

Dr. L. CATHRINE, M.Sc., M.Phil., Ph.D.,

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Professional Summary:

❖ I am working as an Assistant Professor for the past 15 years. I am a dynamic and enthusiastic **Professor cum Researcher** in the field of Chemistry and always encourage the **young research scholars to pursue their awards** by providing intellectual assistance. More than studies I will advise my students to follow the human values which will be a blessing in their life. I will encourage the students to do regular exercise and meditation to keep their mind and body healthy. My area of research is Phytochemistry. I am Guiding 5 Ph.D scholars and have guided more than 50 UG and PG and 2 M.Phil Students. Completed two minor research projects under UGC and also have received awards.

❖ **Qualification:** M.Sc., M.Phil., Ph.D

Experience

- Presently working as an Assistant Professor in Department of Chemistry, Holy Cross College, Tiruchirappalli from 2004 to till date.
- Ph.D Chemistry, Bharathidasan University, Tiruchirappalli (2012)
- M.Phil Chemistry, Bharathidasan University, Tiruchirappalli (2006)
- M.Sc.Chemistry, St. Joseph's College (Autonomous), Tiruchirappalli-2(2004)
- B.SC. Chemistry, Holy Cross College (Autonomous), Tiruchirappalli-2 (2002)

Subjects of Expertise:

1. Inorganic Chemistry
2. Chemistry of biomolecules
3. Environmental chemistry
4. Soft skills
5. Medicinal chemistry
6. Food chemistry
7. Gender studies
8. Value education
9. Phytochemistry

Leadership Profile:

- Examination core committee in charge for college 2012- 2015
- Staff club vice president for college 2014
- Department **coordinator** for the year 2011- 2012
- M.Phil Coordinator, Department of Chemistry, Holy Cross College (autonomous), Trichy
- Core committee member for NAAC Parameter. 2014 to till date.
- Coordinator for NAAC parameter infrastructure and learning resources.

Key Achievements:

- Conference Convener for the “National Conference on Evolutionary Trends in Biological and Pharmaceutical Chemistry
- Treasurer for the National conference on **Youth and values** organised by the department of value Education.
- Finance coordinator for the International conference organised in the college 2018(ICNRI)
- M.Phil Examiner for many colleges.
- Delivered a **Special Talk** on “**Renewable energy resources**” at **One Day Workshop organized by** Oxford Engineering college, Tiruchirappalli.
- Delivered a **Special Talk** on “**Food chemistry**” at All India Radio, Tiruchirappalli.

- Delivered a lecture on **(Innovations in Phytochemistry)** at **JJ College of arts and science, Pudukottai**.
- **Resource person** in the Training Programme for “**Science Graduate Teachers on Samacheer Kalvi**”, held at Holy Cross College on 27th August 2011.
- Resource Person in the National Workshop on “ Green Techniques in Chemistry Laboratory Experiments (GTCLT- 2013)”, (9th, January, 2013)
- Resource Person in the training Programmer for Post Graduate Teachers on Microscale Experiments with Green Techniques”, 23rd August 2013.

Publication:

- **Published nearly 35 papers in International journals and also has authored a book.**
- Dr.L.Cathrine and S.Gurupriya., “In Vitro Anti-Microbial Activity Of (1R,3aR,5aR,5bR,7aR,9S,11aR,11bR,13aR,13bR)-3a,5a,5b,8,8,11a-hexamethyl-1-prop-1-en-2-yl 1,2,3,4,5,6,7,7A,9,10,11,11B,12,13,13A,13B hexadecahydrocyclopenta[a]chrysen-9-ol Isolated From Methanolic Leaf Extract Of *Andrographis Echioides*” *International journal of biology, pharmacy and allied sciences*,2020; 9(7): 1460-1471.
- 1. Dr.L.Cathrine., Dr. C Muthukumar and S.Gurupriya., “Qualitative and quantitative phytochemical analysis of *Costus igenus*” leaf extract , *Journal of Pharmacognosy and Phytochemistry*,2019;8(4):1595-1598.
- 2. Dr.L.Cathrine, P. Pratheema and S. Gurupriya., “*In-Vitro* Antidiabetic Activity Of 2-(3,4-Dihydroxyphenyl)-3,5,7-Trihydroxy4h-Chromen-4-One Isolated From The Methanolic Extract Of *Andrographis Echioides* Leaves” *International Journal of Pharmaceutical Sciences and Research*, 2019; 10(8): 3856-3864.
- Dr. L.Cathrine,J. Ramesh , S.Gurupriya ,P. Pratheema and K. Sahira Banu ., Biosynthesis of silver nanoparticles using *Simarouba glauca* seed extract and their anti-microbial activity, *International Journal of Recent Scientific Research* Vol. 9, Issue, 3(C), March, 2018. pp. 24828-24831.
- Dr. L.Cathrine, J. Ramesh, S.Gurupriya and P. Pratheema., Green synthesis, characterization and antibacterial activity of silver nanoparticles from leaf extract of

Simarouba glauca, International Journal for Research in Applied Science & Engineering Technology, Volume 6, Issue 3, March 2018, PP 933-937.

- Dr.L.Cathrine, S.Gurupriya, P. Pratheema and J. Ramesh ., In vitro study of antimicrobial and antioxidant activity of the 2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy-4h-chromen-4-one isolated from the methanolic extract of *Andrographis echioides* leaves, World journal of pharmacy and pharmaceutical sciences, Volume 8, Issue 1,December 2018,pp. 984-997.
- Dr. L.Cathrine and K.Sahira Banu., Antioxidant Activity of Carica Papaya Leaf Extract (Rajasthan Variety)., International Journal for Research in Applied Science & Engineering Technology, Volume 6 Issue 3, March 2018, PP 2259-2263.
- Dr.L.Cathrine, S.Gurupriya, P. Pratheema and J. Ramesh.,Isolation, Characterization, Leaves characterization of lupeol from methanolic extract of leaves of *Andrographis echioides* ., International Journal of Current Advanced Research, Volume 7; Issue 4(B); April 2018; PP 11397-11402.
- Dr.L.Cathrine, P. Pratheema, S.Gurupriya and J. Ramesh., Anti- Inflammatory And Anti- Bacterial Activity of Titanium Nanoparticles Synthesized From Rhizomes of *Alpinia Calcarata* International Journal for Research in Applied Science & Engineering Technology, Volume 6, Issue 3, March 2018, PP 2472-2477.
- Dr.L.Cathrine, S.Gurupriya and J. Ramesh., In vitro antidiabetic and antioxidant activities of lupeol isolated from the methanolic extract of *Andrographis echioides* leaves, Journal of Pharmacognosy and Phytochemistry 2018; 7(4): 768-775.
- Dr.L.Cathrine, S.Gurupriya, P. Pratheema and J. Ramesh .,Preliminary phytochemical screening and GC- MS analysis of ethanolic stem extract of *Andrographis paniculata*., International Journal of Recent Scientific Research ,Vol. 9, Issue, 3(J), March, 2018, pp. 25300-25303.
- Dr.L.Cathrine, S.Gurupriya and P. Pratheema., HPTLC method for the determination of lupeol from *Andrographis echioides* leaves, International Journal of Pharmacy and Pharmaceutical Sciences, Vol 10, Issue 5, April 2018,pp.102-107.
- Dr. L.Cathrine, K.Sahira Banu and Dr.John Britto ., In vitro anticancer activity of Carica papaya (fruitless type) extract against human mcf-7 cell line, International Journal of Advance Research in Science and Engineering , Volume 6, Issue 10, October 2017, PP 578-584.

- Dr. L.Cathrine, S.Gurupriya and J. Ramesh .,Qualitative and Quantitative Phytochemical Analysis of *Simarouba glauca* Leaf Extract., International Journal for Research in Applied Science & Engineering Technology, Volume 5 Issue 9 November 2017 PP 475-479.
- Dr.L.Cathrine, J.Ramesh and S.Gurupriya` GC-MS analysis and Anti-Oxidant Activity of Simarouba Glauca Leaf Extract , International Journal of Advance Research in Science and Engineering , Volume 6, Issue 10, October 2017, PP.445-452.
- Dr.L.Cathrine, P. Pratheema, S. Gurupriya and K. Sahira Banu., Isolation and characterization of stigmasterol from methanolic extract of rhizomes of *Alpinia calcarata*, World Journal of Pharmacy and Pharmaceutical Sciences, Volume 6, Issue 12, December 2017,pp. 1872-1885.
- Dr.L.Cathrine and P. Pratheema., Identification, Quantification and Validation of Stigmasterol from *Alpinia calcarata* using High-performance thin layer chromatography method, International Journal of Pharmacy and Pharmaceutical Sciences, Vol 9, Issue 9, July 2017, pp. 126-131.
- Dr.L.Cathrine and P. Pratheema., In-vitro anti-inflammatory activity of *Alpinia Calarata* using bovine albumin-protein denaturation method and HRBC-membrane stabilization method, International Journal of Advance Research in Science and Engineering , Volume 6, Issue 10, October 2017, PP 560-566.
- Dr. L.Cathrine and K.Sahira Banu., Phytochemicals screening, Antibacterial and Antioxidant activity of *Carica papaya* Leaf Extract (Fruitless Type), The Journal of Phytochemistry, Photon 117 (2016) 371- 377.
- Dr. L. Cathrine, K. Kayalvizhi and K. Sahira Banu., Phytochemical and antibacterial studies on the leaf extracts of female *Carica papaya*.linn, International Journal of Pharmtech Research, Vol.8, No.7, January 2015,pp 166-170.
- Dr.L.Cathrine., K.Sahira Banu., J.Ramesh., A chemical profile on Indian medicinal plants for the study of anticancer activity, International Journal of Research and Development in Pharmacy & Life Sciences
- Dr. L.Cathrine and K.Sahira Banu., General Techniques Involved in Phytochemical Analysis, International Journal of Advanced Research in Chemical Science , Volume 2, Issue 4, April 2015, PP 25-32.

- Dr.L.Cathrine. ., Prabhavathi Nagarajan., 2010 A Review of Chemical Profile of Vitex Species, *International Journal of Chemistry and Applications*, (2) 3: pp.161-166.
- Dr.L.Cathrine. ., Prabhavathi Nagarajan., Preliminary Phytochemical Screening and Antibacterial Activity of *Vitex leucoxylon*”, 2011 *International Journal of Current Pharmaceutical Research*, (3), 2, pp.71-73.
- Dr.L.Cathrine., Prabhavathi Nagarajan., Merlin Rose., Preliminary Phytochemical Screening and Antibacterial Activity of *Vitex Negundo*”, *International Journal of Current Pharmaceutical Research*, (3), 2, pp.91-93.

Book Publications:

- Authored a book titled “**Phytochemical studies on Vitex leucoxylon Verbenaceae** “ L.Cathrine & N.Prabavathi (ISBN: 978-3-659-42148-8)
- Editorial Board Member of Lab Manual for Green Chemistry Practical. (ISBN: 978-93-80622-40-8) (Holy cross college)
- Chief Editor of ethics book for value education.(Holy cross college)

Research and Projects:

Research Interest:

- Phytochemistry

Research Guiding Experiences

M.Sc Projects - 30

At Present Guiding 3 Ph.D Scholars.

- Full Time - 1
- Part time - 2

Minor Project:

- **Principal Investigator** for **Minor Research Project** under the titled “**Phytochemical and pharmacological study on different cultivars of Carica Papaya**” funded by University Grants Commission, Hyderabad for an amount of Rs.**3,80,000/-**

- **Co-Investigator** for **Minor Research Project** under the titled “**Phytochemical studies on *Vitex leucoxylon* as Biopesticide in traditional pest management**” funded by University Grants Commission, Hyderabad for an amount of **Rs.1,00,000/-**

Membership in various bodies:

- Doctoral Committee Member , Holy Cross College, Trichy
- Doctoral Committee Member , ST. Joseph’s College, Trichy
- Doctoral Committee Member, Jamal Mohammed College, Trichy.
- Doctoral Committee Member, A.V.V.M Sri Pushpam College, Tanjore.
- Life member of American Chemical Society.
- Life member of Bose Scientific Society
- Member of editorial Board, Review committee, Expert panel of Global illuminators research journal and conferences, Malaysia.
- Executive member for the Alumni Association of St. Joseph’s college, Tiruchirappalli. From 2018

Awards:

- **Best Paper Award** for the paper presentation in a National level symposium held at Srinivasan College of arts and science, Perambalur on Feb 2012 paper entitled “Phytochemical and antibacterial studies on *Vitex Altissima*”.
- **Best women Award** for service in the field of Education and society by Rotary club of Trichy on 8th March 2018.
- **Best Special Recognition award** in the field of chemistry 2018-2019 by Holy Cross College, Trichy.

Personal Details

Date of birth : 19/10/1981
Marital status : Married
Spouse Name : Dr.S.Britto Ramesh Kumar
Religion : Christian (Roman Catholic)

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