

Dr. V. ARJUNAN - Profile

Name : **Dr. V. ARJUNAN**

Qualifications : M.Sc., M.Phil., M.Ed., P.G.D.C.A., Ph.D.,

Designation : ASSOCIATE PROFESSOR

Discipline : DEPARTMENT OF CHEMISTRY

Name of the Institution : ARIGNAR ANNA GOVERNMENT ARTS &
SCIENCE COLLEGE, KARAIKAL-609 605.

Date of Birth : 15-03-1964

Residential Address : MIG, D-26, Sudhanthira Ponvizha Nagar
Puducherry – 605 011.

Contact Number : 9442992223; 0413-2211111

Additional Diplomas/Certificate : P.G.D.C.A
acquired

Recognised Supervisor for Guiding Ph.D. : (i) Pondicherry University, Puducherry.
: (ii) PRIST University, Thanjavur.
: (iii) Bharathiar University, Coimbatore

Recognised Supervisor for Guiding M.Phil. : (i) Pondicherry University, Puducherry.
: (ii) Periar Univesity, Selam.
: (iii) Bharathidasan University, Thiruchirapalli.
: (iv) Alagappa University, Karaikudi.

Reviewer for the International/National Journals: (i) Spectrochemica Acta Part–A: Molecular
and Biomolecular Spectroscopy
(ii) Journal of Molecular Structure
(iii) European Journal of Chemistry
(iv) Molecules
(v) Physical Chemistry and Chemical Physics
(vi) Journal of Peptide Science
(vii) Vibrational Spectroscopy
(viii) South African Journal of Biotechnology
(ix) Indian Journal Pure & Applied Physics.

- (x) Molecular Simulation
- (xi) Chemistry Central Journal
- (xii) Scientific Research and Essays
- (xiii) Optics and Laser Technology
- (xiv) Journal of Agricultural and Food Chemistry (ACS)
- (xv) Journal of Iranian Chemical Society (springer)

Member in the Examination Board : (i) Pondicherry University, Puducherry.
 : (ii) PRIST University, Thanjavur.
 : (iii) University of Madras, Chennai.
 : (iv) PSG College of Arts & Science (Autonomous), Coimbatore.
 : (v) Kanchi Mamunivar Centre for Post-Graduate Studies (Autonomus), Puducherry.

Member in the Board of Studies in Chemistry: (i) A.V.V.M. Sri Pushpam College for the Academic Year 2009–10, 2010–11 (Autonomous), Poondi, Thanjavur Dt.

Member, Board of Studies in BS (Chemistry): (ii) Vel Tech University, Avadi, Chennai-62.

Member, Board of Studies in M.Sc (Chemistry): (ii) Thiruvalluvar University, Serkkadu, Vellore-632 115, for three Years 2014–17.

Bibliography appeared in the Marque's Who is Who in the World–2010

Number of Students guided for M.Phil : **21**
 Number of Students awarded Ph. D. : **8**
 Number of Students submitted Ph. D. Thesis: **8**
 Number of Students working for Ph. D. : **10**
 Number of Research papers published : **100**

Publication of Books : (1) S. Mohan, V. Arjunan, M. Selvarani, M. Kanchana Mala, "LASER PHYSICS – An Insight into Medical and Cosmetic Photonics", MJP Publishers, Chennai, 2012. ISBN No. 978–81–8094–157–3

(2) S. Mohan, V. Arjunan, Sujin P. Jose, M. Kanchana Mala,
“Principles of Materials Science”, MJP Publishers, Chennai, 2013.
ISBN No. 978–81–8094–167–2

(3) S. Mohan, V. Arjunan, Sujin P. Jose,
“Fiber Optics and Optoelectronic Devices” MJP Publishers, Chennai,
2014.
ISBN No. 978–81–8094–202–0

Publication of Papers in National/International Journals:

1. V. Arjunan, R. Anitha, M.K. Marchewka, S. Mohan, Haifeng Yang, “Conformational, structural, vibrational, electronic and quantum chemical investigations of cis-2-methoxycinnamic acid.”
J. Mol. Struct. **1080** (2015) 122-136.
2. V. Arjunan, M.K. Marchewka, Arushma Raj, R. Anitha, S. Mohan, “Structural and vibrational spectral investigations of melaminium glutarate monohydrate by FTIR, FT-Raman and DFT methods”.
Spectrochim. Acta **135A** (2015) 540-550.
3. V. Arjunan, R. Anitha, L. Devi, S. Mohan, Haifeng Yang, “Comprehensive quantum chemical and spectroscopic (FTIR, FT-Raman, ¹H, ¹³C NMR) investigations of (1,2-epoxyethyl)benzene and (1,2-epoxy-2-phenyl)propane”.
Spectrochim. Acta **135A** (2015) 120-136.
4. S. Mohan and V. Arjunan, “Density Functional Theory”.
Asian J Phys. 23 (2014) 1079-1081.
5. Sujin P. Jose, V. Arjunan, K. Sanghamitra and S. Mohan, “Lattice Dynamics and Normal Coordinate Analysis of HTSC GdBa₂Cu₃O₇”.
Asian J Phys. 23 (2014) 883-890.
6. T.K. Shabeer, V. Arjunan, E. Vinoth Kumar, “Synthesis, structure, biological properties and DFT investigations of 3,4-dihydropyrimidin-2(1H)-ones”.

- Asian J Phys. 23 (2014) 891-908.
7. V. Arjunan, R. Durgadevi, S. Thillai Govindaraja and S. Mohan, "Experimental and theoretical quantum chemical investigations of *2-cis-4-trans*-hexadiene and *2-trans-4-trans*-hexadiene".
Asian J Phys. 23 (2014) 915-932.
 8. V. Arjunan, Sujin P. Jose, R. Jothilakshmi and S. Mohan, "Phonon spectral studies of high temperature superconductor $\text{TmBa}_2\text{Cu}_3\text{O}_7$ ".
Asian J Phys. 23 (2014) 945-952.
 9. V. Arjunan, L. Devi, P. Remya, S. Senthilkumari and S. Mohan, "Experimental and theoretical quantum chemical investigations of trans-methylcrotonate".
Asian J Phys. 23 (2014) 959-972.
 10. V. Arjunan, Thirunarayanan, S. Thillai Govindaraja, R. Santhanam and S. Mohan, "Quantum chemical investigations of carbamoylazide and its deuterated derivative".
Asian J Phys. 23 (2014) 973-988.
 11. S. Vignesh, B. Karthikeyan, R. Udayabhaskar, V. Arjunan, M. Santhosh Gokul and M. Ashok, S. Narayana Kalkura, R. Arthur James, "Antimicrobial activity of biological green synthesized silver nanoparticles".
Asian J Phys. 23 (2014) 1025-1030.
 12. S. Mohan, V. Arjunan, Sujin P. Jose and Haifeng Yang, "Photonic in Biomedical Applications".
Asian Mat. Sci. Lett. 3 (2014) 51-80.
 13. S. Mohan, V. Arjunan and Sujin P. Jose, "Photonic in Biomedical Applications".
Asian Mat. Sci. Lett. 3 (2014) 1-50.

14. V. Arjunan, L. Devi, R. Subbalakshmi, T. Rani, and S. Mohan, "Synthesis, vibrational, NMR, quantum chemical and structure-activity relation studies of 2-hydroxy-4-methoxyacetophenone." Spectrochim. Acta **130A** (2014) 164-177.
15. V. Arjunan, P. Remya, U. Sathish, T. Rani, and S. Mohan, "Spectroscopic and density functional theory studies of *trans*-3-(*trans*-4-imidazolyl)acrylic acid" Spectrochim. Acta **129A** (2014) 466-477.
16. V. Arjunan, S. Thillai Govindaraja, Sujin P. Jose and S. Mohan, "DFT simulation, quantum chemical electronic structure, spectroscopic and structure-activity investigations of 2-benzothiazole acetonitrile". Spectrochim. Acta **128A** (2014) 22-36.
17. V. Arjunan, S. Senthilkumari, P. Ravindran and S. Mohan, "Synthesis, FTIR and FT-Raman spectral analysis and structure-activity relations of *N*-(4-bromophenyl)-2,2-dichloroacetamide by DFT studies". J. Mol. Struct. **1064** (2014) 15-26.
18. V. Arjunan, Arushma Raj, R. Anitha, S. Mohan, "A new look into the quantum chemical and spectroscopic investigations of 5-chloro-1-methyl-4-nitroimidazole". Spectrochim. Acta **125A** (2014) 160-174.
19. V. Arjunan, S. Thillai Govindaraja, P. Ravindran and S. Mohan, "Exploring the structure-activity relations of *N*-carbethoxyphthalimide by combining FTIR, FT-Raman and NMR spectroscopy with DFT electronic structure method." Spectrochim. Acta **120A** (2014) 473-488.
20. V. Arjunan, R. Santhanam, M.K. Marchewka, S. Mohan, "Comprehensive quantum chemical and spectroscopic (FTIR, FT-Raman, ^1H , ^{13}C NMR) investigations of *O*-desmethyltramadol hydrochloride an active metabolite in Tramadol – an analgesic drug". Spectrochim. Acta **122A** (2014) 315-330.

21. K. Carthigayan, V. Arjunan, R. Anitha, S. Periandy and S. Mohan “Spectroscopic and structural investigations of 4-bromomethyl-5-methyl-1,3-dioxol-2-one and 4,5-bis(bromomethyl)-1,3-dioxol-2-one by quantum chemical simulations – A comparative study.”
J. Mol. Struct. **1056-1057** (2014) 38-51.
22. V. Arjunan, Arushma Raj, P. Ravindran, S. Mohan, “Structure-activity relations of 2-(methylthio)benzimidazole by FTIR, FT-Raman, NMR, DFT and conceptual DFT methods.”
Spectrochim. Acta **118A** (2014) 951-965.
23. V. Arjunan, P. Remya, L. Devi, S. Senthilkumari and S. Mohan, “Fourier transform infrared, FT-Raman spectral analysis and quantum chemical studies on 4-aminobenzoic acid and 4-cyanobenzoic acid”.
Asian J. Phys. **22** (2013) 77-90.
24. V. Arjunan, P. Remya, R. Anitha, Arushma Raj and S. Mohan, “Spectroscopic and DFT studies of 2,3-dihydro-4-methylthiophene-1,1-dioxide and 2,3-dihydrothiophene-1,1-dioxide”.
Asian J. Phys. **22** (2013) 91-104.
25. A. Jayaprakash, V. Arjunan and S. Mohan, “Vibrational Spectroscopic, Electronic Structure, Natural Bond Orbital Analysis and Quantum Chemical Investigations of 4-methoxy-4-methyl-2-pentanone.”
Proc. Indian Natn. Sci. Acad. **79** (2013) 481-492.
26. V. Arjunan, M. Kalaivani, S. Senthilkumari and S. Mohan, “Vibrational, NMR and quantum chemical investigations of acetoacetanilide, 2-chloroacetoacetanilide and 2-methylacetoacetanilide”.
Spectrochim. Acta **115A** (2013) 154-174.
27. V. Arjunan, L. Devi, P. Remya, S. Mohan, “A new look into conformational, vibrational and electronic structure analysis of 3,4-dimethoxybenzotrile.”

Spectrochim. Acta **113A** (2013) 302–313.

28. V. Arjunan, M. Kalaivani, M.K. Marchewka and S. Mohan, “Crystal structure, vibrational and DFT simulation studies of melaminium dihydrogen phosphite monohydrate.”
J. Mol. Struct. **1045** (2013) 160–170.
29. V. Arjunan, Arushma Raj, S. Subramanian, S. Mohan, “Vibrational, electronic and quantum chemical studies of 1,2,4–benzenetricarboxylic–1,2–anhydride”.
Spectrochim. Acta **110A** (2013) 141–150.
30. V. Arjunan, R. Santhanam, S. Subramanian and S. Mohan, “Primidone – an antiepileptic drug – characterization by quantum chemical and spectroscopic (FTIR, FT–Raman, ^1H , ^{13}C NMR and UV–Visible) investigations”.
Spectrochim. Acta **109A** (2013) 282–297.
31. V. Arjunan, S. Sakiladevi, M.K. Marchewka and S. Mohan, “FTIR, FT–Raman, FT–NMR and Quantum chemical investigations of 3–acetylcoumarin”
Spectrochim. Acta **109A** (2013) 79–89.
32. V. Arjunan, A. Jayaprakash, K. Carthigayan, S. Periandy and S. Mohan, “Conformational, structural, vibrational and quantum chemical analysis on 4–aminobenzohydrazide and 4–hydroxybenzohydrazide – A comparative study”.
Spectrochim. Acta **108A** (2013) 100–114.
33. V. Arjunan, M. Kalaivani, M.K. Marchewka and S. Mohan, “Crystal Structure and Vibrational Spectral Investigations of Melaminium Maleate Monohydrate by FTIR, FT–Raman and Quantum Chemical Calculations”
Spectrochim. Acta **107A** (2013) 90–101.
34. V. Arjunan, S. Thillai Govindaraja, A. Jayaprakash and S. Mohan “Structural, vibrational and nuclear magnetic resonance investigations of 4–bromoisoquinoline by experimental and theoretical DFT methods”.
Spectrochim. Acta **107A** (2013) 62–71.

35. V. Arjunan, R. Santhanam, S. Sakiladevi, M.K. Marchewka and S. Mohan, "Synthesis and characterization of an anticoagulant 4-hydroxy-1-thiocoumarin by FTIR, FT-Raman, NMR, DFT, NBO and HOMO-LUMO analysis." *J. Mol. Struct.* **1037** (2013) 305–316.
36. V. Arjunan, S. Thillai Govindaraja, S. Subramanian and S. Mohan, "Conformational analysis, spectroscopic and quantum chemical investigations of 2-bromo-3-nitroacetophenone". *J. Mol. Struct.* **1037** (2013) 73–84.
37. V. Arjunan, Arushma Raj, C.V. Mythili and S. Mohan, "Vibrational, electronic and quantum chemical studies of 5-benzimidazole carboxylic acid". *J. Mol. Struct.* **1036** (2013) 326–340.
38. V. Arjunan, R. Santhanam, T. Rani, H. Rosi, and S. Mohan, "Conformational, vibrational, NMR and DFT studies of *N*-methylacetanilide". *Spectrochim. Acta* **104A** (2013) 182–196.
39. V. Arjunan, Arushma Raj, R. Santhanam, M.K. Marchewka and S. Mohan, Structural, "Vibrational, Electronic Investigations and Quantum Chemical studies of 2-amino-4-methoxybenzothiazole". *Spectrochim. Acta* **102A** (2013) 327–340.
40. R. Udayabhaskar, R.V Mangalaraja, D. Manikandan, V. Arjunan, B. Karthikeyan, "Room temperature synthesis and optical studies on Ag and Au mixed nanocomposite Polyvinylpyrrolidone polymer films". *Spectrochim. Acta* **99A** (2012) 69–73.
41. V. Arjunan, K. Carthigayan, S. Periandy, K. Balamurugan and S. Mohan, "Quantum chemical studies and vibrational analysis of 4-acetyl benzonitrile, 4-formyl benzonitrile and 4-hydroxy benzonitrile – A comparative study". *Spectrochim. Acta* **98A** (2012) 158–169.

42. V. Arjunan, A. Jayaprakash, R. Santhanam, M.K. Marchewka and S. Mohan, Electronic structure simulations of 2,6-dimethyl-2,5-heptadien-4-one by FTIR, FT-Raman, NMR, UV-Visible, NBO and density functional theory".
Mol. Simulation 39 (2013) 185-198.
Mol. Simulation (2012) 1-14.
doi/abs/10.1080/08927022.2012.713106.
43. V. Arjunan, Mariusz K. Marchewka, A. Pietraszko and M. Kalaivani, "X-Ray Diffraction, Vibrational and Quantum Chemical Investigations of 2-methyl-4-nitroanilinium trichloroacetate trichloroacetic acid".
Spectrochim. Acta **97A** (2012) 625-638.
44. V. Arjunan, M.K. Marchewka and M. Kalaivani, "Synthesis, vibrational and quantum chemical investigations of hydrogen bonded complex betaine dihydrogen selenite".
Spectrochim. Acta **96A** (2012) 744-758.
45. V. Arjunan, P. Ravindran, R. Santhanam, Arushma Raj and S. Mohan, "A comparative study on vibrational, conformational and electronic structure of 1,2-dimethyl-5-nitroimidazole and 2-methyl-5-nitroimidazole".
Spectrochim. Acta **97A** (2012) 176-188.
46. V. Arjunan, P.S. Balamourougane, M. Kalaivani, Arushma Raj and S. Mohan, "Experimental and theoretical quantum chemical investigations of 8-hydroxy-5-nitroquinoline".
Spectrochim. Acta **96A** (2012) 506-516.
47. V. Arjunan, P.S. Balamourougane, R. Santhanam and S. Mohan, "FTIR, FT-Raman and quantum chemical investigations of 4,5-dimethyl-1,3-dioxol-2-one".
J. Mol. Struct. **1024** (2012) 54-64.
48. V. Arjunan, A. Jayaprakash, R. Santhanam, S. Thillai Govindaraja and S. Mohan, "Electronic structure investigations of 4-methyl-3-penten-2-one by UV-Visible and NMR spectral studies and Natural bond orbital analysis by DFT calculations".
J. Mol. Struct. **1022** (2012) 37-48.

49. V. Arjunan, T. Rani, R. Santhanam, and S. Mohan, "Structural characteristics and harmonic vibrational analysis of the stable conformer of 2,3-epoxypropanol by quantum chemical methods".
Spectrochim. Acta **96A** (2012) 24–34.
50. V. Arjunan, A. Jayaprakash, R. Santhanam, D. Sridhar and S. Mohan, "Vibrational spectroscopic and DFT studies of *cis*- and *trans*-1,3-pentadiene".
Asian J. Phys. **21** (2012) 83–94.
51. A. Jayaprakash, V. Arjunan and S. Mohan, "Density functional theory studies on molecular structure of 4-methoxy-4-methyl-2-pentanone".
Asian J. Phys. **21** (2012) 59–70.
52. A. Jayaprakash, V. Arjunan, K. Carthigayan, D. Sridhar, S. Mohan, "Quantum chemical studies on the molecular structural, thermodynamic and vibrational properties of 2,3-dimethyl-1,3-butadiene".
Asian J. Phys. **21** (2012) 71–82.
53. V. Arjunan, P.S. Balamourougane, S. Thillai Govindaraja and S. Mohan, "A comparative study on vibrational, conformational and electronic structure of 2-(hydroxymethyl)pyridine and 3-(hydroxymethyl)pyridine".
J. Mol. Struct. **1018** (2012) 156–170.
54. V. Arjunan, I. Saravanan, M.K. Marchewka and S. Mohan, "A comparative study on vibrational, conformational and electronic structure of 2-chloro-4-methyl-3-nitropyridine and 2-chloro-6-methylpyridine".
Spectrochim. Acta **92A** (2012) 305–317.
55. V. Arjunan, P. Ravindran, K. Balakrishnan, R. Santhanam and S. Mohan, "combined spectroscopic and DFT studies on 2-chloro-4-nitrotoluene and 4-chloro-2-nitrotoluene".
J. Mol. Struct. **1016** (2012) 82–96.

56. V. Arjunan, I. Saravanan, C.V. Mythili, M. Kalaivani and S. Mohan, "A comparative study on vibrational, conformational and electronic Structure of α,α' -diol-*o*-xylene, α,α' -diol-*m*-xylene and α,α' -diol-*p*-xylene".
Spectrochim. Acta **92A** (2012) 1–15.
57. V. Arjunan, I. Saravanan, C.V. Mythili, K. Balakrishnan and S. Mohan, "A comparative study on vibrational, conformational and electronic Structure of α,α' -dibromo-*o*-xylene, α,α' -dibromo-*m*-xylene and α,α' -dibromo-*p*-xylene".
Spectrochim. Acta **91A** (2012) 166–177.
58. V. Arjunan, S. Thillai Govindaraja, A. Srilakshmi, C.V. Mythili and S. Mohan, "Conformational analysis, vibrational and electronic structure investigations of 4-hydroxy-3-methoxybenzotrile".
Asian J. Spectrosc. (SPEC. ISS) (2012) 87–102.
59. V. Arjunan, M. Kalaivani, S. Sakiladevi, K. Carthigayan and S. Mohan, "Experimental, Quantum Chemical and Natural Bond Orbital Investigations of N-(2,4-dimethylphenyl)-2,2-dichloroacetamide and N-(3,5-dimethylphenyl)-2,2-dichloroacetamide".
Spectrochim. Acta **88A** (2012) 192–209.
60. V. Arjunan, S. Sakiladevi, T. Rani, C.V. Mythili and S. Mohan, "FTIR, FT-Raman, FT-NMR, UV-Visible and Quantum Chemical Investigations of 2-amino-4-methylbenzothiazole".
Spectrochim. Acta **88A** (2012) 220–231.
61. V. Arjunan, Arushma Raj, S. Sakiladevi, K. Carthigayan and S. Mohan, "A comparative Spectroscopic, Electronic structure and Chemical shift investigations of *o*-Chloronitrobenzene, *p*-Chloronitrobenzene and *m*-Chloronitrobenzene".
J. Mol. Struct. **1007** (2012) 122–135.
62. V. Arjunan, P.S. Balamourougane, C.V. Mythili, S. Mohan and V. Nandhakumar, "Vibrational, Nuclear Magnetic Resonance and Electronic spectra, Quantum Chemical Investigations of 2-amino-6-fluorobenzothiazole".
J. Mol. Struct. **1006** (2011) 247–258.

63. V. Arjunan, S. Thillai Govindaraja, S. Sakiladevi, M. Kalaivani and S. Mohan, "Spectroscopic, Electronic structure and Natural bond orbital analysis of *o*-Fluoronitrobenzene and *p*-Fluoronitrobenzene : A comparative study".
Spectrochim. Acta **84A** (2011) 196–209.
64. A. Jayaprakash, V. Arjunan, Sujin P. Jose and S. Mohan, "Vibrational and electronic investigations, thermodynamic parameters, HOMO and LUMO analysis on Crotonaldehyde by *ab initio* and DFT methods".
Spectrochim. Acta **83A** (2011) 411–419.
65. V. Arjunan, P.S. Balamourougane, C.V. Mythili and S. Mohan, "Experimental spectroscopic (FTIR, FT-Raman, FT-NMR, UV-Visible) and DFT studies of 2-amino-5-chlorobenzoxazole".
J. Mol. Struct. **1003** (2011) 92–102.
66. A. Jayaprakash, V. Arjunan and S. Mohan, "Vibrational spectroscopic, electronic and quantum chemical investigations on 2,3-hexadiene".
Spectrochim. Acta **81A** (2011) 620–630.
67. V. Arjunan, M. Kalaivani, P. Ravindran and S. Mohan, "Structural, vibrational and quantum chemical investigations on 5-chloro-2-hydroxybenzamide and 5-chloro-2-hydroxybenzoic acid".
Spectrochim. Acta A **79A** (2011) 1886–1895.
68. V. Arjunan, T. Rani, K. Santhanalakshmi and S. Mohan, "A combined experimental and theoretical quantum chemical studies on 4-morpholinecarboxaldehyde".
Spectrochim. Acta A **79A** (2011) 1395–1401.
69. V. Arjunan, T. Rani, K. Santhanalakshmi and S. Mohan, "Spectroscopic and quantum chemical studies on 4-acryloyl morpholine".
Spectrochim. Acta A **79A** (2011) 1386–1394.

70. V. Arjunan, T. Rani, and S. Mohan, "Spectroscopic and quantum chemical electronic structure investigations of 2-(trifluoromethyl)aniline and 3-(trifluoromethyl)aniline". *J. Mol. Struct.* **994** (2011) 179–193.
71. V. Arjunan, T. Rani, C.V. Mythili and S. Mohan, "Synthesis, FTIR, FT-Raman, Uv-visible, *ab initio* and DFT studies on benzohydrazide" *Spectrochim. Acta* **79A** (2011) 486–496.
72. V. Arjunan, C.V. Mythili, K. Mageswari, and S. Mohan, "Experimental and theoretical investigations of benzamide oxime". *Spectrochim. Acta* **79A** (2011) 245–253.
73. V. Arjunan, T. Rani, C.V. Mythili and S. Mohan, Synthesis, "FTIR, FT-Raman and Quantum Chemical Investigations of *N*-(3-methylphenyl)-2,2-dichloroacetamide". *Eur. J. Chem.* **2** (2011) 70–76.
74. V. Arjunan, A. Suja Ravi Isaac, T. Rani, C.V. Mythili and S. Mohan, "Density functional theory studies on vibrational and electronic spectra of 2-chloro-6-methoxypyridine". *Spectrochim. Acta* **78A** (2011) 1625–1632.
75. V. Arjunan, T. Rani, L. Varalakshmi, S. Mohan and F. Tedlameleket, "DFT and *ab initio* quantum chemical studies on *p*-cyanobenzoic acid". *Spectrochim. Acta* **78A** (2011) 1449–1454.
76. V. Arjunan, P. Ravindran, T. Rani, S. Mohan, "FTIR, FT-Raman, FT-NMR, *ab initio* and DFT electronic structure investigation on 8-chloroquinoline and 8-nitroquinoline". *J. Mol. Struct.* **988** (2011) 91–101.
77. V. Arjunan, I. saravanan, P. Ravindran and S. Mohan, "FTIR, FT-Raman, *ab initio* and density functional studies on 4-methyl-1,3-dioxolan-2-one and 4,5-dichloro-1,3-dioxolan-2-one". *Spectrochim. Acta* **77A** (2010) 28–35.

78. V. Arjunan, S. Mohan, P.S. Balamourougane and P. Ravindran, "Quantum Chemical and Spectroscopic Investigations of 5-aminoquinoline".
Spectrochim. Acta **74A** (2009) 1215–1223.
79. V. Arjunan, P.S. Balamourougane, I. Saravanan and S. Mohan, "Investigation of the structural and harmonic vibrational properties of 2-nitro-, 4-nitro- and 5-nitro-m-xylene by ab initio and density functional theory."
Spectrochim. Acta **74A** (2009) 798–807.
80. V. Arjunan, I. Saravanan, P. Ravindran and S. Mohan, "Structural, vibrational and DFT studies on 2-chloro-1H-isoindole-1,3(2H)-dione and 2-methyl-1H-isoindole-1,3(2H)-dione."
Spectrochim. Acta **74A** (2009) 642–649.
81. V. Arjunan, P. Ravindran, K. Subhalakshmi and S. Mohan, "Synthesis, structural, vibrational and quantum chemical investigations of *N*-(2-methylphenyl)-2,2-dichloroacetamide and *N*-(4-methylphenyl)-2,2-dichloroacetamide".
Spectrochim. Acta **74A** (2009) 607–616.
82. V. Arjunan, I. Saravanan, P. Ravindran, S. Mohan, "*Ab initio*, density functional theory and structural studies of 4-amino-2-methylquinoline".
Spectrochim. Acta **74A** (2009) 375–384.
83. V. Arjunan, "Structural, Vibrational and Quantum Chemical Studies of 4-methyl-1,3-dioxolan-2-one and 4,5-dichloro-1,3-dioxolan-2-one".
Mystique **2** (2009).
84. V. Arjunan, S. Mohan, P. Ravindran, C.V. Mythili, "Vibrational Spectroscopic Investigations, *ab initio* and DFT Studies on 7-bromo-5-chloro-8-hydroxyquinoline".
Spectrochim. Acta **72A** (2009) 783–788.
85. V. Arjunan and S. Mohan, "Fourier transform infrared and FT-Raman spectra, assignment, *ab initio*, DFT and normal co-ordinate analysis of 2-chloro-4-methylaniline and 2-chloro-6-methylaniline."

- Spectrochimica. Acta **72A** (2009) 436–444.
86. V. Arjunan and S. Mohan, “Fourier transform infrared and FT–Raman Spectral Analysis and *ab initio* calculations for 4–chloro–2–methylaniline and 4–chloro–3–methylaniline.” J. Mol. Struct. **892** (2008) 289–299.
87. V. Arjunan, N. Puviarasan, S. Mohan, P. Murugesan, “Fourier transform Infrared and Raman Spectral Assignment and Analysis of 7–amino–4–trifluoromethylcoumarin”. Spectrochim. Acta **67A** (2007) 1290–1296.
88. V. Arjunan, N. Puviarasan and S. Mohan, “Fourier transform Infrared and Raman Spectral Investigations of 5–aminoindole”. Spectrochim. Acta **64A** (2006) 233–239.
89. V. Arjunan, S. Mohan, S. Subramanian and B. Thimme Gowda, “Synthesis, Fourier transform infrared and Raman spectra, assignments and analysis of *N*–(phenyl)– and *N*–(chloro substituted phenyl)–2,2–dichloroacetamides.” Spectrochim. Acta **60A** (2004) 1141–1159.
90. V. Arjunan, S. Subramanian, S. Mohan, “FTIR and FTR Spectral investigations of 2–Amino–6–Bromo–3–Formylchromone. Spectrochim. Acta **60A** (2004) 995–1000.
91. N. Puviarasan, V. Arjunan and S. Mohan, “FTIR and FT–Raman Spectral Investigation on 4–Aminoquinoline and 5–Aminoquinoline. Turk. J. Chem. **28** (2004) 53–65.
92. V. Arjunan, S. Subramanian, S. Mohan, “Vibrational Spectroscopic studies on trans–1,4–polychloroprene. Turk. J. Chem. **27** (2003) 423–431.
93. N. Puviarasan, V. Arjunan and S. Mohan, “FTIR and FT–Raman studies on 3–Aminophthalhydrazide and *N*–Aminophthalimide. Turk. J. Chem. **26** (2002) 323–333.

94. V. Arjunan, S. Subramanian and S. Mohan, "Investigations of the odours emitted from chemical plants."

Asian J. Chem. **13** (2001) 1317–1320.

95. S. Mohan, K.S.P. Durairaj, V. Arjunan, B. Karthikeyan and E. James Jabaseelan Samuel, "Hair Calcium and cardiovascular disease."

Asian J. Chem. **13** (2001) 1312–1316.

96. V. Arjunan, S. Subramanian and S. Mohan, "Fourier transform infrared and Raman spectral analysis of trans-1,4-polyisoprene".

Spectrochim. Acta **57A** (2001) 2547–2554.

SPECIAL ASSIGNMENTS:

1. **Convener - Anti-Ragging Committee and anti-ragging squad, Arignar Anna Govt. Arts & Science College, Karaikal.**

- in the year 2016–17.

Nodal Officer-RUSA- Arignar Anna Govt. Arts & Science College, Karaikal.

Participation in Seminar/Symposium/Conference/workshop : 30

Papers presented in Seminar/ Symposium/Conferences : 63

Ph.D Thesis Adjudicated : 10