GENERAL INFORMATION AND ACADEMIC BACKGROUND

1.	**Name**	**S. ISRAEL**
2.	**Father's Name/Mother's Name**	A. Samuel Selvaraj
3.	**Date and place of Birth**	21/05/1968 Madurai
4.	**Religion and community**	Christian (CSI, DM&R), Cathedral Parish, Madurai BC
5.	**Current Designation**	Associate Professor in Physics
6	**Date of Joining the present Institution**	June, 2001 at The American College, Madurai
7.	**Permanent address**	Anbu Manai, 2/492, Bagath Singh Nagar 7th street, Kadachanendal, Madurai - 625107
8.	**Address for communication**	Anbu Manai, 2/492, Bagath Singh Nagar 7th street, Kadachanendal, Madurai - 625107

9. Academic Qualifications

Exam Passed	Name of the Board / University	% of marks obtained	Division / Class / Grade	Subject	Year of Passing
SSLC	Tamil Nadu State Board	68%	I class	General	1983
H.Sc	Tamil Nadu State Board	61%	I class	Science	1985
B.Sc	Madurai Kamaraj University, Madurai	68%	I class	Physics	1988
M.Sc	Madurai Kamaraj University, Madurai	77%	I class with Distinction	Physics	1990
M.Phil.	Madurai Kamaraj University, Madurai	70%	I class	Physics	1991
Ph.D	Madurai Kamaraj University, Madurai	Commended		Physics	2005

10. Appointments held prior to joining this institution:-

Designation	Institution	Period		Period in Years	Grade
		From	To		
Lecturer in Physics	NMSSVN College, Madurai	July 1992	Oct 1995	3 yrs & 3 months	Management
Assistant Professor in Physics	Christ Church College, Kanpur (UP)	October 1995	June 2001	5 yrs & 9 months	UGC
Lecturer in Physics	The American college, Madurai	July 2001	Nov 2004	3 yrs & 4 months	Management
FDP Substitute Lecturer in Physics	The American college, Madurai	Dec 2004	March 2007	2 yrs & 3 months	UGC
Lecturer in Physics	The American college, Madurai	April 2007	Sep 2007	6 months	Management

11. Post held after appointment at this Institution:

Designation	Department	Date of Actual Joining		Grade
		From	To	
Assistant Professor	Physics	13 Sept 2007	22 Nov 2019	6000-8000
Associate Professor	Physics	23 Nov 2019	Till date	9000

12. Period of teaching Experience

P.G. Classes (in Years and months)	33 years
U.G. Classes (In Years and months)	31 Years

13. Research Experience excluding years spent in M. Phil. / Ph. D.
(In Years and months)

20 years

14. Fields of Specialization under the Subject / Discipline

(a) Solid State Physics/ X-ray Crystallography

(b) Quantum Mechanics

15. UGC recognized Orientation / Refresher Courses attended:

S.No	Nature of the course / Summer School	Place	Duration	Organizing Agency
1	**Orientation Course**	Academic Staff college, Madurai Kamaraj University	09/02/2011 to 08/03/2011	UGC
2	**Refresher Course in Physics**	Academic Staff college, Madurai Kamaraj University	16/11/2012 to 06/12/2012	UGC
3	**Summer Research Fellowship**	CECRI, Karaikudi	April to June 2014	Indian Academy of Sciences, IISc, Bangalore
4	**Refresher Course in Basic Sciences**	HRDC, Madurai Kamaraj University, Madurai	02/11/2016 to 22/11/2016	HRDC
5	**Short term course in Introduction to Solid State Physics**	NPTEL, MHRD, SWAYAM Indian Institute of Technology, Kanpur	Jan 2019 to April 2019	NPTEL, MHRD
6	**Inter disciplinary Refresher Course Research Methodology**	MOOCS, MHRD Ramanujam College, University of Delhi	20/07/2021 to 03/08/2021	MHRD
7	**Refresher Course in Physics**	HRDC, Pondicherry University, Pondicherry	04/08/2021 to 17/08/2021	HRDC

16. Co – curricular, extension, professional development related activities

S. No.	Type of Activity	Period
(i)	**Extension, Co-curricular & Field based activities**	
(a)	Associate NCC(Navy) Officer at the rank of Lt. Commander(Navy)	17 years (2003-2020)
(b)	Served as Sports Committee member for 20 years	22 years
(c)	Designed a syllabus for NCC that was adopted all over India	2014
(ii)		
(d)	Elected Faculty secretary	2019 - 2020
(e)	Additional Dean of Self-financed courses	2012 - 2020
(f)	President for UG Physics Association	2016 and 2017
(g)	Contributed Intra-departmental students competitions	2017
(h)	Member of NAAC criterion committee	2018-2020
(i)	Elected member of Governing Council	2019-2021
(j)	Additional Dean of Curriculum development and research	2020 – 2023
(k)	Controller of Examinations	Dec 2023 – till date
(iii)		
(l)	Doctoral committee member for 6 Ph.D. students at Kalasalingam University, Kalaiyar Koil.	
(m)	Doctoral committee member for 3 PhD Student at Madurai Kamaraj University	
(n)	External Examiner for 1 Ph.D. student at Anna University, Chennai	
(o)	Board of Studies member in Madura College, Madurai	
(p)	UG and PG degree external Examiner at various colleges	

(q)	Passed English Proficiency test by British Council and Scored a grade C1 (>70%)
(r)	Completed a course on GAUSSIAN 09
(s)	Attended a prestigious "Asian Charge Density Workshop" Conducted by Indian Institute of Science, Bangalore
(t)	Attended an Indo-French workshop on " Strongly Correlated materials" conducted by Bharathidasan University, Trichy
(u)	Attended a "Basic Computer Programming" course by Dr.Richard P. Riesz at The American College, Madurai

17. Publications in the peer reviewed / UGC-CARE listed journals

Number of Research publications (journals)* : 63
(* Separate sheet is attached to show the details)

18. Book Publications

Books published as author or as editor : 4

S.N	Title with page no.	Type of Book & Authorship	Publisher & ISBN No.	Date of Publication
1	Nematic Phases in Cuprates Using t-J model	Academic **Editor: S. Israel**	Notion Press, India ISBN-13 : 979-8889591580	1 30 Jan. 2023
2	Charge Derived Properties of Molecules	Academic **Author: S. Israel**	Notion Press, India ISBN-13 : 979-8889757375	1 17 Feb. 2023
3	Drug Molecules: A Charge Density Perspective	Academic **Author: S. Israel**	Notion Press, India ISBN-13 : 979-8890027436	1 3 April 2023
4	Oxides, Flourides and Oxyflourides	Academic **Author: S. Israel**	Notion Press, India ISBN-13 979- : 8893635706	1 03 May 2024

19. Publications in conferences/Seminars/workshops*

S. No	Conferences/workshops	Full papers	National	International	Total
1	Conferences	3	31	17	48

(* Separate sheet is attached to show the details)

20. Ph.D./MPhil/MSc projects Guidance*

Degree	Number Enrolled	Thesis Submitted	Degree Awarded
Ph.D	6	5	4
M. Phil	36	36	36
M.Sc	44	44	42

(* Separate sheet is attached to show the details)

21. Area of Research

X-ray Crystallography (Charge Density Distribution studies)

22. Other Research Recognition (*only national and international*)

(i) Completed project/Consultancies

S.N	Title	Agency	Period	Grant (Rs. Lakhs)
1	Quantifying electrostatic interactions in Pharmaceutical solid systems using charge density route	**University Grants Commision(UGC),** New Delhi. F.No. 41-848 / 2012, Dated : 23/07/2012	**3 years** from 11/10/2012 to 10/10/2015	Rs. 12,01,800/-
2	**Research Grant from The American college, Madurai**		**2003-2004**	Rs. 6000
3	**Research Grant from The American college, Madurai**		**2004-2005**	Rs. 3500
4	**Research Grant from The American college, Madurai**		**2005-2006**	Rs. 4000

(ii) Served as a Reviewer in International Journals

Completed Assignments – 94

S. No	Position/ Member	Journal	Publisher	Completed Assignments
	Editorial Board	**Journal of Material Science: Materials in Electronics**	**Springer - Nature**	**2018-2020**
1	**Reviewer Board**	Journal of Material Science: Materials in Electronics	**Springer - Nature**	**60**
2	**Reviewer Board**	Material science in semiconductor processing	**Elsevier**	**10**
3	**Reviewer Board**	Materials Chemistry and Physics	**Elsevier**	**7**
4	**Reviewer Board**	Results in Physics	**Elsevier**	**5**
5	**Reviewer Board**	Physica B: Condensed Matter Physics	**Elsevier**	**2**
6	**Reviewer Board**	Materials today: Proceedings	**Elsevier**	**2**
7	**Reviewer Board**	Journal of Material Science & Engineering	**Springer - Nature**	**1**
8	**Reviewer Board**	European Journal of Chemistry	**Atlanta Publishing House LLC, USA-**	**1**
9	**Reviewer Board**	Luminescence: The Journal of Biological and Chemical luminescence	**John Wiley & Sons**	**2**
10	**Reviewer Board**	Journal of The Australian Ceramic society	**Springer - Nature**	**3**
11	**Reviewer Board**	American Chemical Society: Applied Nano Materials	**ACS Paragon Plus publications**	**1**

(iii) Honoured as Doctoral committee member

S. No.	Committee	Institution	No. of Students
1	Doctoral Committee	Kalasalingam University, Krishnan Koil, Tamil Nadu	6
2	Doctoral Committee	Madurai Kamaraj University, Madurai	3
3	Ph.D. Examiner (PhD thesis evaluation and Viva – voce)	Anna University, Chennai	1

(iv) Invited as Resource person for Lectures/Seminars/Conferences

S. No	Type	Number of lectures
1	Resource person	3
2	Invited lectures	5

23. Research Contribution (100 words)

My research is fundamentally rooted in the study of solid systems and free molecules in their natural states. To explore this, we utilize the powerful and widely adopted technique of X-ray crystallography, which reveals intricate details about molecular and atomic structures, as well as their bonding with neighboring atoms. This method provides a wealth of information about the selected solid—specifically, the nature of bonding and its implications for the system's behavior under external perturbations such as electric fields, magnetic fields, electromagnetic radiation, doping, temperature, pressure, and more. The charge density distribution obtained from X-ray crystallographic experiments offers deep insights into these characteristics. We are fortunate to employ this technique to investigate various phenomena that can be interpreted through charge densities and their redistribution under external influences.

This research has led to 63 publications in peer-reviewed journals and has supported 7 students in their PhDs in Physics.

24. Reference ID's

Website :http://israelsamuel.weebly.com/
Researchgate :https://www.researchgate.net/profile/Israel_Samuel
Mendeley :https://www.mendeley.com/profiles/israel-samuel/
INFLIBNET : https://americancollege.irins.org/profile/100277
ORCID :https://orcid.org/0000-0002-6294-351X
Scopus :https://www.scopus.com/authid/detail.uri?authorId=7006115124
Scopus Author ID: 7006115124
Web of Science ResearcherID: F-7843-2010

Details of Research and Academic Contributions

For item 17. - Published Papers in peer reviewed Journals

S.No	Title with pagenumber	Journal	ISSN No.	Whether peer reviewed Impact factor, if any	No. of Co-authors	Whether you are themain author/ correspo nding author
1	Crystal growth of Piperazine and a dual approach to electron density mapping and bonding insights. **Vol. 36(2025) 359**	**Journal of Materials Science: Materials in Electronics (Springer – Nature)**	0957-4522	Yes I.F. = 2.8	3	No
2	Structure, Charge density and Hirshfeld Surface Analysis of proton transfer complex 2-Amino-4-methylpyridinium 2-(3-methylphenyl)-acetate. **Vol.69, Issue 4, 604 – 617 (2022)**	**Journal of the Chinese Chemical Society (Wiley)**	2192-6549	Yes I.F. = 1.6	3	Yes
3	Three dimensional atomistic-scale electron density distribution analysis of $ZnWO_4$: Sm phosphors,**Vol 249, (2022) 168169**	**Optik : International Journal for Light and Electron Optics (Elsevier)**	0030-4026	Yes I.F. = 3.1	5	No
4	Charge density of difluorides from synchrotron diffraction data and investigation of bonding in low valent binary fluorides.**Vol. 259 (2021) 123990**	**Materials Chemistry and Physics (Elsevier)**	0254-0584	Yes I.F. = 4.3	3	Yes
5	Hirshfeld Surface, Charge Density and	**Computational and**	2210-271X	Yes	3	Yes

	Site Selectivity Studies of 1-(2-Methyl-5-nitro-1H-imidazol-1-yl)-acetone. **Vol. 1191 (2020) 113044**	**Theoretical Chemistry (Elsevier)**		I.F. = 3.0		
6	A theoretical study of chemical bonding and topological and electrostatic properties of the anti-leprosy drug dapsone. **Vol.26(2020)138**	**Journal of Molecular Modeling (Springer)**	1610-2940	Yes I.F. = 2.1	6	Yes
7	Experimental validation of bifurcated hydrogen bond of 2,5-lutidinium bromanilate and its charge density distribution. V**ol 74 (2020) 2689 – 2699**	**Chemical Papers (Springer)**	0366-6352	Yes I.F. = 2.1	3	Yes
8	Aceclofenac and interactions analysis in the crystal and COX protein active site. **Vol.1205 (2020) 127600**	**Journal of Molecular Structure (Elsevier)**	0022-2860	Yes I.F. = 4.0	5	Yes
9	X-ray derived experimental charge density distribution in two isostructural oxyfluorotellurates, $FeTeO_3F$ and $GaTeO_3F$. **Vol.579 (2020) 411896**	**Physica B: Condensed matter Physics (Elsevier)**	0921-4526	Yes I.F. = 2.8	2	Yes
10	Comprehensive study on the topological properties of 5-Amino-2-Methyl Benzene Sulfonamide involving inter and intra molecular hydrogen bonds. **Vol.1201 (2020) 127208**	**Journal of Molecular Structure (Elsevier)**	0022-2860	Yes I.F. = 4.0	3	Yes
11	Origin of ferroelectricity in orthorhombic $LuFeO_3$. **Vol. 100, 195116 (2019)**	**Physical Review B (American Physical Society)**	2469-9950	Yes I.F. = 3.2	15	No
12	Analysis of oxygen bonding with metals of different oxidation states from experimental charge density distribution. **Vol. 555 (2019) 21–31**	**Physica B: Condensed matter Physics (Elsevier)**	0921-4526	Yes I.F. = 2.8	5	Yes

13	Enhanced photoluminescence and charge density studies of novel $(Sm_{1-x}Gd_x)_2O_3$ nanophosphors for WLED applications. **Vol. (2018) 29:19368–19381**	**Journal of Materials Science: Materials in Electronics (Springer)**	0957-4522	Yes I.F. = 2.8	3	Yes
14	Investigation of topological and electrostatic properties of anti-inflammatory drug aceclofenac. **Vol.73(a2) (2017)C698-C698**	**Acta Crystallographica Section A: Foundations and Advances (Wiley)**	2053-2733	Yes I.F. = 1.9	3	Yes
15	A novel synthesis of orange-red emitting $(Sm_{1-x}Ce_x)_2O_3$ nanophosphors for UV LEDs. **Vol. 13 (2018) 51–58**	**Nano-Structures & Nano - Objects (Elsevier)**	2352-507X	Yes I.F. = 9.2	6	Yes
16	Crystal structures of 2-methylpyridinium hydrogen 2,3-bis(4-methylbenzoyloxy)succinate and bis-[4-methylpyridinium hydrogen 2,3-bis(4- methylbenzoyloxy)succinate] pentahydrate. **Vol. E73 (2017)1483–1487**	**Acta Crystallographica Section E: Crystallographic Communications (Wiley)**	2056-9890	Yes I.F. = 0.5	2	Yes
17	Understanding electronic and magnetic transitions in ball milled diluted magnetic semiconductor $Si_{1-x}Ni_x$ through experimental electron density distribution. **Vol. 728 (2017) 887-895**	**Journal of Alloys and Compounds (Elsevier)**	0925-8388	Yes I.F. = 5.8	3	No
18	Experimental charge density distribution and its correlation to structural and optical properties of Sm^{3+} doped Nd_2O_3 nanophosphors. **Vol. 35 (2017) 1102 -1114**	**Journal of Rare Earths (Elsevier)**	1002-0721	Yes I.F. = 5.2	7	Yes

19	Testing the ability of rhodanine and 2, 4-thiazolidinedione to interact with the human pancreatic alpha-amylase: electron-density descriptors complement molecular docking, QM,and QM/MM dynamics calculations. Vol. **23(2017) 252**	**Journal of Molecular Modeling (Springer)**	1610-2940	Yes I.F. = 2.1	5	Yes
20	2-Amino-4-methylpyridinium 4-methoxybenzoate dehydrate. **Vol. 2 (2017) x170649.**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
21	2-Amino-3-methylpyridinium hydrogen phthalate. **Vol.2, (2017). x170422**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	4	Yes
22	Charge density analysis of Metformin/HCl, a biguanidean anti-hyperglycemic agent. **Vol. B73, (2017) 10-22**	**Acta Crystallographica Section B: Structural Science, Crystal Engineering And Material (Wiley)**	2052-5206	Yes I.F. = 1.3	5	Yes
23	High Resolution Synchrotron Diffraction Study on Charge Density Distribution of Ampicillin Trihydrate: A Correlation between DFT and Multipole Models. **Vol. 30, (2017)1**	**Chinese Journal of Chemical Physics (IOP Science, Thomson Reuters)**	1674-0068	Yes I.F. = 1.2	4	Yes
24	2-Amino-4-methylpyridinium 2-hydroxybenzoate **Vol.1,Part 4 (2016) x161443**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	2	Yes
25	2-(4-Nitrophenyl)acetate 2-amino-4-methylpyridin-1-ium. **Vol.1,Part 4 (2016)x161433**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
26	2-Amino-4-methylpyridinium 4-hydroxybenzoate.	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes

	Vol.1,Part 4 (2016)x161425					
27	2-Amino-4-methylpyridinium 4-methylbenzoate. **Vol.1,Part 4 (2016)x161411**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
28	2-Amino-3-methylpyridinium 3,4-dimethoxybenzoate. **Vol.1,Part 4 (2016)x161332**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
29	Investigation on van der Waals epitaxy gap in isostructural semiconducting germanium Tellurides: $HfGeTe_4$ and $ZrGeTe_4$. **Vol. 54 (2016) 668–677**	**Chinese journal of Physics (Elsevier)**	0577-9073	Yes I.F. = 4.6	2	Yes
30	Bis(2-amino-6-methylpyridinium) 3-nitrobenzene-1,2-dicarboxylate **Vol.1,Part 4 (2016)x161233**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
31	2-Amino-4-methylpyridinium 2-(4-nitrophenyl)-acetate **Vol.1,Part 4 (2016)x161203**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
32	2-Amino-3-methylpyridinium 4-methoxybenzoate **Vol.1,Part 4 (2016)x161126**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
33	2-Methylpyridinium 2-carboxy-6-nitrobenzoate **Vol.1,Part 4 (2016)x161104**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
34	2-Amino-4-methylpyridinium 2-(3-methylphenyl)-acetate **Vol.1,Part 4 (2016)x161098**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
35	3-Methylpyridinium 4-nitrobenzoate–4-nitrobenzoic acid(1/1) **Vol.1,Part 4 (2016)x160979**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes

36	X-ray derived experimental charge density distribution in GaF_3 and VF_3 solid systems. **Vol. 496(2016)74–81**	**Physica B: Condensed matter Physics (Elsevier)**	0921-4526	Yes I.F. = 2.8	4	Yes
37	Piperazin-1-ium 4-aminobenzoate monohydrate **Vol.1,Part 4 (2016) x160819**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	4	Yes
38	2-Methylpyridinium 2-carboxybenzoate–benzene-1,2-dicarboxylic acid (2/1) **Vol.1,Part 4 (2016) x160817**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	4	Yes
39	2-Amino-6-methylpyridinium 2-hydroxybenzoate **Vol.1,Part 4 (2016) x160747**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
40	4-Aminobenzoic acid–quinoline (1/1) **Vol.1,Part 4 (2016) x160604**	**IUCr Data, Data reports (Wiley)**	2414-3146	Yes I.F. = 0.3	3	Yes
41	Structure and stability of a silicon cluster on sequential doping with carbon atoms. **Vol. 76 (2016)173–180**	**Physica E: Low-dimensional Systems and Nanostructures (Elsevier)**	1386-9477	Yes I.F. = 2.9	3	No
42	Structural, magnetic and charge-related properties of nano-sized cerium manganese oxide, a dilute magnetic oxide semiconductor. **Vol. 17 (2014) 186–193**	**Materials Science in Semiconductor Processing (Elsevier)**	1369-8001	Yes I.F. = 4.2	4	Yes
43	The analysis on the rearrangement of charge density distribution in response to magnetic behavior in Mn doped SnO_2 nanoparticles. **Vol.407 (2012) 302**	**Physica B: Condensed matter physics (Elsevier)**	0921-4526	Yes I.F. = 2.8	4	Yes
44	Analysis on insulator-metal transition	**Bulletin of Material**	0973-7669	Yes	4	Yes

	in Yttrium doped LSMO from electron density distribution **Vol.35.No.1 (2012) 111**	**science (Springer)**		I.F. = 1.9		
45	Localized ferromagnetic charge ordering through charge density analysis in nano sized diluted magnetic semiconductor Co^{2+}:ZnO. **Vol. 405 (2010) 1763–176**	**Physica B: Condensed matter Physics (Elsevier)**	0921-4526	Yes I.F. = 2.8	4	No
46	Analysis on experimental valence charge density in Germanium at RT and 200 K. **Vol. 70 (2009) 1185–1194**	**Journal of Physics and Chemistry of Solids (Elsevier)**	0022-3697	Yes I.F. = 4.3	3	Yes
47	Growth of novel diluted magnetic semiconducting material $Ge_{1-x}Mn_x$ and X-ray characterization by Maximum Entropy Method (MEM) and Pair Distribution Function (PDF). **Vol.311 (2009) 1110–1116**	**Journal of Crystal Growth (Elsevier)**	0022-0248	Yes I.F. = 1.7	2	No
48	X-ray analysis of charge density distribution in GaP at 296 and 200K using Multipole and MEM models. **Vol. 47, 3(2009) 378-400**	**Chinese Journal of Physics (Elsevier)**	0577-9073	Yes I.F. = 4.6	3	Yes
49	Electron density distribution in Si and Ge using multipole, maximum entropy method and pair distribution function. **Vol. 70, 4,(2008)**	**Pramana (Springer)**	0973-7111	Yes I.F. = 1.9	2	No
50	Probabilistic Electron Density Distribution in CdTe at 200 K and 300 K. **Vol. 3, (2006) 41**	**Crystal Research Technology (Wiley- VCH)**	0232-1300	Yes I.F. = 1.5	5	No
51	Electron density distribution and	**Bulletin of Material**	0973-7669	Yes	3	No

	bonding in ZnSe and PbSe using maximum entropy method (MEM) **Vol. 29, No.2, (2006)107-114**	**science (Springer)**		I.F. = 1.9		
52	Bonding in ZnTe at RT, 200 and 100 K Revealed by Entropy Maximized Electron Density Distribution. **Vol. 363/1-4 (2005)166-177**	**Physica B: Condensed matter Physics (Elsevier)**	0921-4526	Yes I.F. = 2.8	2	No
53	Bonding in Fluorite Compound CaF_2 Using MEM**Vol.352/1-4(2004)220-226**	**Physica B: Condensed matter Physics (Elsevier)**	0921-4526	Yes I.F. = 2.8	1	No
54	Electronic Structure of InP at RT, 200K and 100K. **Vol.349, (2004) 390-400**	**Physica B: Condensed matter Physics (Elsevier)**	0921-4526	Yes I.F. = 2.8	2	Yes
55	An investigation on the bonding in MgO, CaO, SrO and BaO from the MEM electron density distributions **Vol.64, (2003) 879-886**	**Journal of Physics and Chemistry of Solids (Elsevier)**	0022-3697	Yes I.F. = 4.3	3	Yes
56	Electronic Charge Distribution in the Intermetallic Compound MnHg **Vol. 37, Issue 12, (2002)1310-1317**	**Crystal Research Technology (Wiley- VCH)**	0232-1300	Yes I.F. = 1.5	4	No
57	High Resolution Electron Density Mapping for LiF and NaF by Maximum Entropy Method (MEM)**Vol. 64/1, (2002) 43-49**	**Journal of Physics and Chemistry of Solids (Elsevier)**	0022-3697	Yes I.F. = 4.3	3	Yes
58	X-ray structure of $BaTiO_3$-Missed Opportunities **Vol.B56, (2000) 918-919**	**Acta Crystallographica Section B: Structural Science, Crystal Engineering And Materials (Wiley)**	2052-5206	Yes I.F. = 1.3	3	No
59	Charge transfer in GaP and InP	**Physica Status Solidi. B**	1521-3951	Yes	3	No

	Vol.194, no.2, (1996) 435-41	**(Wiley)**		I.F. = 1.5		
60	Charge transfer in ZnSe **Vol.31, no.1, (1996),K6-8**	**Crystal Research Technology (Wiley- VCH)**	0232-1300	Yes I.F. = 1.5	3	No
61	Debye-Waller factors in Na_xC60 **Vol.30, no.3, (1995)K37-9**	**Crystal Research Technology (Wiley- VCH)**	0232-1300	Yes I.F. = 1.5	3	No
62	f'' of silicon from linear absorption measurements **Vol.30, no.1, (1995)K1-3**	**Crystal Research Technology (Wiley- VCH)**	0232-1300	Yes I.F. = 1.5	3	No
63	Photoluminescence study of $(Sm_{0.95}\ Ce_{0.05})_2O_3$ nanoparticles for LED applications, **2162 (1) (2019) 020116**	**American Institute of Physics(AIP) Conference Proceedings**	0094-243X	Yes I. F. = 0.189	3	Yes
64	Molecular structure, vibrational spectroscopic and site selectivity studies in 5-amino-3-methyl-1,2-oxazole-4-carbonitrile using DFT technique. **Vol.2, December 2014, pp. 35-39.**	**Journal of Research in Science**	-	Yes	4	Yes
65	Elucidation of reactivity descriptors for 2-mercaptobenzoic acid using Density functional Theory approach. **Vol.2, December 2014, pp. 25-30.**	**Journal of Research in Science**	-	Yes	4	Yes

For item No. 19. (i) Full papers in Conference Proceedings

S.N	Title with page number	Details of conference Publications	ISSN/ ISBN No.	No. of Co-authors and Date of publication	Whether you are the main author/ corresponding author
1	Structure And Site Selectivity Studies of Non Steroidal Anti Inflammatory Drug Ibuprofen using DFT Technique	International conference on innovation and sustainable development of science, social science, management and technology(ISDSSMT- 19), DMI-St. Eugene University, Lusaka, Zambia, South- Central Africa	ISBN: 978-81-940502-3-0	2 (2019)	Yes
2	X-Ray Derived Experimental Charge Density Distribution in Transition Metal Oxyfluorotellurate:$GaTeO_3F$	International conference on innovation and sustainable development of science, social science, management and technology(ISDSSMT- 19), DMI-St. Eugene University, Lusaka, Zambia, South- Central Africa	ISBN: 978-81-940502-3-0	2 (2019)	Yes
3	Ab-initio studies of L-Alanine organic molecule. **Page: 20-25**	National Conference on Advanced Materials Science – 2015, Jerusalem College of Engineering, Chennai	ISBN 978-81-89843-73-1	3 (2015)	Yes
4	Molecular Structure, Population Analysis, Vibrational Spectroscopic and Chemical Reactivity studies of Nicotinohydrazide using DFT approach. **Page: 26-32**	National Conference on Advanced Materials Science – 2015, Jerusalem College of Engineering, Chennai	ISBN 978-81-89843-73-1	4 (2015)	Yes
5	Investigation on reactivity descriptors of 2,5-Lutidinium Bromanilate using DFT approach. **Page: 33-38**	National Conference on Advanced Materials Science – 2015, Jerusalem College of Engineering, Chennai	ISBN 978-81-89843-73-1	3 (2015)	Yes
6	X-ray Analysis of the Charge	National Conference on Advanced	ISBN	3	Yes

	Density Distribution in GaF_3.**Page: 39-44**	Materials Science – 2015, Jerusalem College of Engineering, Chennai	978-81-89843-73-1	(2015)	

(ii) Papers presented in Conferences, Seminars, Workshops, Symposia

S.N.	Title of the paper presented	Title of Conference/ Seminar etc	Date(s) of the event	Organizer	Level
1	Analysis of phase transition mechanism in Tin mono-selenide from experimental charge density	International conference in role of Physics in modern technologies, ICRPMT-2025	2025	The American college, Madurai	International
2	Investigation on the temperature dependent structural transition of Bi: $HoFe_3(BO_3)_4$	International conference in role of Physics in modern technologies, ICRPMT-2025	2025	The American college, Madurai	International
3	Synthesis and study on perturbation effects of Sn^{2+} ions in KCl crystals	Proceeding of Two Days International Conferences on SMART MATERIALS AND BIO-MOLECULES (ICSMB'23)	2023	The American college, Madurai	International
4	Photoluminescence study of $(Sm_{0.95}Ce_{0.05})_2O_3$ nanoparticles for LED applications	AIP Conference Proceedings	2019	American Institute of Physics, USA	International
5	Structure And Site Selectivity Studies of Non Steroidal Anti Inflammatory Drug Ibuprofen using DFT Technique	International Conference on Recent Advances in Material Sciences	2019	DMI-St. Eugene University, Lusaka, Zambia, South-Central Africa	International
6	X-Ray Derived Experimental Charge Density Distribution in	International Conference on Recent Advances in Material	2019	DMI-St. Eugene University, Lusaka,	International

	Transition Metal Oxyfluorotellurate:$GaTeO_3F$	Sciences		Zambia, South-Central Africa	
7	X-ray Analysis of the Charge Density Distribution in Transition Metal Oxyfluorotellurate: $FeTeO_3F$	International Conference on Recent Advances in Material Sciences	4 – 6 February 2019	National College (Autonomous), Thiruchirapalli, Tamil Nadu	International
8	Molecular Structure and site selectivity studies in N-Methyl – N- nitroso – p-toluene sulfonamide using DFT Technique	International Conference on Recent Advances in Material Sciences	4 – 6 February 2019	National College (Autonomous), Thiruchirapalli, Tamil Nadu	International
9	Photoluminescence studies of $(Nd_{0.93}Sm_{0.07})_2O_3$ Nanoparticles	International conference of advanced materials	14 - 15 December, 2017	St. Josephs college, Trichy	International
10	Investigation on the properties of Sm_{3+}doped Nd_2O_3nanoparticles and X-ray characterization by the maximum entropy method (MEM)	Fourth International Conference on Nanostructured Materials and Nanocomposites (ICNM 2017)	10-12, February 2017	Mahatma Gandhi University, Kottayam, Kerala, India	International
11	An analysis of structural, electronic and reactivity properties of Metformin Chloride using XRD and DFT approach	International conference on materials processing and applications(ICMPA-2016)	December 14-16	VIT University, Vellore,	International
12	X-ray derived experimental charge density distribution in two sesquioxides In_2O_3 and Y_2O_3	International conference on materials processing and applications(ICMPA-2016)	December 14-16	VIT University, Vellore,	International
13	Charge density and chemical	International conference on	December 14-	VIT University,	International

	reactivity studies of d-sulfanilamide	materials processing and applications(ICMPA-2016)	16	Vellore,	
14	Synthesis and characterisation of Ce^{3+} doped Sm_2O_3 nano particles using solvothermal method.	International conference on materials processing and applications(ICMPA-2016)	December 14-16	VIT University, Vellore,	International
15	Synthesis and characterization of Sm doped Nd_2O_3 nanoparticles using modified Pechini method.	International conference on nanoscience, nanotechnology and advanced materials	2015	Gitam University, Vishakapatnam	International
16	Ab-initio studies of L-Alanine organic molecule	National Conference on Advanced Materials Science – 2015	2015	Jerusalem College of Engineering, Chennai	National
17	X-ray Analysis of the Charge Density Distribution in GaF_3	National Conference on Advanced Materials Science – 2015	2015	Jerusalem College of Engineering, Chennai	National
18	Investigation on reactivity descriptors of 2,5-Lutidinium Bromanilate using DFT approach	National Conference on Advanced Materials Science – 2015	2015	Jerusalem College of Engineering, Chennai	National
19	Molecular Structure, Population Analysis, Vibrational Spectroscopic and Chemical Reactivity studies of Nicotinohydrazide using DFT approach	National Conference on Advanced Materials Science – 2015	2015	Jerusalem College of Engineering, Chennai	National
20	Luminescent properties of Nd^{3+} doped Sm_2O_3 nanoparticles and its correlation with X-ray derived	Nano India - 2015	January 2015	Sastra University, Tanjavur	National

	charge density.				
21	Topological and electron density analysis and electrostatic properties of N-(Phenylsulfonyl) acetamide: An experimental and theoretical study.	National symposium on X-ray diffraction and recent advances in crystallography-2015	2015	Periyar University, Salem	National
22	Charge derived properties and site selectivity studies in 5-Amino-2-methyl benzene sulfonamide using XRD and DFT techniques	Theoretical chemistry Symposium- 2014	2014	National chemical Laboratory, Pune	National
23	Structural and electronic properties of Phenyl acetic acid using Density functional Theory	National seminar on technologically important crystalline and amorphous solids	February - 2014	Kalasalingam University, Krishnan Koil	National
24	Multipole analysis of charge density in Ampicilin trihydrate	National seminar on technologically important crystalline and amorphous solids	February - 2013	Kalasalingam University, Krishnan Koil	National
25	Electronic structural analysis of Fe doped PbS Dendrites	National seminar on technologically important crystalline and amorphous solids	February - 2013	Kalasalingam University, Krishnan Koil	National
26	Analysis of charge density distribution in a pharmaceutical drug: Dapsone	III National conference on Advanced Materials	January, 2013	PSN college of Engineering and Technology, Tirunelveli	National
27	Experimental charge density determination in iso-structural	National seminar on Technologically important	February, 2012	Kalasalingam University,	National

	Tellurides:$Hf_{0.85}GeTe_4$ and $ZrGeTe_4$	crystalline and amorphous solids (TICAS -2012)		Krishnan Koil	
28	Multipole analysis of Charge density in a pharmaceutical solid system: Tolbutamide	International conference on recent trends in Advanced Materials	February, 2012	Vellore Intstitute of Technology University, Vellore	International
29	Growth, X-ray Rietveld analysis and Charge density determination of nano sized SnO_2 with dopants.	3rd National seminar on Advances in Material Science	March, 2009	Manonmanium Sundaranar University, Tirunelveli	National
30	Electronic structure of Nano-sized $Cd_{1-x}Mn_xS$ from experimental charge density.	International Conference on active/smart materials	January, 2009	Thiagarajar College of Engineering, Madurai	International
31	Debye –Waller factors from phonon density of states	National seminar on Crystal growth of Laser and Non-linear optical materials (NSCGOM-2008)	September, 2008	National College, Trichy	National
32	Growth and characterization of Mn doped $ZnSnSb_2$ single crystals	National seminar on Crystal growth of Laser and Non-linear optical materials (NSCGOM-2008)	September, 2008	National College, Trichy	National
33	Synthesis and characterization of $Cd_{1-x}Mn_xS$ nano crystals	National seminar on Crystal growth of Laser and Non-linear optical materials (NSCGOM-2008)	September, 2008	National College, Trichy	National
34	Growth and characterization of single crystal of L-Aspragine Tartarate	12th National seminar on Crystal growth	December 2007	SSN college of Engineering, SSN Nagar, Chennai	National
35	Multipole and MEM analyses of the electronic charge distribution in Germanium at	12th National seminar on Crystal growth	December 2007	SSN college of Engineering, SSN Nagar, Chennai	National

	RT and 200K				
36	Experimental electron density in GaP at RT and 200K from single crystal X-ray data	12th National seminar on Crystal growth	December 2007	SSN college of Engineering, SSN Nagar, Chennai	National
37	Study of Electronic Charge Densities by MEM for NaCl at RT, 200 K and 78 K.	National Seminar on Crystallography	2004	National chemical Laboratory, Pune	National
38	Imaging of Electron Density Distributions of $SrCl_2$ by Maximum Entropy Method	National Seminar on Crystallography	2004	National chemical Laboratory, Pune	National
39	Bonding in fluorite compound CaF_2 using MEM	National Conference on Current Trends in Condensed Matter Research	September 20-22, 2004	Kakatiya University, Warangal	National
40	Electronic Structure of ZnTe at RT, 200 K, 100 K.	National Conference on Current Trends in Condensed Matter Research	September 20-22, 2004	Kakatiya University, Warangal	National
41	Charge Density Distribution Mapping of Copper, Chromium, Iron and Aluminium by Maximum Entropy Method (MEM).	National Seminar on Crystallography	October, 24-26, 2002	University of Jammu, Jammu	National
42	Oxygen Binding in BaO, CaO, MgO and SrO	National Seminar on Crystallography	October, 24-26, 2002	University of Jammu, Jammu	National
43	An Investigation on the Bonding in $SrCl_2$ at 300K and 80K	National Seminar on Crystallography	October, 24-26, 2002	University of Jammu, Jammu	National
44	MEM Bonding in NaCl at 78°K, 200°K and Room	*Proc. 45th SSP Symposium (DAE)*	2002	Chandigarh	National

	Temperature				
45	Resolution of MEM (Maximum Entropy Method) Electron Density Maps: Case Study on KCl	*Proc. 45th SSP Symposium (DAE)*	2002	Chandigarh	National
47	Bonding in vanadium Metal	II National Conference on Recent Advances in Materials Science – NCMS-2002	December 11-12, 2002.	CSIR & DRDO, Trichy	National
48	Debye-Waller Factors in Na_xC_{60}	XXVI National Seminar on Crystallography	January, 1995	Mysore University, Mysore	National

For item No. 20. Research Guidance (Ph.D., M.Phil. and M.Sc. Projects)

S. No.	Degree	Students Name	Title of Thesis
1.	**Ph.D.**	**Mrs. R. Niranjana Devi** Madurai Kamaraj University, Madurai Reg.No:F9430 July 2018	Analysis on theoretical and experimental electron density distribution of some pharmaceutical solid systems
2	**Ph.D.**	**Sr. Morris Marieli Antoinette** Madurai Kamaraj University, Madurai Reg.No: F9606 December 2018	Investigation on the structural and optical properties of doped and undoped rare-earth sesquioxide systems
3.	**Ph.D.**	**Mrs. C. Anzline** Mother Teresa University, Kodaikananl Reg.No: PhD2014PHYP248 March 2021	X-ray analysis on the charge density in some organic compounds
4	**Ph.D.**	**Mrs. Sujatha Kanagasabhapathy** Mother Teresa University, Kodaikananl	Charge density analysis in some Oxides, Flourides and Oxyflourides

		Reg.No:PhD2014PHYP246 March 2021	
5	**Ph.D**	**Mr. G.J. Manoj** Kamaraj University, Madurai Reg.No: P4684 September 2024	Studies on metal oxide thin films prepared by spray pyrolysis for gas sensing devices
6	M.Phil.	**J. JENIFER ROSE ,** 18 MPP 01, The American College, Madurai, 2019	Multipole analysis of charge density in 2-amino-4-methylpyridinium 2-(3-methylphenyl)- acetate
7	M.Phil.	**M. SRIRAM**, 16MPP05, The American college, Madurai, 2017	Analysis on n',n''-dibenzyl phthalamide single crystal by XRD, FTIR and UV techniques
8	M.Phil.	**W. DAPHNE SHARON**, 16MPP01, The American College, Madurai, 2017	Analsis on n',n''-di-o-tolyphthalamide single crystal by XRD, FTIR and UV techniques
9	M.Phil.	**N.Nagarathinam** (15MPP11), The American college, Madurai, 2016	Structure optimization and spectroscopic studies of hpoc using DFT
10	M.Phil.	**M.PREETHI** (15MPP07)The American college, Madurai, 2016	Study on structural and spectroscopic properties of 3-formyl chromone using density functional theory
11	M.Phil.	**V.HARIKRISHNAPRABU** (15MPP09), The American college, Madurai, 2016	Preparation and characterization of ball milled $Si_{1-x}Ni_x$: a dilute magnetic semiconductor
12	M.Phil.	**Morris Marieli Antoinette** (14 MPP 05), The American college, Madurai, 2015	Synthesis and characterization of Sm doped Neodymium sesquioxide nanoparticles
13	M.Phil.	**M.J.A. Zainab** (11 MPP 06), The American college, Madurai, 2014	DFT and Multipole analysis of charge density in Ampicilin trihydrate
14	M.Phil.	**M. Salomi Sindhuja** (12 MPP 05), The American college, Madurai, 2014	Growth and characterization of Rochelle salt single crystal
15	M.Phil.	**M. Bharathidasan**, Reg.No. A7A6222157, Madurai Kamaraj University, 2014	Charge density distribution in 3d-transition element doped Stannic Oxide nanosystem
16	M.Phil.	**G.R. Pradhiba** (11 MPP 05), The American College, 2012	Growth and characterisation of Mn doped Cerium Oxide nanoparticles

17	M.Phil.	**P. Parasakthi** (12 MPP 01), The American College, Madurai, 2012	Synthesis and characterization of YAG: Ce^{3+} Phosphor powder
18	M.Phil.	**S. Meenakshi,** Manonmanium Sundaranar University, Thirunelveli, 2011	Charge density analysis on Mn doped SnO_2 nanoparticles
19	M.Phil.	**G. Christa Nancy**, The American College, Madurai, 2010	Quantum chemical parameters of double phased zirconium dioxide nanoparticles from synchrotron data
20	M.Phil.	**M. Kathija Banu**, The American College, Madurai, 2010	Petrological and X-ray characterization of Minerals found near Madurai
21	M.Phil.	**J. Vijay David,** The American College, Madurai, 2010	Multipole analysis of charge density in a pharmaceutical solid system: Tolbutamide
22	M.Phil.	**P. X. Gladys Victoria,** Bharathidhasan University, 2009.	Multipole analysis of the charge density in Chromium (III) Oxide
23	M.Phil.	**S. Saravanakumar,** The American College, Madurai, 2009.	Charge density analysis in Yttrium doped LSMO
24	M.Phil.	**B. Balumani**, Enrolment No. A7A6222003, Madurai Kamaraj University, 2009	Charge density distribution study in Y_2O_3
25	M.Phil.	**M.S. Sivaraman, Reg. No. A4572412, M.S. University, 2009**	MEM analysis of charge density in $FeTeO_3F$ and $GaTeO_3F$
26	M.Phil.	**J. Joseph Kennedy,** Enrolment No. A7A6222118,Madurai Kamaraj University, 2009	Structural analysis of GaF_3 using Rietveld refinement
27	M.Phil.	**P. Kannan Rajadurai**, Register No. 06CD – 25874, Bharathidasan University, 2008	Estimation of multipole parameters from the charge density of Indium Oxide
28	M.Phil.	**M.Pattammal,** (07MPP09), The American college, Madurai, June 2008	Synthesis and characterization of polymer based nano composite PANI:$AlFe_2O_4$,
29	M.Phil.	**P.G. Gnanadurai,** Madurai Kamaraj University, 2008.	MEM analysis on the charge density in GaN and InN
30	M.Phil.	**G. Anu Prabha**, Madurai Kamaraj University, 2008.	Multipole analysis of the charge density in ZnTe at RT, 200K and 100K using single crystal X-ray data.

31	M.Phil.	**D. Kanchana,** Madurai Kamaraj University, 2008.	MEM analysis on the charge density in $GaAs_{1-x}Sb_x$ (x=0.0, 0.5, 1.0)
32	M.Phil.	**R. Alagurani,** Manonmaniam Sundaranar University, 2008.	Charge density distribution in rare gases by multipole and MEM analyses,
33	M.Phil.	**K. Abraham**, Madurai Kamaraj University, 2008	Charge density distribution study in InAs and $InAs_{0.5}Te_{0.5}$ using X – ray powder data,
34	M.Phil.	**S. Eswara Gomathy,** Manonmaniam Sundaranar University, 2008.	Charge density distribution analysis in $BaTiO_3$ and $CaTiO_3$,
35	M.Phil.	**J.Vaseema**, Manonmanium Sundaranar University, November 2007	Mutipole and topological analysis of charge density in Strontium Titanate
36	M.Phil.	**K. Kallavandan,** Bharathidhasan University, 2007.	Electronic structure and multipole analysis of charge density of Aluminum Oxide
37	M.Phil.	**R. Senthil Kumar,** Bharathidhasan University, 2006.	Multipole analysis of charge density in CaF_2 using single crystal X-ray data
38	M.Phil.	**S. Senthil Kumaran,** Bharathidhasan University, 2006.	Debye – Waller factors of some elemental solids,
39	M.Phil.	**P. Sathyashree,** The American College, 2006.	Preparation and Characterization of Mn Doped Cadmium Sulphide crystals by aqueous deposition method
40	M.Phil.	**M. Parameswari,** The American College, 2006.	Growth and structure determination of Mn:$ZnSnSb_2$
41	M.Phil.	**M. Nithyasuba,** Manonmanium Sundaranar University, 2003.	Temperature effect on the electron density distribution of NaCl.
42	M.Sc.	**E. Thananraj, C. Thangadurai, P. Ramkumar and P.Selvam, NMMSSVN College, May 1993**	Determination of cell constants of single crystals of ADP
43	M.Sc.	**S. C. Vanitha Kumari (00PGP15) and (00PGP20), April 2002, The American college, Madurai**	Growth and study of KDP crystals
44	M.Sc.	**A. Murugeswari (02PGPP09) and S. Annie Betty Clara (02 PGP 26), The American**	Electron density distribution in KCl-Kbr using Maximum Entropy Method

		college, Madurai, 2004	
45	M.Sc.	**C. Angulakmi (02PGP19) and N. Thirumurugan (02PGP23), The American college, Madurai, 2004**	Growth of Carbonate crystals and their Fourier electron density mapping
46	M.Sc.	**P. Kavitha (03PGP10) and L. Rani (03PGP18), The American college, Madurai, April 2005**	Investigation on nucleation and growth kinetics of Urea crystal from mehanol
47	M.Sc.	**R. Kamalakannan (03PGP08) and S. Senthil Kumar (03PGP22), The American college, Madurai, April 2005**	Photoluminescent Zinc Sulphide nanoparticle synthesi and characterisation
48	M.Sc.	**S. Sasikala (03PGP20) and B. Lakshmi Devi (03PGP11), April 2005**	Growth and characterization of Bis Thiourea Zinc Chloride crystals
49	M.Sc.	**G. Kamalapriya (03PGP09) and R.A.J.R. Sheeba(03PGP23), The American college, Madurai, November 2004**	Photo induced growth of Calcium Tartarate crystals using Gel method
50	M.Sc.	**P. Anbarasu (04PGP01) and M. Pandiaraja (04PGP15), The American college, Madurai, April 2005**	Testing and calibration of X-ray Diffractometer
51	M.Sc.	**P. Anitha Selvarani (06PGP01) and K.Vinotha (06PGP23), The American college, Madurai, April 2008**	Synthesis and characterization of Amino acid capped ZnS:Mn nanocrystals
52	M.Sc.	**A. Adeline Lydiya Josephine (07PGP01) and G. Aruna (07PGP26), The American college, Madurai, 2009**	Synthesis and characterization of manganese dioxide and Chromium(III) oxide nanoparticles
53	M.Sc.	**B. Rajesh (07PGP12) and R. Selvakumaran (07PGP15), The American college, Madurai, 2009**	Rietveld analysis and charge density determination of doped SnO_2 nano particles
54	M.Sc.	**V. Vedhamuthu (07PGP09), The American college, Madurai, April 2009**	Growth and characterization of L-Proline: Succinic acid compound
55	M.Sc.	**N. Kavitha (07PGP08) and M. Sangeetha (07PGP13), The American college, Madurai,**	Synthesis and characterization of ZnO nanoparticles

		2009	
56	M.Sc.	**N. Kavitha (07PGP08) and M. Sangeetha (07PGP13), The American college, Madurai, April 2009**	Growth analysis of calcium and magnesium phosphate crystals in gel medium
57	M.Sc.	**R. Kiruba (07PGP09) and P. Shiny Priya (07PGP17), The American college, Madurai, 2009**	Growth and characterization of non-linear optical crystal: L-Tartaric acid: N-Bromosuccinimide
58	M.Sc.	**G. Deva Sabina Christobel (07 PGP 05) and R. Merlin Raja Sofia (07PGP10), The American college, Madurai, November 2008**	A study on sunspots and magnetic field and limb darkening
59	M.Sc.	**G. Deva Sabina Christobel (07 PGP 05) and R. Merlin Raja Sofia (07PGP10), The American college, Madurai, 2009**	Growth and characterization of piezoelectric crystal : Rochelle Salt
60	M.Sc.	**B. Fiona Nishaganthi (08PGP04), The American college, Madurai,2010**	Dielectric studies on gel-grown Strontium Tartarate Tetrahydrate single crystals
61	M.Sc.	**G. Prasanna (08PGP12), The American college, Madurai, April 2010**	Synthesis and characterization of Cadmium Sulphide nanocrystal
62	M.Sc.	**P. Sam Jensih (08PGP14) and J. Arun Prabhaharan (08PGP19)**	Synthesis and characterization of Cadmium Oxide nano particles
63	M.Sc.	**K. Rajesh Kumar (08PGP13) and P.Perumal(08PGP25), The American college, Madurai, April 2010**	Investigation of a period doubling transitions to chaotic behavior using Duffing Oscillator
64	M.Sc.	**S. Sudalai Madan (08PGP17), The American college, Madurai, October 2009**	Stealthy shapes
65	M.Sc.	**C. Hardly Joseph (08PGP06) and R. Lavanya (08PGP09), The American college, Madurai, April 2010**	Generation and study of partially coherent optical bottle beam trap for neutral particles
66	M.Sc.	**D. Malliga (08PGP10) and J. Revathy (08PGP20), The American college, Madurai, 2010**	Preparation of Iron-tartarate, Manganese Tartarate and Iron-Manganese Tartarate mixed crystals by gel method

67	M.Sc.	**G. Anusuya (08PGP03), The American college, Madurai, October 2009**	Optical absorption studies on silver nanoparticles.
68	M.Sc.	**G. Amutha (08PGP02), The American college, Madurai, April 2009**	Study on the growth of various Amino Acid complexes
69	M.Sc.	**K. Kaleeswari (09PGP16), The American college, Madurai, 2011**	Preparation and characterization of Mn doped Cadmium Sulphide nanocrystals by aqueous deposition method
70	M.Sc.	**V. Tamilselvi (09PGP10), The American college, Madurai, 2011**	Growth and non linear optical properties of KDP doped with NaCl
71	M.Sc.	**V. Harikrishna Prabu (12PGP24) and P. Arunkumar(12PGP03), The American college, Madurai, 2005**	Preparation and characterization of ball milled $Si_{1-x}Ni_x$: A Diluted magnetic Semiconductor
72	M.Sc.	**B. Sugashini (13PGP24), The American college, Madurai, 2015**	A complete analysis on X-ray derived structural characteristics of ADP crystal.
73	M.Sc.	**W. Daphne Sharon (14PGP06) and J. Jeba Rejolin (14PGP11), The American college, Madurai, November 2025**	Investigation on piezoelectric properties of laboratory grown Rochelle salt
74	M.Sc.	**B. Rose Rifana (16PGP25) and R. Evelyn Gifta (16PGP26), The American college, Madurai, 2018**	Effect of Photon irradiation on Barium Titanate
75	M.Sc.	**R. Binthiya Sherin (17PGP03) and R. Vadivambika (17PGP29),The American college, Madurai,, 2019**	Crystal growth studies on structural, spectral and optical properties of Nicotinic acid crystal
76	M.Sc.	**G. Pragathy (17PGP17) and S. Ramya(17PGP20), The American college, Madurai, 2019**	Crystal growth, Piezoelectric and spectral properties of Rochelle salt
77	M.Sc.	**J. Jerries Infanta (18PGP10) and R. Nandhini (18 PGP17), May 2020**	Crystal growth of Urinary stone and the effect of inhibitors
78	M.Sc.	**I. Francis Xavier (18PGP06) and P. Mounica (18PGP31), The American college, Madurai,**	Comparison of theoretical and experimental spectral analysis of Non-linear optical (NLO)

		November 2019	crystals
79	M.Sc.	**R. Brindha (21PGP09) an S. Josephine (21PGP21), The American college, Madurai, November 2022**	Synthesis and study on perturbation effects of Sn^{2+} ions in KCl crystals
80	M.Sc.	**R. Brindha (21PGP09) an S. Josephine (21PGP21), The American college, Madurai, April 2023**	Structure determination of organic molecule : (N-methyl methanaminium 4-methyl benzonate)
81	M.Sc.	**R. Praveen Joshwa (22PGP23) and S. Dharani (22PGP 06), The American college, Madurai, April 2024**	Structural determination of Organic compound single crystal
82	M.Sc.	**S. Dharani (22PGP 06) and R. Shyam Chaand (22PGP30), The American college, Madurai, 2024**	Vibrational and structural analysis of Diazald molecule
83	M.Sc.	**Amritha Charu. V(22PGP02) and Mariam Ronald Robin. A (22PGP20), The American college, Madurai, 2024**	Understanding polymorphism from electronic structure
84	M.Sc.	**S. Mohammed Sathick (23PGP15) and Shama Nihar. N (23 PGP 23), The American college, Madurai, October 2024**	Investigation of the structural phase transition of $Bi:HoFe_3(BO_3)_4$ in the temperature range 300K – 500K
85	M.Sc.	**S. Mohammed Sathick (23PGP15) and Nithin. L (23PGP19), The American college, Madurai, April 2025**	Investigation of the quantum chemical properties of Ethyl 1H- Indole – 2- Carboxylate using Density functional theory
86	M.Sc.	**Anusuya Mary. R (23PGP03) and Steve S. Daniel (23 PGP 24), The American college, Madurai, April 2025**	Investigation of phase transition in CrAs with respect to pressure