

Dr.A.RAMU

Assistant Professor and Head,
Department of Physics,
Ganesar College of Arts and Science,
Melaisivapuri-622403

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ACADEMIC PROFILE:

Year	Institution	Mode
Ph.D 2021	J.J.College of arts & science,Pudukkottai. (Bharathidasan University,Trichy)	Part Time
M.phil 2012	Algappa University,Karaikudi	Correspondence
B.Ed 2007	Sri Bharathi College of Education,Pudukkottai. (Bharathidasan University,Trichy)	Regular
M.Sc 2005	Algappa University,Karaikudi	Regular
B.Sc 2001	Vivekanantha College,Thiruvedagam (west) (Kamaraj University,Madurai)	Regular

Ph.D

“COMPUTATIONAL STUDIES, SPECTROSCOPIC, HYPER POLARIZABILITY, ELECTROSTATIC POTENTIAL SURFACE, NATURAL BOND ORBITAL ANALYSIS AND NON LINEAR OPTICAL MATERIALS OF SOME ORGANIC COMPOUNDS.”

FACULTY DEVELOPMENT PROGRAM

“Data Literacy with Tableau” from 24/07/2023 to 28/07/2023 at Bharathidasan Universtiy Trichirappalli, Conducted by Tamilnadu skill Development Corporation.

LIST OF PUBLICATION (7)

1. **A.Ramu**, M.K. Murali, M.karnan, M.Karunanithi. “Vibrational spectroscopic studies, HOMO - LUMO and First order hyperpolarizabilities analysis of 5, 6 dimethyl – 2, 4,- (1H, 3H) pyrimidine dione based on Density functional theory”. **Journal of Applied Science and Computations**. ISSN NO: 1076-5131. Volume 5, Issue 10, October/2018. P: 1003- 1016 (UGC SI No.41238). DOI: <http://j-asc.com/gallery/138-october-1132.pdf>.
2. **A.Ramu**, M.K. Murali, M.karnan, M.Karunanithi. “Vibrational Spectroscopic

Studies (FT-IR & FT-Raman), Molecular Structure and Frontier Molecular Orbital analysis On m-propyltoluene”. **Journal of Information and Computational Science**. ISSN: 1548-7741. Volume 9 Issue 11 – 2019.P: 1290- 1314. DOI: <http://www.joics.org/gallery/ics-1805.pdf>.

3. **A.Ramu**, M.K.Murali. “Theoretical Investigations of Molecular Structure, Vibrational Spectra and Mulliken Atomic Charge Analysis on 6-nitrobenzimidazole”. **Strad Research**. ISSN: 0039-2049. VOLUME 7, ISSUE 8, 2020. P: 287 -302. <https://doi.org/10.37896/sr7.8/028>.
4. A. Rajeswari, M.K. Murali, **A. Ramu** “Quantum mechanics calculation and Vibrational Spectra FT-IR and FT-Raman (theoretical, Experimental) studies of 5-Methyl-1H-Tetrazole (5MTZ)”. **Test Engineering and Management**, ISSN: 0193-4120, Page. NO. 139 – 156. September – October 2020.
5. A. Rajeswari, M.K. Murali, **A. Ramu**. “Non Linear Optical Properties, Optimized Structure, Global Reactivates and Mulliken Atomic Charge Studies on 5-Chloro-1-H-Tetrazole Based on Density Functional Theory with Vibrational Assignment”. **Test Engineering and Management**, ISSN: 0193-4120, Page. NO. 252 – 268. November – December 2020.
6. A. Rajeswari, M.K. Murali, **A. Ramu**. “Simulation of FT-IR and FT-Raman Spectra Based on quantum chemical Calculations, Vibrational Assignments, Hyperpolarizability, and HOMO-LUMO Analysis of 5(4 methyl phenyl) tetrazole (5MPTZ)”. **Indian Journal of natural science**. ISSN No: 0976-0997. Volume12, Issue 67, August/2021. P. 33597-33607.
7. A. Rajeswari, M.K. Murali, **A. Ramu**. “Vibration Spectra (theoretical Experimental) and Optimized structure, Frontier Molecular orbital, Mulliken Atomic Charge studies on Pentylentetrazole (PTZ) based on Density functional theory”. **Design Engineering**. ISSN No: 0011-9342. Issue 7, 2021. P. 10815-10830.

PAPERS PRESENTED IN NATIONAL / INTERNATIONAL CONFERENCE

1. Vibrational spectroscopic studies, HOMO - LUMO and First order hyperpolarizabilities analysis of 5, 6 dimethyl – 2, 4,- (1H, 3H) pyrimidine dione based on Density functional theory, **International Conference on Nanomaterials and Molecular Research at PG & Research Department of Physics, St. Joseph’s College of Arts & Science (Autonomous), Cuddalore on 8-9th December 2016**.
2. Vibrational Spectroscopic Studies (FT-IR & FT-Raman), Molecular Structure and Frontier Molecular Orbital analysis On m-propyltoluene, **International conference on Recent Advances in Applied Physics organized by Engineering Physics Section, Faculty of Engineering and Technology, Annamalai University on 21st**

– **22nd September 2017.**

3. FT-IR and FT-Raman Vibrational Studies, Molecular Geometry, NBO analysis, Frontier molecular orbitals, First order Hyper polarizability, and quantum chemical calculation on 2-ethyl imidazole, **National Level Seminar on Recent Advances in Material Characterization, National College (Autonomous), Tiruchirappalli on 02nd March 2018.**
4. Vibrational Studies, Molecular Geometry, NBO analysis, Frontier molecular orbitals, NLO based on DFT calculation on 2-methyl imidazole, **National Conference on New Vistas in Material Science, JJ College of Arts and Science (Autonomous), Pudukkottai on 8th & 9th March 2018.**
5. Frontier Molecular orbital analysis, Molecular structure, Vibrational spectroscopic studies (IR&Raman), Fuki function of m-propyltoluene, **International Conference on Recent Advances in Materials, National College (Autonomous), Tiruchirappalli on 22nd-23rd March 2018.**
6. Structural conformation and vibrational studies of 2-chloro 4-nitro toluene using quantum chemical calculation **International Conference on Recent Advances in Materials Science, National College (Autonomous), Tiruchirappalli on 04th-06th Feb 2019**

WORKSHOP

1. **National Workshop on Spectroscopic Techniques, Sathyabama Institute of Science and Technology, Chennai on 30th January – 1st February 2019.**
2. **TANSCHÉ Sponsored Workshop on “ Institutional Ranking Framework: Data and Documentations Perspectives”** Organized by the **Internal quality Assurance cell (IQAC) & UGC-Human Resource Development Centre, Bharathidasan Univarstiy Trichirappalli on 30 December 2022**
- 3.

BOOK PUBLISHED (2)

- ❖ **“INTRODUCTION TO ELECTROMAGNETIC THEORY AND THE PHYSICS OF CONDUCTING SOLIDS”.**
Scientific International Publishing House. ISBN. 978-93-5625-304-9.
- ❖ **“ATOMIC AND MOLECULAR PHYSICS”**
Alpha International Publication. ISBN.978-93-95405-14-0

PATENT (2)

- ❖ **“Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew”.**
Publication date: 17/6/2022. App No: 202241033431

- ❖ Nano-Thymoquinone (TQ) as High-Performance Drug Targeting Vehicle for Liver
Publication date: 23/06/2023. App No: 202341032842

EXTRA CURRICULAR ACTIVITIES

Activity	Institution	Year
NSS Program Officer	Ganesar College of Arts and Science, Melaisivapuri (Bharathidasan University, Trichy)	2021-2024
Anti Ragging Cell coordinator	Ganesar College of Arts and Science, Melaisivapuri (Bharathidasan University, Trichy)	2023-2024

PERSONAL PROFILE:

Name : RAMU.A
Father's Name : ALAGAPPAN.M.R
D.O.B : 24.10.1980
Gender : MALE
Community : DNC
Religion : HINDU
Nationality : INDIAN
Marital status : MARRIED
Language known : TAMIL, ENGLISH & SANSKRIT