

Name of the faculty: Prin. Dr. B.S. Jagdale



Designation	Principal
Name of the department	Chemistry
E-mail	jagdalebs@gmail.com
Qualification	M.Sc., Ph.D.
Administrative Positions	
<ol style="list-style-type: none">1. Trustee, Mahatma Gandhi Vidyamandir, Nashik.2. Coordinator, Higher Education, Mahatma Gandhi Vidyamandir, Nashik3. Principal	
Representation on Academic / Administrative bodies / Member of organizational bodies.	
<ol style="list-style-type: none">1. Member, College Development Committees of 9 Colleges of Mahatma Gandhi Vidyamandir.2. Member, IQAC of all Colleges of Mahatma Gandhi Vidyamandir3. Secretary, Principal forum, Nashik District.4. Vice Chancellor Nominee on selection committee for appointment of Principal5. Subject Expert on Selection Committee for appointment of lecturer6. Chairman, Local Inquiry Committee, S.P.P.U., Pune7. Member, Local Inquiry Committee8. University representative for NAAC Visit9. NAAC Assessor10. UGC Observer, CAS selection for Professor at Kurukshetra University, Hariyana.11. Nodal Officer of Nashik District for National Education Policy.12. Member, Regional Direct Taxes Advisory Committee (RTDAC), Nashik.13. External expert in College development committee at KK Wagh College, Nashik	
Teaching Experience: More than 30 Years	

Awards / Recognitions

1. "Education Leadership Award" for contribution in the field of Education by Dewang Mehta National Education Awards and Business School Affaire on 21st August, 2017.
2. State level "Dnyanpith" award by Dnyanoday Bahu-uddeshiy Sanstha 11th September, 2021.

Research Guidance for M.Phil./Ph.D./Project

1. Recognized as a Research Supervisor and guiding Ph.D. Students in the subject of Chemistry, SPPU, Pune Letter No. BUTR/Science/243/76, dated 09.10.2011.
2. Four students completed Ph.D. degrees, two students have submitted thesis and 03 other perusing Ph.D. degree.
3. Guided many students for M.Sc. projects

Research Projects:

1. A Minor Research Project, sanctioned by UGC (WRO), completed. Sanctioned Amount : Rs. 1,65,000/- Topic: "Synthesis, Theoretical and Anti- bacterial/Fungal Activity Studies of New Fluorinated Heterocyclic Compounds"

Reviewer of Journals

1. Medicinal Chemistry Research
2. IEEE Sensors Journal
3. Material Science Research India
4. Journal of Applied Pharmaceutical Science

Patent / Copyright

1. "Solar Power Base Automatic Vehicle for Water Transportation" vide Application No. 201621042273, dated 12/12/2016.
2. Synthesis of Novel Compound (E)-4-(2-(2-(1,2,6,7-Tetrahydro-8H-indeno[5,4- b]furan-8-ylidene)hydrazineyl)thiazol-4-yl)benzotrile, Application No. 201921037398 A, Date of filing of Application: 17/09/2019, Publication Date: 11/10/2019.

Research paper publication details

Sr. No.	Details of the research paper	Year
1.	<p>Densities and viscosities of binary mixtures of toluene with methanol, ethanol, propan-1-ol, butan-1-ol, pentan-1-ol, and 2-methylpropan-2-ol at (303.15, 308.15, 313.15) K</p> <p>Journal of Chemical & Engineering Data 45 (4), 559-563</p>	2000
2.	<p>Antibacterial potential of silver nanoparticles synthesized using Madhuca longifolia flower extract as a green resource</p> <p>Microbial pathogenesis 121, 184-189</p>	2018
3.	<p>Densities and viscosities for binary mixtures of benzonitrile with methanol, ethanol, propan-1-ol, butan-1-ol, pentan-1-ol, and 2-methylpropan-2-ol at (303.15, 308.15, and 313 K</p> <p>Journal of Chemical & Engineering Data 45 (2), 214-218</p>	2000
4.	<p>Exploration of catalytic performance of nano-La₂O₃ as an efficient catalyst for dihydropyrimidinone/thione synthesis and gas sensing</p> <p>Journal of Nanostructure in Chemistry 9 (1), 61-76</p>	2019
5.	<p>Efficient synthesis, antibacterial, antifungal, antioxidant and cytotoxicity study of 2-(2-hydrazineyl) thiazole derivatives</p> <p>ChemistrySelect 5 (9), 2778-2786</p>	2020
6.	<p>Ultrasound promoted stereoselective synthesis of 2, 3-dihydrobenzofuran appended chalcones at ambient temperature</p> <p>South African Journal of Chemistry 73, 35-43</p>	2020
7.	<p>Aqua-mediated rapid and benign synthesis of 1, 2, 6, 7-tetrahydro-8H-indeno [5, 4-b] furan-8-one-appended novel 2-arylidene indanones of pharmacological interest at ambient temperature</p> <p>Journal of the Chinese Chemical Society 67 (2), 306-315</p>	2020

8.	Solvent-free grindstone synthesis of four new (<i>E</i>)-7-(arylidene)-indanones and their structural, spectroscopic and quantum chemical study: a comprehensive theoretical and experimental exploration Molecular Simulation 46 (14), 1045-1054	2020
9.	Experimental and theoretical exploration on single crystal, structural, and quantum chemical parameters of (<i>E</i>)-7-(arylidene)-1, 2, 6, 7-tetrahydro-8 H-indeno [5, 4-b] furan-8 -one Journal of the Chinese Chemical Society 67 (10), 1763-1777	2020
10.	DFT computational insights into structural, electronic and spectroscopic parameters of 2-(2-Hydrazineyl) thiazole derivatives: a concise theoretical and experimental approach Journal of Sulfur Chemistry 42 (2), 131-148	2021
11.	Ultrasonic studies in mixtures of benzonitrile with some alkanols and toluene NISCAIR-CSIR, India	2001
12.	Ultrasonic study of binary liquid mixtures of benzonitrile with alkanols (C1-C3) at various temperatures Acoustics Letters 22 (10), 199-203	1999
13.	Poly (ethylene glycol)(PEG-400): A green approach towards synthesis of novel pyrazolo [3, 4-d] pyrimidin-6-amines derivatives and their antimicrobial screening Archives of Applied Science Research 6 (2), 61-66	2014
14.	Investigation of Structural and Spectroscopic Parameters of Ethyl 4-(4-isopropylphenyl)-6-methyl-2-oxo-1, 2, 3, 4-tetrahydropyrimidine-5-carboxylate: a DFT Study. Chemistry & Biology Interface 10 (1)	2020
15.	Sonochemical studies of binary liquid mixtures of toluene with methanol, ethanol, propan-1-ol, butan-1-ol, pentan-1-ol, and 2-methylpropan-2-ol at 303.15, 308.15 and 313.15 K	2000

	Journal of Pure and Applied Ultrasonics 22 (4), 115-122	
16.	Molecular structure, frontier molecular orbitals, MESP and UV-visible spectroscopy studies of Ethyl 4-(3, 4-dimethoxyphenyl)-6-methyl-2-oxo-1, 2, 3, 4-tetrahydropyrimidine Material Science Research India 17 (specialissue2020), 13-36	2020
17.	Experimental and Theoretical Studies on the Molecular Structure, FT-IR, NMR, HOMO, LUMO, MESP, and Reactivity Descriptors of (E)-1-(2, 3-Dihydrobenzo [b][1, 4] dioxin-6-yl)- 3-(3,4,5-trimethoxyphenyl)prop-2-en-1-one Material Science Research India 17, 54-72	2020
18.	Structural, Spectroscopic (UV-Vis and IR), Electronic and Chemical Reactivity Studies of (3, 5-Diphenyl-4, 5-dihydro-1H-pyrazol-1-yl)(phenyl) methanone Physical Chemistry Research 9 (2), 193-209	2021
19.	Experimental and Computational Investigations on the Molecular Structure, Vibrational Spectra, Electronic Properties, FMO and MEP Analyses of 4, 6-Bis (4-Fluorophenyl)-5, 6-dihydropyrimidin-2 (1H)-one: A DFT Insight Physical Chemistry Research 8 (4), 671-687	2020
20.	Efficient synthesis, spectroscopic and quantum chemical study of 2, 3-dihydrobenzofuran labelled two novel arylidene indanones: A comparative theoretical exploration Material Science Research India 17 (2), 146-161	2020
21.	Synthesis, antibacterial and computational studies of Halo Chalcone hybrids from 1-(2, 3-Dihydrobenzo [b][1, 4] dioxin-6-yl) ethan-1-one Journal of the Indian Chemical Society 98 (4), 100051	2021
22.	Synthesis, spectroscopic characterization, XRD crystal structure, DFT and antimicrobial study of (2E)-3-(2, 6-dichlorophenyl)-1-(4-methoxyphenyl)-prop-2-en-1-one SN Applied Sciences 2 (8), 1-12	2020

23.	Molecular structure, electronic, chemical and spectroscopic (UV-visible and IR) studies of 5-(4-chlorophenyl)-3-(3, 4-dimethoxyphenyl)-1-phenyl-4, 5-dihydro-1H-pyrazole ... Material Science Research India 17, 27-40	2020
24.	Superfast synthesis, antibacterial and antifungal studies of halo-aryl and heterocyclic tagged 2, 3-dihydro-1H-inden-1-one candidates Monatshefte für Chemie-Chemical Monthly 152 (6), 649-658	2021
25.	DFT Studies of 2-[(2-substitutedphenyl) carbamoyl] benzoic acids Journal of Chemical, Biological and Physical Sciences 7, 167-175	2017
26.	Molecular structure, frontier molecular orbital and spectroscopic examination on dihydropyrimidinones: a comparative computational approach Journal of Advanced Scientific Research 11 (Suppl 2), 64-70	2020
27.	Synthesis and characterization of ZnO/CuO nanocomposites as an effective photocatalyst and gas sensor for environmental remediation Journal of Inorganic and Organometallic Polymers and Materials 32 (3), 1045-1066	2022
28.	Synthesis and DFT based quantum chemical studies of 2-(3-bromophenyl)-4-(4-bromophenyl)-2, 3-dihydro-1H-1, 5-benzodiazepine Journal of Advanced Scientific Research 11 (Suppl 2), 87-94	2020
29.	Synthesis, Spectroscopic Characterization, Quantum Chemical Study and Antimicrobial Study of (2E)-3-(2, 6-Dichlorophenyl)-1-(4-Fluoro)-Prop-2-En-1-One Material Science Research India 17 (3), 281-293	2020
30.	Molecular structure, vibrational spectra and theoretical HOMO-LUMO analysis of (E)-3, 5-dimethyl-1-phenyl-4-(p-tolyldiazenyl)-1H-pyrazole by DFT method Der. Pharma. Chemica 8, 119-128	2016

31.	Transition metals Ni ²⁺ , Fe ³⁺ incorporated modified ZnO thick film sensors to monitor the environmental and industrial pollutant gases Orient. J. Chem. 36 (6), 1049-1065	2020
32.	Synthesis, characterization and theoretical study of 3-(4-bromophenyl)-5-(2, 4-dichlorophenyl)-1-phenyl-4, 5-dihydro-1H-pyrazole J. Applicable Chem 8, 12-19	2019
33.	Transition metals Fe ³⁺ , Ni ²⁺ modified titanium dioxide (TiO ₂) film sensors fabricated by CPT method to sense some toxic environmental pollutant gases Journal of the Indian Chemical Society 98 (9), 100126	2021
34.	Design, fabrication, antitubercular, antibacterial, antifungal and antioxidant study of silver doped ZnO and CuO nano candidates: A comparative pharmacological study Current Research in Green and Sustainable Chemistry 4, 100138	2021
35.	Microwave prompted solvent-free synthesis of new series of heterocyclic tagged 7-arylidene indanone hybrids and their computational, antifungal, antioxidant, and cytotoxicity study Bioorganic Chemistry 115, 105259	2021
36.	Effect of firing temperature on structural and electrical parameters of synthesized CeO ₂ thick films SN Applied Sciences 1 (4), 1-9	2019
37.	PEG-400 mediated synthesis, computational, antibacterial and antifungal studies of fluorinated pyrazolines Current Research in Green and Sustainable Chemistry 4, 100172	2021
38.	DFT Exploration on Molecular Characteristics of 6-Methyl-2-oxo-4-phenyl-1, 2, 3, 4-tetrahydropyrimidine-5-carboxylate Journal of Advanced Chemical Sciences, 717-720	2021

39.	Designing of screen-printed stannous oxide (SnO ₂) thick film sensors modified by cobalt and nitrogen elements for sensing some toxic gases and volatile organic compounds Current Research in Green and Sustainable Chemistry 4, 100213	2021
40.	Fe ³⁺ modified zinc oxide nanomaterial as an efficient, multifaceted material for photocatalytic degradation of MB dye and ethanol gas sensor as part of environmental rectification Inorganic Chemistry Communications 140, 109450	2022
41.	Synthesis, spectral analysis, antibacterial, antifungal, antioxidant and hemolytic activity studies of some new 2, 5-disubstituted-1, 3, 4-oxadiazoles Journal of Molecular Structure 1253, 132216	2022
42.	Antimicrobial and computational investigation of two 2,3-dihydro-1 <i>H</i> -inden-1-one derived fluorinated chalcone motifs Vietnam Journal of Chemistry 59 (6), 800-812	2021
43.	Synthesis, Computational, Antibacterial and Antifungal Investigation of Two Tri-Fluorinated Chalcones of 1-(2,3-Dihydrobenzo[<i>b</i>][1,4]dioxin-6-yl)ethan-1-one Polycyclic Aromatic Compounds, 1-18	2021
44.	Computational Chemistry: Sulfamic Acid Catalyzed PEG-400 Mediated Synthesis, Molecular Structure, HOMO–LUMO, UV-visible, Vibrational, and Reactivity Descriptors Analysis of 2 of 2-(Furan-2-yl)-1 <i>H</i> -benzo [d] imidazole Orbital: The Electronic Journal of Chemistry, 413-419	2021
45.	Molecular Structure, FT-IR Spectra, MEP and HOMO-LUMO Investigation of 2-(4-Fluorophenyl)-5-phenyl-1, 3, 4-oxadiazole Using DFT Theory Calculations Advanced Journal of Chemistry-Section A 4 (3), 220-230	2021
46.	Review on synthesis and biological activity of chalcone International Journal of Research and Analytical Reviews (IJRAR) 6 (1)	2019

47.	Synthesis, molecular structure, electronic, spectroscopic, NLO and antimicrobial study of N-benzyl-2-(5-aryl-1, 3, 4-oxadiazol-2-yl) aniline derivatives Journal of Molecular Structure 1262, 133017	2022
48.	Nano 5% Fe–ZnO: A highly efficient and recyclable heterogeneous solid nano catalyst for the Biginelli reaction Journal of the Indian Chemical Society 99 (6), 100468	2022
49.	Computational Study on Molecular Structure, UV-Visible and Vibrational Spectra and Frontier Molecular Orbital Analysis of (E)-7-((2-Chloroquinolin-3-yl)methylene)-1, 2, 6, 7-tetrahydro-8H-indeno [5, 4-b] furan-8-one Research Journal of Pharmacy and Technology 15 (3), 1101-1108	2022
50.	Spectroscopic (FTIR and UV), quantum Chemical, antifungal and antioxidant investigations of (E)-7-(4-(trifluoromethyl) benzylidene)-1, 2, 6, 7-tetrahydro-8H-indeno [5, 4-b] furan-8-one Vietnam Journal of Chemistry 59 (5), 689-700	2021
51.	Synthesis, Molecular Structure, HOMO-LUMO, Chemical, Spectroscopic (UV-Vis and IR), Thermochemical Study of Ethyl 6-amino-5-cyano-2-methyl-4-(4-nitrophenyl)-4H-pyran-3-carboxylate: A DFT Exploration Material Science research India, 179-189	2021

Books published / chapters in a book

1. Intermediates and Rearrangements in Organic Synthesis, Himalaya Publishing House, ISBN-978-93-5262-001-2
2. Chemistry Concepts Through MCQ Approach, Walnut Publication, ISBN- 9789355741837

Conferences/Seminars/ Workshop organized / attended

Research papers are presented and published at international, national, and state-level conferences.

Experience as Resource Person

1. Delivered talks in various national and state-level conferences, seminars and workshops,

Social Media links

Research gate	https://www.researchgate.net/scientific-contributions/Bapu-Sonu-Jagdale-2199506276
Google Scholar	https://scholar.google.com/citations?user=Cdv0qdsAAAAJ&hl=en
Orcid Id	https://orcid.org/0000-0003-2419-7410