Dr. B M Rajesh

Designation :Assistant Professor (Senior Scale)
Qualification :M.Sc, MPhil, Ph. D
Experience :Teaching- 12 years
Area of Interest :Condensed Matter Physics,
Computational Physics,
Density Functional Theory.
Date of joining at RVCE :03/02/2016
Email.ID :rajeshbm@rvce.edu.in

Project:
Number of Doctorate Students

Completed: 01 Guiding: 01

Publication

National Journals	National Conferences	International Journals	International Conferences	Book/Book Chapter Published	Patent Granted/Published
08	15	18	7	02	

List of Publications:Journals/Conferences

1. Chandra, Vinay Kumar D.C, Shamantha Kumar, Narasimha Murthy K.H, **Rajesh B.M**, Lohith T.N., "Ordering self-assembly structures via Nsingle bondH···S and Br···S interactions in (E)-2-(4-bromobenzylidene)hydrazinecarbothioamide : Insights from crystallographic and computational study",Journal of Molecular Structure, 1310,pp-138285,(2024).
2. S Madhu, HC Manjunatha, N Sowmya, **Rajesh BM**, L Seenappa, 'Investigation on Xenon-Induced Fusion Reaction to Synthesize Superheavy Element (SHE) Z= 119', Brazilian Journal of Physics, 54, 135, 2024.
3. S Madhu, HC Manjunatha, N Sowmya, **BM Rajesh**, L Seenappa, RS Susheela, 'Cr-induced fusion reactions to synthesize superheavy elements', Nuclear Science and Techniques, 35, 90, 2024.
4. S Madhu, HC Manjunatha, N Sowmya, **BM Rajesh**, L Seenappa, "^{70}Zn-induced fusion reactions for synthesis of superheavy element Z=120", Modern Physics Letters A, 39(13), 2450055 (2024).
5. D Sahana, CS Dileep, TN Lohith, P Akhileshwari, N Srikantamurthy, **BM Rajesh**, MA Sridhar, "Crystal structure studies, Hirshfeld surface analysis, 3D energy frameworks, computational studies and docking analysis of a 2-(4-nitrophenyl)-2-oxoethyl 2-methoxybenzoate", Journal of Molecular Structure, 1282, pp-135215, (2023).
6. D. Sahana, R. Gopalkrishne Urs C. S. Dileep, N. Srikantamurthy, B. Vrushabendra, Chandra, **B. M. Rajesh**, D. M. Gurudatt, "Structural Characterization, and Computational Analysis of (E)-6-bromo-3-(3,4-dimethoxybenzylidene)-7-methoxy-1-tosyl-2,3-dihydroquinolin-4(1 H)-one", 68, pp-14–23, (2023).
7. Shivakumar Anantharaman, Krishna Honnur, **Biligere Muddegowda Rajesh**, "Electrostatic potential mapping of ascorbic acid and dimethoxyaniline for the antioxidant evaluation capacity"Monatshefte für Chemie - Chemical Monthly, 154, pp 741–754, (2023).
8. T. K. Madhura, **B. M. Rajesh**, K. Chandra Kumar, Chandra, Srikantamurthy N, "Synthesis, Crystal Structure, Hirshfeld Surface, DFT and Molecular docking studies of (E)-3-(4-chlorophenyl)-1-(2, 4-difluorophenyl) prop-2-en-1-one", Journal of Pharmaceutical Negative Results, 7(7), 2665-2689, 2022.
9. Shamantha Kumar,Chandra,**B. M. Rajesh**,B. H. Doreswamy,Y. C. Sunilkumar,Ajil N. Nair&Mohit Bajpai, "Synthesis, crystal structure, spectroscopic characterization, Hirshfeld surface analysis, DFT calculation and molecular modeling studies of 1-(4-Nitro-phenyl)-3,5-di-thiophen-2-yl-1H-pyrazole, Molecular Crystals and Liquid Crystals, 1-19, 2022.
10. S Shubha, **BM Rajesh**, DN Avadhani, TK Madhura, "Innovative Approach for the Study of Tuning Circuit with Open Source Tools", ECS Transactions 107 (1), 1497, 2022.

11. TK Madhura, **BM Rajesh**, Chandra KumarK, Chandra, S Shubha,"Hirshfeld Surface Analysis, DFT Calculations and Molecular docking studies of 2-Amino-N-(2-Fluorophenyl)-4, 5, 6, 7-Tetrahydro-1-Benzothiophene-3-Carboxamide",ECS Transactions 107 (1), 17113, 2022.
12. DN Avadhani, **BM Rajesh**, S Shubha, MK Sudha Kamth"Critical Thinking in Model Based Simulation of Simple Harmonic Oscillator Using Scilab: Xcos", Critical Thinking for Gen Z - Multidisciplinary Approach 1, 156-163, 2021. Excel India Publishers; https://anyflip.com/lemlo/uclp/
13. **BM Rajesh,** M. Munvar Hussain, Shamantha Kumar, A. C. Vinayaka, T. Bhuvaneswara Babu. "Synthesis and crystal structure studies of 3,3-bis(methylthio)-1-(4-(trifluoromethyl) phenyl) prop-2-en-1-one and 3,3-bis(methylthio)-1-(thiophen-2-yl)prop-2-en-1-one derivatives", DN Avadhani, BM Rajesh, S Shubha, MKS Kamth of Applicable Chemistry 7 (1), 19-28, 2018.
14. N Rajeev, **BM Rajesh**, T Bhuvaneswara Babu, MP Sadashiva, "5-[(4-Bromobenzyl) oxy]-4-(4-methylbenzenesulfonyl)-1, 3-thiazole", IUCrData 2 (10), x171500, 2017.
15. K Chandra Kumar, S Balasaraswathy, **BM Rajesh**, Chandra, "2-Amino-N-(furan-2-ylmethyl)-5, 6-dihydro-4H-cyclopenta [b] thiophene-3-carboxamide", IUCrData 2 (8), x171211, 2017.
16. S Kumar, **BM Rajesh**, M Mahendra, BH Doreswamy, "2-(4-Methylphenyl)-2-oxoethyl 3, 4-dimethoxybenzoate", IUCrData 2 (2), x170183, 2017.
17. N El-Khatatneh, **BM Rajesh**, S Kumar, BH Doreswamy, M Mahendra, "(6-Fluoro-2-oxo-2H-chromen-4-yl) methyl diethylcarbamodithioate", IUCrData 2 (1), x162069, 2017.
18. Vinay Kumar K. S, Chandra, **Rajesh B. M**, Mahendra .M and Sadashiva M. P, "5-{[1- (2,4-Dichlorophenyl)-1H- 1,2,3-triazol- 4-yl]methyl}- 5H-dibenz[b,f]azepine", Acta Cryst. 2016, 1: x160221.
19. Chandra Kumar. K, Umesh. V, Madhura. T.K, **Rajesh. B.M**, Chandra, "Crystal structure of 2-amino- N-(2- fluorophenyl)-4,5,6,7- tetrahydro-1- Benzothiophene-3-carboxamide", Acta Cryst. E 71, o807–o808, 2015.
20. **B.M. Rajesh**, M.S. Chandrashekara, P. Nagaraja, A. Chandrashekara and L. Paramesh"Distribution of 226Ra and 222Rn in bore well and lake water of Mysore Taluk, Karnataka State, India" International Journal of Environmental Sciences, 4(4), pp 558-566, 2014
21. **B.M. Rajesh**, M.S. Chandrashekara, L. Paramesh, A. Chandrashekara and P. Nagaraja"Assessment of Ra-226 and Rn-222 concentration in ground and surface water in Mysore Taluk, Karnataka, India." Current Prospectives on Environmental Protection, pp 106-110,2013

22. K. M. Nagaraju, M. S. Chandrasekhar, K. S. Pruthvi Rani, **B. M. Rajesh**, L. Paramesh.“Radioactivity Measurements in the Environment of Chamaraja Nagar Area, India” Radiation Protection and Environment, 36(1), pp 10-13, 2013
23. **B.M. Rajesh**, M.S. Chandrashekara, L. Paramesh and P. Nagaraja “Studies on Radon concentration in aqueous samples at Mysore City, India.” Radiation Protection and Environment, 35(1), pp 9-13, 2012
24. M.S. Chandrashekara, **B.M. Rajesh** and L. Paramesh. “Studies on Radon at Mysore City, India”, AARST Proceedings, 62-70, 2011.
25. M.S. Chandrashekara, **B.M. Rajesh**, T.S. Shashikumar and L. Paramesh. “Variations of ion pair production rate and inhalation dose due to radon and its progeny at different locations in Mysore city India”, IASTA Bulletin, Vol.19(1&2), 283-288, 2010. (ISSN 0971-4570)
26. T.S. Shashikumar, M.S. Chandrashekara, N. Ragini, **B.M. Rajesh** and L. Paramesh. “Studies on variations of trace gases and particulate matters in Mysore City, India”. IASTA Bulletin,Vol.19 (1&2), 579-581, 2010. (ISSN 0971-4570)
27. Rajaram, Haritha and N, Harshitha and A Ram, Shweta, Madhu and S Shetty, Shraddha and Santoshi, Lalitha and TK, Madhura and **Rajesh BM**, "Molecular Docking Studies of 5-Amino Pyrazole Derivatives Against Protein Kinases as Drug Targets”, Proceedings of International Conference on Drug Discovery (ICDD), BIT, Hyderbad, 2020.

Workshop Organised:

01. KSTA sponsored five day online workshop on “Computational Physics for Higher Education” at RVCE during 09-13th August, 2021.

02. KSTA sponsored “ICT enabled Physics Experiments and Training on Thin Film solar cells” at RVCE during 22nd -27th October 2018.

03. FDP on Computational Science in Engineering, RVCE, 15-20, July 2019.

04. Faculty Development Programme on “RECENT ADVANCEMENT IN ENGINEERING PHYSICS” 2017

Invited Talks

1. Invited talk on ‘Computerized experiments with an open source tool expeyes for data acquisition and analysis at Govt. First grade college, Chikkaballapur, Karnataka on 08-02-2024.
2. Delivered a technical talk on the topic “Experiments using an open-source tool Exp Eyes” on 5th Jan 2024 at Vidyavardhaka College of Engineering, Mysore.
3. Resource person at a ‘training of KRPs of Andhra Pradesh in Organizing and Management of Science Labs from 20th to 22nd December 2023 at RIE, Mysore.

4. Resource person at a three day workshop -under ‘Development of a Compendium of some of the Innovative Teaching and Learning Practices in Science at the Secondary School Level of the Southern States-’from 2nd to 4th Feb 2023.
5. Invited talk on "Understanding Electrical Oscillation using Scilab" at Vidyavardhaka College of Engineering, Mysore on 17th March 2022.
6. Invited talk on "Physics learning through computational tools: an innovative approach" at KSTA sponsored lecture series in SJVP college, Harihar on 25-06-2022.
7. Invited lecture on “Elastic strings: Vertical oscillation using tracker video analyser" at Amity University, Noida on 24-03-2021.
8. Invited lecture on “Simple Harmonic Oscillation using Scilab" at Amity University, Noida on 30-03-2021.
9. Invited talk on "Open source tools for Science Experiments" at three day workshop on 'Creative learning and teaching using ICT for undergraduate science students and teaching professionals' held at Mount Carmel College, Bengaluru on 29-03-2021.
10. Invited talk on “The model-based simulation of Harmonic Oscillator using the Open-source tools.” on 8th July 2021 at Vidyavardhaka College of Engineering, Mysore.
11. IUCEE-RVCE Webinar on “Computer Interfaced Experiments using Open source Tools”
12. Hands on training given at FDP titled “Computational Science in Engineering” on 17-07-2019.
13. Talk on “Computer interfaced Science Experiments” at DST-INSPIRE program held at RVCE on 28-12-2019.

Research articles presented at International Symposiums

1. **Rajesh BM**, Shubha S, Shashank Holla, Pratap PV “Optical Fiber Communication using an Open Source expEyes-17 device”, ICTMTCI-4.0, East Point College of Engineering and Technology, Bengaluru, pp -22-25, 2020, ISBN 9788194773832.
2. Molecular Docking Studies of 5-Amino Pyrazole Derivatives Against Protein Kinases as Drug Targets”, Proceedings of International Conference on Drug Discovery (ICDD), BIT, Hyderbad, 2020.
3. Presented a Paper entitled *“Uranium concentrations in natural water around Mysore City, India”* in 13th International Congress of the International Radiation Protection Association held at **Glasgow, United Kingdom.**
4. Presented a Paper entitled *“Study of Radon Exhalation rate from soil and rock samples and Gamma Exposure rate in Chamaraja Nagar District, India”* in 13th International

Congress of the International Radiation Protection Association held at **Glasgow, United Kingdom**.

National Conferences/Symposiums

1. Nikhil Chandra BS, Veeradhi Rohit, Siddarth Sai Amruth Yetikuri, Akshay Narayan Pai, **Rajesh BM**, Shubha S, " Study of sound beats using Expeyes", Ideal International E-Publication, 76-81, 2021, ISBN 978-93-89817-45-4.
2. Vinay Varma B, Vishnu Sai Reddy, Shubham Jain , Sachin Goyal, **Rajesh BM**, Shubha S, "Study of frequency response of piezo disc by using expEYES", 82-85, 2021, ISBN 978-93-89817-45-4.
3. Madhura T.K, Chandra Kumar K, **Rajesh B.M,** Umesh V, Chandra “Crystal Structure of 2-amino-N-(2-fluorophenyl)-4, 5, 6, 7-tetrahydro-1-benzothiophene-3-carboxamide”. International Conference on “Recent trends in Environmental Science and Engineering” (RTESE 17).Page no.94-98[ISBN:978-9387405-83-7] held at APS College of Engineering on 16th December 2017.

Best Practices:

Developing ICT based experiments in the curriculum.