

Curriculum Vitae

Dr. S. THIMMARAYAPERUMAL, *M.Sc., M.Phil., Ph.D.*,

Date of Birth & Age : 15.06.1990 & 33
Communication address : S/o. A. Solaimalai
1/32-Kaliamman Kovil Street
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Sex : Male
Religion (Caste) : Hindu
Nationality : Indian
Marital status : Unmarried



Teaching Experience

01.07.2023-Till Date
(03-Months)
(UG & PG-SI Level)

Assistant Professor
Department of Chemistry
Mary Matha College of Arts and Science
(Affiliated to Madurai Kamaraj University)
Nallakarupanpatti (P.O) Periyakulam Eat,
Periyakulam (T.K), Theni (D.T)
Tamil Nadu State, India-625 604.

01.06.2018-31.05.2023
(05-Years)
(UG & PG Level)

Viceprincipal, Head & Assistant Professor
Department of Chemistry
K. P. National Arts and Science College
(Affiliated to Madurai Kamaraj University)
Aana Pirivu, Vengadasthrikottai (P.O)
Batlagundu, Nilakottai (T.K), Dindigul (D.T)
Tamil Nadu State, India-624 202.

Invited Guest Lecture

Title & Venue

“Organic Fluorophore and their Material Applications”
7th February 2019
PG Department of Chemistry
Parvathy’s Arts and Science College (SF)
(Affiliated to Madurai Kamaraj University)
8/27, Wisdom City, Madurai Road, Near GRI
Begampur (P.O) Dindigul (D.T),
Tamil Nadu State, India-624 002.

Educational Qualifications

2013-2018 (5-years)	Ph. D., in Organic Chemistry [Full-Time] UGC-Non-NET Research Fellowship Public Viva-Voce Completed on 13-04-2018 at Department of Organic Chemistry, School of Chemistry, Madurai Kamaraj University, Palkalai Nagar, Madurai, Tamil Nadu State, India-625 021.
Thesis Title	“KETENE DITHIOACETAL CHEMISTRY: SYNTHESIS AND CHARACTERIZATION OF NOVEL HETEROCYCLES”
Supervisor	Dr. S. Sivakumar, Assistant Professor Department of Organic Chemistry School of Chemistry Madurai Kamaraj University Palkalai Nagar, Madurai Tamil Nadu State, India-625 021.
2012-2013 (1-year)	M. Phil., in Chemistry (Regular), First Class with Distinction (74%) at Department of Organic Chemistry, School of Chemistry, Madurai Kamaraj University, Palkalai Nagar, Madurai, Tamil Nadu State, India-625 021.
2010-2012 (2-years)	M. Sc., in Chemistry (Regular), First Class (71%) at Thiagarajar College (Autonomous) Affiliated to Madurai Kamaraj University, Anupanadi, Theppakulam, Madurai, Tamil Nadu State, India-625 009.
2007-2010 (3-years)	B. Sc., in Chemistry (Regular), First Class (70%) at Vivekananda College (Autonomous) Affiliated to Madurai Kamaraj University, Tiruvedakam West, Sholavandhan, Madurai, Tamil Nadu State, India-625 234.
2005-2007 (2-years)	H.S.S. (76%), Government Model Higher Secondary School, Viruveedu, Nilakottai (T.K), Dindigul (D.T), Tamil Nadu State, India-624 220.
2000-2005 (5-years)	S.S.L.C. (75%), Government Model Higher Secondary School, Viruveedu, Nilakottai (T.K), Dindigul (D.T), Tamil Nadu State, India-624 220.

Project Experience

M.Phil. Project

Title :“EFFICIENT AND GREEN APPROACH TO SYNTHESIS OF 2-ARYL BENZIMIDAZOLE”
Duration : 2012-2013 (1 Year-Academic)
Guide : **Dr. S. Sivakumar**, Assistant Professor, Department of Organic Chemistry, School of Chemistry, Madurai Kamaraj University, Palkalai Nagar, Madurai, Tamil Nadu State, India-625 021.

M.Sc. Project

Title :“FACILE SYNTHESIS OF SILVER NANO PARTICLE THROUGH AN ANILINE ASSISTED ROUTED IN DIFFERENT CONDITION AND THEIR CATALYTIC REDUCTION OF NITROPHENOL”

Duration : 2011-2012 (1 Year-Academic)
Supervisor : **Dr. K. Pandian**, Controller and Associate Professor, Department of Inorganic Chemistry, School of Chemical Science, University of Madras, Guindy Campus, Chennai, Tamil Nadu State, India-600 025.
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Dr. P. Tharmaraj, Associate Professor, PG & Research Department of Chemistry, Thiagarajar College (Autonomous), Affiliated to Madurai Kamaraj University, Anupanadi, Theppakulam, Madurai, Tamil Nadu State, India-625 009.

Academic Bodies

- ❖ Madurai Kamaraj University Examination Co-Ordinator (**Both Internal and External Semester Examination**)
- ❖ Madurai Kamaraj University External Examiner (**Both Theory and Practical Exams**)
- ❖ Madurai Kamaraj University **NSS Coordinator**
- ❖ Organised Science Day Exhibition and Seminar for Intra and Inter College Students

Subjects of Interest

- ❖ Synthesis and characterization of novel *N*, *S*, and *O* containing heterocycles and carbocycles using ketene dithioacetals
- ❖ Synthesis and studies of new Donor-Acceptor (D-A) based organic dyes, optoelectronic materials and AIE sensor molecules from (cyano, nitro, arylidene and aroylidine) ketene-*S,S*, -*N,S*, and -*N,N* acetals
- ❖ Synthesis and studies (photophysical and biological) of novel heterocycles and carbocycles using 2*H*-Pyranone derivatives
- ❖ Multi component reactions
- ❖ Green Chemistry oriented synthesis
- ❖ 1,3-Dipolar cycloaddition reactions
- ❖ Metal catalyzed reactions

Research Experience in Ph.D

- Good knowledge in organic laboratory experimental techniques
- Worked in the area of heterocyclic, carbohydrates, aliphatic and aromatic chemistry and metal catalyst mediated reactions
- Hands of experience in handling the reaction on gram and bulk scale
- Making reports and queries related to the projects. Interpretation of analytical data and troubleshooting
- Expertise in thin layer chromatography, column chromatography, vacuum distillation and steam distillation
- Isolation of different organic compounds by using different purification techniques
- Recovery of solvents, purification and maximum utilization in the synthesis
- Familiar with structural assignments of organic compounds using 1D and 2D NMR and mass techniques
- Manuscript preparation
- Good command of Microsoft Office, ChemDraw, origin, MestReNova, and SciFinder Scholar

Instrument Handled

- ❖ Handled 300 MHz FT-NMR instrument
- ❖ FI-IR instrument
- ❖ Rota vapour, Buchi (20 Litre)
- ❖ Handle and recorded UV, PL Spectrometry, and CV-instrument
- ❖ Handled Microwave Synthesizer (Biotage and CEM Discover)
- ❖ Ultrasound-assisted (Sonication) Instrument

List of publications

1. Synthesis of Indenophenanthridine *Via a [4+2]Annulation Strategy: a “Turn-Off” Fe^{3+} Ion Sensor, Practical Application in Live Cell Imaging and Reversible Acidochromism Studies*
Kannan Jamuna, **Solaimalai Thimmarayerumal**, Manikka Kubendran Aravind, Shanmugam Sivakumar and Balasubramaniam Ashokkumar
New J. Chem, **2022**, *46*, 9207–9213.
2. Ultrasound-Assisted One-Pot Multicomponent 1,3-Dipolar Cycloaddition Strategy: Combinatorial Synthesis of Spiro-Acenaphthylene-*S,S*-Acetal and 2*H*-pyranone Derivatives
Solaimalai Thimmarayerumal and Sivakumar Shanmugam
New J. Chem, **2018**, *42*, 4061–4066.

3. Base Promoted Selective Synthesis of 2*H*-Pyranones and Tetrahydronaphthalenes *via* Domino Reactions
Solaimalai Thimmarayaperumal and Sivakumar Shanmugam
ACS Omega, **2017**, 2, 4900–4910.
4. Tetraphenylethylene-2-Pyrone Conjugate: Aggregation Induced Emission Study and Explosives Sensor
Vaithyanathan Mahendran, Kamaraj Pasumpon, *Solaimalai Thimmarayaperumal*, Pakkirisamy Thilagar and Sivakumar Shanmugam
J. Org. Chem., **2016**, 81, 3597–3602.
5. One-pot chemo/regio/stereoselective generation of a library of functionalized spiro-oxindoles/pyrrolizines/pyrrolidines from α -aroylidineketene dithioacetals.
Pandi Dhanalakshmi, Seenivasagaperumal Sriram Babu, *Solaimalai Thimmarayaperumal* and Sivakumar Shanmugam.
RSC Advances, **2015**, 5, 33705–33719.
6. Metal catalyst free one-pot synthesis of 2-arylbenzimidazoles from α -aroylketene dithioacetals.
Pandi Dhanalakshmi, *Solaimalai Thimmarayaperumal* and Sivakumar Shanmugam
RSC Advances, **2014**, 4, 12028–12036.
7. Microwave-assisted an Efficient Synthesis of Polysubstituted Benzenes *via* One-pot and Transition-Metal-Free Benzannulation
Solaimalai Thimmarayaperumal and Sivakumar Shanmugam
(Submitted manuscript)
8. Sustainable and One-Pot Three-Component Reaction: Chemo/Regioselective Synthesis of 6-(styryl)-4-(methylthio)-1-phenyl-1*H*-pyrazolo[3,4-*b*]pyridines from α -Aroylidineketene dithioacetals
Solaimalai Thimmarayaperumal and Sivakumar Shanmugam
(Manuscript under preparation)

Conferences/Seminars/Workshops/Symposium

Poster Presentations

1. Synthesis and Characterization of Donor-Acceptor based Organic Fluorescent Materials from α -Aroylketene dithioacetals *via* Domino Reaction
Solaimalai Thimmarayaperumal and Sivakumar Shanmugam
DST-SERB Sponsored International Conference on Functional Materials (ICFM), September 07-08, 2017, PG & Research Department of Chemistry, Thiagarajar College (Autonomous), Affiliated to Madurai Kamaraj University, Anupanadi, Theppakulam, Madurai, Tamil Nadu State, India-625 009.
2. Bridged-Annulation Protocol to the Synthesis of Indenophenanthridines from α -aroylketene dithioacetals
Ammavasi Sathishkumar, *Solaimalai Thimmarayaperumal* and Sivakumar Shanmugam
CRSI Sponsored-National Seminar on Emerging Trends in Chemistry, February 18-20, 2016, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.

3. Highly Convergent One-pot Two-Component of 2*H*-Chromene from α -Oxoketene dithioacetals
Manoharan Ahila Devi, ***Solaimalai Thimmarayaperumal*** and Sivakumar Shanmugam
CRSI Sponsored National Seminar on Emerging Trends in Chemistry, February 18-20, 2016, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.
4. One-pot Chemoselective Synthesis of 6-styryl-1*H*pyrazolo[3,4-*b*]pyridines from α -aroylidineketene dithioacetals
Solaimalai Thimmarayaperumal and Sivakumar Shanmugam
CRSI Sponsored National Seminar on Emerging Trends in Chemistry, February 18-20, 2016, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.
5. Synthesis of 3,5-disubstituted 2,6-dicyanoanilines *via* alkaline base mediated domino annulations of α -aroylketene dithioacetal with malononitrile
Solaimalai Thimmarayaperumal and Sivakumar Shanmugam
International Conference on Nanomaterials for Energy, Environment, Catalysis and Sensors (ICNEECS-15) December 11-12, 2015, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.
6. α -aroylidineketene dithioacetals: chemo/regioselective synthesis of functionalized spiro-acenaphthylene pyrrolizine/pyrrolothiazole derivatives *via* multicomponent reaction
Solaimalai Thimmarayaperumal and Sivakumar Shanmugam
10th Mid-Year Chemical Research Society of India (CRSI) Symposium in Chemistry July 23-25, 2015, National Institute of Technology (NIT), Trichirapalli, Tamil Nadu State, India-620 015.

Seminar Participated

1. One Day Webinar on “***Climate Change and Human Health Implications***” - June 05, 2021, Department of Chemistry, B. S. Abdur Rahman Crescent Institute of Science and Technology, Vandalur, Chennai, Tamil Nadu State, India-600 048.
2. Three Days National Level E-Seminar on “***Advanced Functional Materials***” – February 09-11, 2021, Department of Physics and Chemistry, Latha Mathavan Arts and Science College, Affiliated to Madurai Kamaraj University, Kidaripatti, Alagarkovil, Madurai, Tamil Nadu State, India-625 301.
3. One Day Webinar on “***Writing a Scientific Manuscript – Key Points to Remember & Key Factors for Researchers***” - June 05, 2020, Department of Physics, JP College of Arts and Science, Affiliated to Monomaniam Sundharanar University, Agarakattu, Ayikudi, Tenkasi, Tamil Nadu State, India-627 852.
4. RSC & SERB Sponsored Two Days Symposium on “***Inorganic Chemical Biology***” - March 17-18, 2017, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.

5. One Day National Seminar on “**Modern Trends in Chemistry**” - March 28, 2016, PG & Research Department of Chemistry, Vivekananda College (Autonomous), Affiliated to Madurai Kamaraj University, Tiruvedakam West, Sholavandan, Madurai, Tamil Nadu State, India-625 234.
6. National Conference on “**Biomaterials in Medicinal Chemistry**” - December 21-22, 2015, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.
7. DST&MKU Sponsored One Day National Seminar on “**Recent Trends in Chemistry**” - September 11, 2015, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.
8. National Seminar on “**Catalysis and Catalyzed Reactions**” - March 18, 2014, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.

Workshop

1. The National Academy of Science sponsored Two-Days Lecture Workshop on “**Entrepreneurship Skill Developments in Chemistry**” - March 10-11, 2017, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.
2. Science Academies sponsored Two-Days Lecture Workshop on “**Recent Developments in Chemistry**” - January 27-28, 2016, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.
3. Royal Society of Chemistry organized One-Day Workshop on “**Applications of Computational Chemistry**” - October 12, 2015, School of Chemistry, Madurai Kamaraj University, Palkali Nagar, Madurai, Tamil Nadu State, India-625 021.
4. DST sponsored National Lecture Workshop on “**Current Trends in Chemistry**” - February 26-27, 2014, Arul Anandar College (Autonomous), Affiliated to Madurai Kamaraj University, Madurai East, Karumathur, Chellampatti, Madurai, Tamil Nadu State, India-625 514.

References

Dr. S. Sivakumar (Ph.D & M.Phil Supervisor)

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India- 624 101.)*
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Dr. P. Vijayan

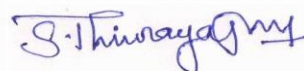
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*(Former Registrar & Controller
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Palkalai Nagar, Madurai
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Former Head & Associate Professor
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Declaration

I hereby declare that above particulars made in this resume are correct to the best of my knowledge and belief.

Date :

Place :



(Dr.S.THIMMARAYAPERUMAL)