



1. Name: **Dr. A. Subashini**
2. Designation: **Assistant Professor Senior**
3. Educational Qualification: **M.Sc., M.Phil., SET, GATE, Ph.D.**

Sl.no.	Degree	University/ College	Year of passing
1.	B.Sc.	Bharathidasan University	1999
2.	M.Sc.	Bharathidasan University	2001
3.	M.Phil.	Madurai Kamaraj University	2003
4.	Ph.D.	Bharathidasan University	2008
5.	SLET	Bharathiar University	2006
6.		GATE	2006

4. Experience:  
 UG: **9** years 7 months  
 PG: **9** years 7 months  
 M.Phil.: **4** years 7 months
5. Area of Specialization:  
**Bio-inorganic Chemistry, Crystallography, Co-ordination Chemistry & DFT studies.**
6. Guided: M. Phil.: **1** (Guiding)  
 Ph.D.: **1** (Guiding)
7. Research Papers Presented: **11**

Faculty	Title of the seminar	Title of the Paper	Level	Sponsor	Date & venue
<b>A.Subashini,</b> Ebenezer Samuel, J.S. Nirmal Ram, P. Thomas Muthiah, D.E. Lynch.	National Seminar on Current Trends in Chemistry (Ctric-2008)	Crystal structure of 2- amino-4,6-dimethyl pyrimidinium 3,5- dinitrobenzoate dihydrate	National	UGC	18-19, 2008, Cochin University of Science and Technology, Cochin.
<b>A. Subashini,</b> P.Thomas Muthiah, G. Bocelli, A. Cantoni	National Seminar on Current Trends in Chemistry (Ctric-2008)	A polymeric cadmium(II) complex of sulfamethoxazole (4-[5- methylisoxazol-3- yl)aminosulfonyl] aniline) $C_{10}H_{12}N_3O_3S \cdot 0.5CdCl_4 \cdot H_2O$	National	UGC	18-19, 2008, Cochin University of Science and Technology, Cochin.
<b>A. Subashini,</b>	37 <sup>th</sup> National	Synthesis and crystal	National	UGC	February 6-8,

P.ThomasMuthiah, G. Bocelli, A. Cantoni	seminar on crystallography,	structure of a new schiff base derived from 4-amino- N-(5-methyl-3-isoxazolyl) benzene sulfonamide (Sulfamethoxazole) and 2- hydroxybenzaldehyde(salicy laldehyde).			2008, Department of Physics, Jadavpur University, Kolkata.
<b>A. Subashini,</b> Ebenezer Samuel, J.S. Nirmal Ram, P. ThomasMuthiah, D.E. Lynch, G. Bocelli, A. Cantoni	International conference on Advanced Materials	Supramolecular Architectures in Two polymorphs of 2,6- diaminopyrimidin-4(3H)- one monohydrate	International	UGC	Feb' 18-21, 2008, School of chemical Sciences, Mahatma Gandthi University, Kottayam, India.
<b>A. Subashini</b>	International conference on Cosmo Chemistry	Cosmic crystals-formation & detection	International	UGC	Seethalakshmi Ramaswami College, Trichy-2, 14.09.2011
<b>A. Subashini,</b> M. Saranya	International seminar on Advances in new materials	Synthesis, spectral, thermal and antimicrobial investigation of some new Co (II), Ni (II) and Cu (II) Schiff base complexes	International	UGC	University of Madras, Chennai – 25 20.06.2014 & 21.06.2014
<b>A. Subashini,</b> M. Saranya.	National seminar on Recent Trends in X-ray Crystallography	Synthesis, crystal structure and characterisation of (2- [(2-chloro-phenylimino)- methyl]phenol)	National	UGC	Seethalakshmi Ramaswami College, Trichy-2, 08.10.2014 and 09.10.2014.
Dr.A.Subashini A.G. Anitha	Recent Advancements in materials (NLS- RAM:17) UGC	Synthesis, crystal structure, analysis, electronic properties and thermodynamic studies of 4- bromo-N'-(2,4-dihydroxy- benzlidene)benzohyrazide using vibrational spectroscopy and DFT calculations	National	UGC	February 15, Department of Physics, Jamal Mohamed College, Trichy-20
<b>A. Subashini,</b> M. Saranya.	21 <sup>st</sup> National seminar on crystal growth and applications(NSC	Supramolecular architectures in Cobalt (II)thiocyanate complex of 2-amino-4,6-dimethyl	National	UGC	March 6,7 & 8, Department of physics, National

	GA-2017) UGC sponsored(IACG)	pyrimidine			College, Trichy-1 in association with Indian Association for crystal growth
<b>A. Subashini, M. Saranya.</b>	BRNS National Conference on Nanomaterials	Supramolecular architectures in cadmium(II)thiocyanate complex of 2-amino-4,6-dimethylpyrimidine	National	UGC	20.7.2017 to 21.7.2017 Department of Physics, Aringar Anna Government Arts College, Nammakal
<b>A. Subashini, M. Saranya.</b>	International Conference on Advanced Materials Science & Technology	Synthesis ,crystal structures and characterization of 2-(naphthlen-2-yliminomethyl)-4-nitrophenol and( 3-brombenzylidene)-naphthalene-2-yl-amine	International	-	17.8.2017 to 19.8.2017 Department of Physics Bannari Amman Institute of Technology, Satyamangalam, Erode

## 8. Research Papers Published: 21

- **A. SUBASHINI;** P. T. MUTHIAH; G. BOCELLI ; A.CANTONI , Catena-Poly[bis(sulfamethoxazolium)[[trichloridocadm(II)] - $\mu$ -chlorido] monohydrate], Acta Cryst., E64, 2008, m250-m251, ISSN: 1600-5368, I.F-0.355
- **A. SUBASHINI,** P. THOMAS MUTHIAH, D. E. LYNCH, 2-amino-4,6-dimethyl pyrimidinium 3,5-dinitrobenzoate dihydrate, Acta Cryst. , E64,2008, o426, ISSN: 1600-5368, I.F-0.355
- **A. SUBASHINI,** P. THOMAS MUTHIAH, G.BOCELLI, A.CANTONI, Synthesis and crystal structure of a new Schiff base derived from 4-amino-N-(5-methyl-3-isoxazolyl) benzene sulfonamide (Sulfamethoxazole) and 2-hydroxy benzaldehyde(salicylaldehyde), J Chem Crystallogr, Vol 39, 2009, 112-116. ISSN: 1074-1542, I.F-0.64.

- K. THANIGAIMANI, **A. SUBASHINI**, P. T.MUTHIAH, D. E. LYNCH, R.J. BUTCHER,Pyrimethaminium picrate dimethyl sulfoxide solvate. ActaCryst.,C65, 2009, o42-o45, ISSN: 1600-5368,I.F-0.75.
- **A. SUBASHINI**, P. T. MUTHIAH, G. BOCELLI, A. CANTONI, Trimethoprim cinnmate 1.52 hydrate, J. Chem. Crystallography, Vol.41, 2011, 976 – 979, ISSN: 1074-1542, I.F-0.64.
- **A. SUBASHINI**, C. ARUNAGIRI& M. ARIVAZHAGAN,Vibrational spectroscopic, hyperpolarisability, HOMO, LUMO, NBO, Mulliken charges and structure determination of 2-bromo-4-chloro toluene, SpectrochimicaActa Part A: Molecular and Biomolecular spectroscopy,A 79, 2011, 1747-1756, ISSN: 1386-1425,2.163.
- M. ARIVAZHAGAN, C. ARUNAGIRI&**A.SUBASHINI**, Quantum chemical determination of molecular geometries and interpretation of FT- IR and FT-Raman spectra for 3,4-dinitro toluene, Indian Journal of Pure and applied Physics, Vol.51, (2013) 191-201,ISSN: 0975-1041(online), ISSN:0091-5596(print), IF-0.80.
- C.ARUNAGIRI,**A.SUBASHINI**,M.SARANYA&P.THOMASMUTHIAH, Synthesis and crystal structure of a new Schiff base 2-(naphthalene-2-yliminomethyl) phenol, Elixir.Org.Chem.,Vol 58, (2013), 14767- 14770, ISSN 2229-712X.
- C. ARUNAGIRI, **A. SUBASHINI**, M.SARANYA&P. THOMAS MUTHIAH, Molecular Structure, Optimized Geometry, HOMO-LUMO Energy and Mulliken Charges of a New Schiff Base 2-(Naphthalen-2-yliminomethyl) Phenol by *ab Initio* and Density Functional Theory Calculations, Ind.J.Applied Research,8, Vol.3 (2013) 78- 81, ISSN - 2249-555X.
- C. ARUNAGIRI, M. ARIVAZHAGAN,**A. SUBASHINI**& N.MARUDHAIVEERAN, Theoretical and experimental calculations, Mulliken charges and thermodynamic properties of 4-chloro-2-nitroanisole, SpectrochimicaActa Part A 131 (2014) 647– 656, ISSN: 1386-1425, I.F- 2.163.
- C.ARUNAGIRI, **A. SUBASHINI**, M. SARANYA&P.THOMASMUTHIAH, K. THANIGAIMANI& I. ABDUL RAZAK, Synthesis, crystal structure and theoretical studies of a Schiff base 2-[4-hydroxybenzylidene]-amino naphthalene, SpectrochimicaActa Part A 135, (2015) 307– 316, ISSN: 1386-1425, I.F-2.163.

- M. SARANYA, **A. SUBASHINI**, C. ARUNAGIRI, P. THOMAS MUTHIAH, Synthesis, Spectral, Thermal and Antimicrobial Investigation of Some New Co(II), Ni(II) and Cu(II) Schiff Base Complexes, **International Journal of Innovative Research in Science & Engineering 2 (1)** (ICAN 2014) 69-73, ISSN 2347- 3207.
- M. SARANYA, **A. SUBASHINI**, C. ARUNAGIRI & P.THOMASMUTHIAH, Crystal structure of 2-[(2-chlorophenyl)imino]methyl]phenol.ActaCryst. (2015). E71, o48, ISSN: 1600-5368, I.F-0.355.
- N. JEEVA JASMINE, P. THOMAS MUTHIAH, C. ARUNAGIRI, **A. SUBASHINI**, Vibrational spectra (experimental and theoretical), molecular structure, natural bond orbital, HOMO–LUMO energy, Mulliken charge and thermodynamic analysis of N'- hydroxy-pyrimidine-2-carboximidamide by DFT approach.SpectrochimicaActa Part A 144, (2015) 215–225, ISSN: 1386-1425, I.F -2.163.
- K. THANIGAIMANI, S. ARSHAD, N. C. KHALIB, I.A. RAZAK, C. ARUNAGIRI, **A. SUBASHINI**, S.F. SULAIMAN, N. S. HASHIM, K.L. OOI, A new chalcone structure of (*E*)-1-(4-Bromophenyl)-3-(naphthalen-2-yl)prop-2-en-1-one: Synthesis, structural characterizations, quantum chemical investigations and biological evaluations. SpectrochimicaActa Part A 149 (2015) 90–102, ISSN: 1386-1425, 2.163.
- M. SARANYA, **A. SUBASHINI**, C. ARUNAGIRI & P.THOMASMUTHIAH, Crystal structure of 3-acetoxy-2-methylbenzoic acid, ActaCryst. (2015). E71, o474, ISSN: 1600-5368, I.F-0.355.
- **A. SUBASHINI** & C. ARUNAGIRI, Cosmic Crystals- Formation and detection, “Cosmo Chemistry”with ISBN No.: 978-81-909490-6-4, 2013, 56-61.
- M. SARANYA, **A. SUBASHINI**, C. ARUNAGIRI &P.THOMAS MUTHIAH, Synthesis, crystal structure and characterisation of (2-[(2-chloro-phenylimino)-methyl]phenol), “Recent trends in X-ray crystallography” with ISBN No.: 978-81-909490-0-2, 146-156.
- N. JEEVA JASMINE, P. THOMAS MUTHIAH, C. ARUNAGIRI, **A. SUBASHINI**, Synthesis, X-ray structure analysis, thermodynamic and electronic properties of 4-acetomido benzaldehyde using vibrational spectroscopy and DFT, Journal of molecular structure, (1130), 2017,244-250. ISSN: 0022-2860. I.F.1.92.
- M. SARANYA, **A. SUBASHINI**, C. ARUNAGIRI, Synthesis and crystal structure of inorganic hybrids of Cu(II) complexes of malonic acid, Indian Journal of Applied research, Volume : 7 , Issue : 6 , June 2017, 36-38. ISSN - 2249-555X. I.F. 0.8215.

- K Karthikeyan, C. ARUNAGIRI , A. SUBASHINI, A.G. Anitha and S. Selvakumar. Experimental and Theoretical Investigation of the Molecular and Electronic Structure of 3-Acetoxy-2-Methylbenzoic Acid using Quantum Chemical Computational Calculations, Journal of Chemical and Pharmaceutical Research, 2017, 9(6):262-280, ISSN : 0975-7384, I.F. 0.75.

9. Books published (if any):

Title of the seminar	Title of the Paper	Level	Sponsor	Date & venue
Cosmo chemistry	Cosmic crystals-formation & detection	International	UGC	14.09.2011 Seethalakshmi Ramaswami College, Tiruchirappalli-2.
Recent trends in X-ray crystallography	Synthesis, crystal structure and characterisation of (2-[(2-chlorophenylimino)-methyl]phenol)	National	UGC	08.10.2014 & 09.10.2014 Seethalakshmi Ramaswami College, Tiruchirappalli-2.

10. Research Projects: 1

Minor project

P. investigator/ co-investigator	Title	Sponsor	Duration	Amount
P. investigator	Clinical and crystal studies on metal complexes of piperidones	UGC	2011-2013	1,80,000

11. External experts: (board members, chairman, research external examiners, selection committee members, Inspection committee member, etc )

\* **Question setter** for Semester Examinations for various colleges.

\* UG Examiner-Bharathidasan University central valuation.

\* Doctoral committee member: **for 3 students**

1. Ms.M. Mohana, BDU.

2. Mr.R. SwintonDarios, BDU.

3. Mrs. Nagalakshmi, Govt. Arts College, Karur.

\* Editorship of Journals: Reviewer of (ScienceDirect- Elsevier) Journal of Molecular Structure from 2015 onwards.

\*External examiner –M.Phil. (2016-2017)

## 12. Other positions held in the college:

- The member of College Disciplinary committee in 2011-2012 and 2014-2015.
  - 2008-2009 : NAAC coordinator.
  - 2009- 2010 : College website & internet committee member.
  - 2009-2013 :IQAC Working committee member.
  - 2010- 2013 : IQAC- 2<sup>nd</sup> tier-Steering committee member.
  - 2012-2013 : College Union Vice-President.
  - 2014- 2015 : College Admission committee member.
  - 2008- 2016 (March): NAAC working committee member.
  - 2017-2018: Students monitoring committee member.
  - Vice President in chemistry “Space and Sputnik”association in the years 2008-2009 and 2014-2015.
  - PG Examiner-Seethalakhmi Ramaswami College.
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