Ahn, Dilip V. Patil, Kailas K. Tehare, Vijaykumar V. Jadhav, Joong L. Lee, Rajaram S. Mane, Nabeen K. Shrestha, Sung-Hwan Han,
J. Mater. Chem. A, 2014, 2, 13519-13526 [Impact Factor; 8.2](#)
- 11. A coordination chemistry approach for shape controlled synthesis of indium oxide nanostructures and its photoelectrochemical properties**
Dipak V. Shinde, Do-young Ahn, Vijaykumar V. Jadhav, Deok Yeon Lee, Nabeen K Shrestha, Joong Kee Lee, Hwa Young Lee, Rajaram S. Mane and Sung-Hwan Han
J. Mater. Chem. A, 2014, 2, 5490-5498 [Impact Factor; 8.2](#)
- 12. Current density enhancement in ZnO/CdSe photoelectrochemical cells in presence of charge separating SnO₂ nanoparticles interfacing-layer**
Supriya A. Patil, Dipak V. Shinde, Sambhaji S. Bhande, Vijaykumar V. Jadhav, Tran.N. Huan, Rajaram S. Mane, Sung-Hwan Han
Dalton Trans., 2013, 42, 13065-13070 [Impact Factor; 4.1](#)

13. Hematite Nanostructures: Morphology-mediate Liquefied Petroleum Gas sensors

Vijaykumar V. Jadhav, Supriya A. Patil, Dipak V. Shinde, Shivaji D. Waghmare, Manohar K. Zate, Rajaram S. Mane, Sung-Hwan Han

Sensors and actuators B: chemical 188 (2013) 669-674 [Impact Factor; 4.7](#)

14. Efficient Gas Sensitivity in Mixed Bismuth Ferrite Micro (cubes) and Nano (plates)-structures

Shivaji D. Waghmare, Vijaykumar V. Jadhav, Shaym K. Gore, Seog-Joon Yoon, Swapnil B. Ambade, B. J. Lokhande, Rajaram S. Mane, and Sung-Hwan Han

Materials Research Bulletin 47 (2012) 4169–4173 [Impact Factor; 2.4](#)

15. Electrochemistry of Anodized Copper Hydroxide Nanostructures

Vijaykumar V. Jadhav, Dipak V. Shinde, Supriya A. Patil, Manohar K. Zate, Ahmed AL- Osta, Rajaram S. Mane and Sung-Hwan Han

J. Nanoeng. Nanomanuf.4 (2014)168-172 [\(American Scientific publisher\)](#)

16. Electrochemical Supercapacitive Properties of Sprayed Nickel Ferrite Nanostructured Thin Film Electrodes

Manohar K. Zate, Shoyeb Mohamad F. Shaikh, Vijaykumar V. Jadhav, Shivaji D. Waghmare, Rajaram S. Mane, Sung-Hwan Han and Oh-Shim Joo

J. Nanoeng. Nanomanuf.4 (2014) 93-97 [\(American Scientific publisher\)](#)

17. Synergic Electrochemical Supercapacitance in Hybrid (polymer/inorganic) Nanostructures

Vijaykumar V. Jadhav, Supriya Patil, Ji-Yeon Lim, Shoyeb Mohamad F. Shaikh, Rajaram S.

Mane, Sung-Hwan Han, and Oh-Shim Joo, Published in SOUVENIUGC Sponsored National

Confer. on Nanotechnology (NCN-2012) 7, 8 Sept 2012 **ISBN: 978-81-924894-4-5**

Paper Submitted

18. Electrochemical Properties of Bismuth Ferrites/graphene nanostructures

Vijaykumar V. Jadhav, Dipak V. Shinde, Supriya A. Patil, Rajaram S. Mane and Sung- Hwan Han, [Submitted to Nanoscale](#)

19. Electrochemical Properties of Cobalt Ferrites/graphene nanostructures

Vijaykumar V. Jadhav, Dipak V. Shinde, Supriya A. Patil, Rajaram S. Mane and Sung-Hwan Han, [Submitted to RSC advance](#)

20. Porous Microsphere Copper Cobalt Carbonate Hydroxide as High Performance Supercapacitor Electrodes

Shude Liu, K.S. Hui, K.N. Hui, Vijaykumar V. Jadhav, Qi Xun Xia, Sung Dae Kim, Si Young Cho, Rajaram S. Mane, Kwang Ho Kim. [Submitted to J. Mater.Chem. A](#)

21. Porous CuCo_2O_4 nanosheet anchored on the graphite sheet for high-performance supercapacitor and high sensitivity non-enzymatic glucose sensor applications

Shude Liu, K.S. Hui, K.N. Hui, Vijaykumar V. Jadhav, R S Mane
[Submitted to ACS applied material interface](#)

22. CuO/NiO bi-layered electrode: Enhanced electrochemical supercapacitor properties

Ahmed AL-Osta, Bushra sale hsamar, Vijaykumar V. Jadhav, Manohar K. Zate, Rajaram S. Mane, K. N. Hui, Sung-Hwan Han, [Submitted Journal of Power Source](#)

References:

1. Prof. R. S. Mane

Center for Nonmaterial and Energy Devices,
School of Physical Sciences
Swami Ramanand Teerth Marathwada University, Nanded- 431606
E-mail: rsmane_2000@yahoo.com

2. Prof. Kwang Ho Kim

Thin Film Lab, Room No. 2413-1, Building of Engineering # 2,
School Of Material Science and Engineering,
Pusan National University, Jangjeon-dong 30, Geumjeong-gu,
Busan, 609-735, South Korea
Email: kwhokim@pusan.ac.kr

3. Prof. Biz K. N. Hui

Rm 2303-3, Engineering Building No. 2
School of Materials Science and Engineering
Pusan National University
San 30 Jangjeon-dong, Geumjeong-gu,
Busan, 609-735, Korea
Email: bizhui@pusan.ac.kr; bizhui@gmail.com

- 4. Prof. Sung-Hwan Han (한성환),**
Head of Chemistry Department
Head of BK Center for Creative Chemists
Hanyang University
Seoul, Korea 133-791
E-mail: shhan@hanyang.ac.kr

DECLARATION:

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

Date: 25/07/2016

Place: Udgir, Latur, MH India

Signature

(Dr. Jadhav Vijaykumar V.)