

CURRICULUM VITAE

Dr. A. Lakshmanan

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Academic Profile

Designation	:	Assistant Professor Vivekandha Arts and Science College for Women, Sankari, Salem
Ph.D., Chemistry (2012-2017)	:	Department of Chemistry, The Gandhigram Rural Institute, Gandhigram (Highly commended)
Title of the thesis	:	Phyto-mediated Synthesis, Characterization, Catalytic and Pharmacological Studies of Gold and Silver Nanoparticles
Supervisor	:	Prof. N.S. Nagarajan, Gandhigram Rural Institute
M. Phil., Chemistry (Dec. 2010-2011)	:	Department of Chemistry, The Gandhigram Rural Institute, Gandhigram- 624 302 (Ist Class, 73.8%)
M.Phil. Dissertation	:	Studies on Phytochemical and in-vitro Anti-oxidant and Anti-inflammatory Activities of <i>Atlantia monophylla</i> and <i>Citrus sinensis</i>
Advisor	:	Prof. N.S. Nagarajan, Gandhigram Rural Institute
M. Sc., Chemistry (2007-2009)	:	Department of Organic Chemistry, Muthayammal College of Arts & Science, Rasipuram - 637408 (Ist Class, 65.90%)

- M.Sc. Dissertation** : **Isolation and Anti-oxidant Property of *Emblica officinalis* linn**
- Advisor** : **Mrs. P. Sumathi, M. Phil.**
- B. Sc., Chemistry (2004-2007)** : **Department of Chemistry, Sengunthar Arts and Science College, Tiruchengode (Ist Class, 65.7%)**
- 12th Std. (2004)** : **State Board, Maths Biology, GBHSS, Idappadi (59%)**
- 10th Std. (2002)** : **State Board, GBHSS, Idappadi (60.2%)**

Professional Profile

- ❖ **April 2015 - March 2016** **UGC-RFSMS Senior Research Fellow,**
Department of Chemistry, The Gandhigram Rural Institute, Gandhigram.
- ❖ **March 2013 - March 2015** **UGC-RFSMS Junior Research Fellow,**
Department of Chemistry, The Gandhigram Rural Institute, Gandhigram.

Research Interests

- ❖ **Green Synthesis and characterization of Gold and Silver nanoparticles**
- ❖ **Determination of antioxidant, antibacterial and anti-inflammatory activity of gold and silver nanoparticles by *invitro* methods.**
- ❖ **To study on photocatalytic activity of silver and gold nanoparticles using different dyes.**
- ❖ **Isolation, extraction and characterisation of phytoconstituents from medicinal plants**
- ❖ **Isolation and characterisation of essential oil from plants and determine the pharmacological studies.**

Research Publications

1. **A. Lakshmanan**, C. Umamaheswari and N. S. Nagarajan
A Facile Phyto-Mediated Synthesis of Gold Nanoparticles using Aqueous Extract of *Momordica cochinchinensis* Rhizome, Their Biological Activities
Journal of Nanoscience and Technology, 2 (2016) 1-5.
2. **A. Lakshmanan** and N. S. Nagarajan, Phyto-fabrication, Antibacterial and Catalytic potential of gold nanoparticles synthesised using *Dalbergia coromandeliana* leaves extract, **Materials Focus**, 5 (2016) 347-354.
3. C. Umamaheswari, **A. Lakshmanan** and N. S. Nagarajan, "Green synthesis, characterization and catalytic degradation studies of gold nanoparticles against Congo Red and Methyl Orange", **Journal of Photochemistry and Photobiology B: Biology**, 178 (2018) 33-39
4. C. Umamaheswari, **A. Lakshmanan** and N. S. Nagarajan, "Phyto-mediated synthesis, biological and catalytic activity studies of gold nanoparticles", **IET Nanobiotechnology**, Accepted Manuscript [10.1049/iet-nbt.2017.0036](https://doi.org/10.1049/iet-nbt.2017.0036) (2017)

Abstracts in International Conferences

1. **A. Lakshmanan**, N. Muniyappan and N.S. Nagarajan,
Chemical composition and *invitro* antioxidant activity of essential oil from *Ruta graveolens*
International conference on Recent advances in textile and electrochemical sciences (RATES-2013), Karaikudi. March 21-23 013. (ISBN: 978-82-920867-5-0).

2. N. Muniyappan, [A. Lakshmanan](#) and N.S. Nagarajan

Synthesis, Characterization and biological studies of gold nanoparticles and ecofriendly reduction of 4-nitrophenol

International conference on Recent advances in textile and electrochemical sciences (RATES-2013), Karaikudi. March 21-23 013. (ISBN : 978-82-920867-5-0).

3. [A. Lakshmanan](#), N. Muniyappan and N.S. Nagarajan

Microwave assisted synthesis of bioactive silver nanoparticles using aqueous extract of *Pomgamia pinnata* roots

International conference on Chemical and environmental research (ICCER-2014), Jamal Mohamed College, Tiruchirapalli. March 11-12 2014. (ISBN: 978-93-81521-36-6).

4. C. Umamaheswari, [A. Lakshmanan](#) and N.S. Nagarajan

Green synthesis of gold nanoparticles using *Dalbergia Candenatensis* stems aqueous extract and their Antibacterial and antioxidant activity

International Conference on Advances in Micro/Nanotechnologies For Biological Applications (ICAMB - 2015) August 7 – 8th , 2015. PSG Institute of Advanced Studies, Coimbatore - 641 004

5. C. Umamaheswari, [A. Lakshmanan](#), and N.S. Nagarajan,

Phytomediated Synthesis, Characterization and antibacterial activity of gold nanoparticles

International conference on Recent Advances in Materials and Chemical Sciences (ICRAMCS - 2015), December 14-15, 2015, Gandhiram Rural Institute- DU, GRI.

6. C. Umamaheswari, [A. Laksmanan](#), and N.S. Nagarajan

“Phyto-mediated synthesis of gold nanoparticles and their antioxidant, anti-inflammatory and catalytic activity studies”, 1st International Conference on nanoscience and nanotechnology (ICNAN’16), 19-21st October 2016. VIT University, Vellore.

7. C. Umamaheswari, A. Laksmanan, and N.S. Nagarajan,

“Green synthesis, characterization and catalytic potential of gold nanoparticles in photoreduction of tartrazine”, International Conference on chemical and environmental research (ICCER-2017), 7th January 2017. Jamal Mohamed College, Tiruchirappalli.

8. C. Umamaheswari, A. Laksmanan, and N.S. Nagarajan,

“Green synthesis of gold nanoparticles using an isoflavone, characterization and catalytic degradation studies against Congo Red and Methyl Orange”, International conference on membrane technology and its applications (MemSep 2017), 21- 23rd February 2017. National Institute of Technology -Tiruchirappalli,

Abstracts in National Conferences/Seminars

1. A. Lakshmanan and N.S. Nagarajan

Phytomediated synthesis of silver nanoparticles and their antioxidant and antibacterial activities

National conference on Recent advances in chemical sciences (RACS), Gandhiram Rural Institute- DU, GRI. March 5-6, 2015.

2. A. Lakshmanan and N.S. Nagarajan

Studies on bio synthesis of gold nanoparticles using aqueous extract of *Momortica cochinchinensis* and its antioxidant and antibacterial activities

National conference on Modern Trends in Chemistry – MTC –II, PSNA college of engineering and technology, Dindigul. July 24-25 2014.

3. N. Muniyappan, A. Lakshmanan and N.S. Nagarajan

Synthesis, characterization and pharmacological studies of gold nanoparticles and ecofriendly reduction of 4-nitrophenol

National conference on Advances in synthetic and materials chemistry (NCASMC - 2014), University of Mumbai, Mumbai. March 10-11 2014.

4. T. Radha, A. Lakshmanan and N.S. Nagarajan

Anticorrosion study of ethanolic extract of *Dalbergia coromandeliana* roots
Recent advances in surface science, Gandhiram Rural Institute-DU, GRI.
2013. (ISBN: 978-82-978-93-82338-36-9)

5. N. Muniyappan, A. Lakshmanan and N.S. Nagarajan

Chemical composition of the essential oil and the solvent extracts of *Curcuma Pseudomontana* rhizomes and *invitro* evaluation of their antioxidant and anti-inflammatory activities

National conference on New Vistas and Challenges in Chemistry at Sathyabama University on Jan 23-25 2013. (ISBN: 978-81-922119-7-8).

6. Lakshmanan, N. Muniyappan and N.S. Nagarajan

Invitro antioxidant and anti-inflammatory activities and chemical composition of the Essential of oil of *Toddalia asiatica*

National conference on New Vistas and Challenges in Chemistry at Sathyabama University on Jan 23-25 2013. (ISBN : 978-81-922119-7-8).

Skills

- ❖ **Strong knowledge and research experience in the preparation of nanoparticles by green approach**
- ❖ **Experience in utilizing the nanoparticles as a antioxidant and antibacterial agent to enhance the medicinal activity**
- ❖ **Experience in Isolation of drug and essential oil from the medicinal plants.**
- ❖ **Hands on experience in handling instruments like UV-visible spectrometer, Fluorescence spectrometer, Fourier Transform-Infra Red Spectrometer (FTIR), Rotary Evaporator, Scanning Electron Microscope (SEM).**

Additional Responsibilities

- ❖ **Assisted M.Sc and B.Tech practical classes**
- ❖ **Assisted M.Sc. and M.Phil., students for carrying out their project/ dissertation work**

Personal Skills

- ❖ **Self Confidence with Time Keeping**
- ❖ **Leadership quality**
- ❖ **Tolerant and Flexible to Different Situations**

Personal Details

Date of Birth : **15 April 1987**
Gender : **Male**
Marital Status : **Single**
Blood Group : **B 'Positive'**
Languages Known : **Tamil and English**
Nationality : **Indian**
Religion : **Hindu**
Present Address : **S/o. A. Alagappan**

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References

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2. Dr. M.G. Sethuraman

**Professor
Department of Chemistry
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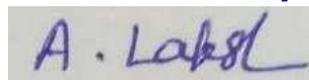
Declaration

I hereby declare that the above furnished details are true to the best of my knowledge

Idappadi

10.09.2025

Yours sincerely



(A. LAKSHMANAN)