

## RESUME



1. Name & Designation : **Dr. S. THALAMUTHU**  
Associate Professor of Chemistry  
Department of Science and Humanities  
National Engineering College,  
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Thoothukudi District, Tamil Nadu, India
2. Date & Place of Birth : 13- 05-1983, Virudhunagar District
3. Nationality : Indian
4. Communication Address : 46/14, K.R. Complex, Near to Reddiyar Mandabam,  
1<sup>st</sup> Street, Veeravanchi Nagar  
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8. Qualifications M.Sc., M.Phil., Ph.D

9. **Experience**

| Period (Year)      | Name of the Post                 | Area of specialization/ Subjects | Name of Institute/ University/ |
|--------------------|----------------------------------|----------------------------------|--------------------------------|
| 2022 – Till Date   | Associate professor              | Inorganic Chemistry              | National Engineering College   |
| 2018 –2022 (April) | Assistant professor Senior Grade | Inorganic Chemistry              | National Engineering College   |
| 2011 - 2018        | Assistant professor              | Inorganic Chemistry              | National Engineering College   |
| 2010 - 2011        | Lecturer                         | Inorganic Chemistry              | National Engineering College   |

10. **Courses Thought**

| Name courses                                      | UG/PG | SEM           |
|---|-------|---------------|
| Biology and Biomaterials                          | UG    | Second        |
| Biology for Engineers                             | UG    | Fourth        |
| Engineering Chemistry                             | UG    | First         |
| Chemistry for Electrical Engineering              | UG    | Second        |
| Chemistry for Mechanical Engineering              | UG    | Second        |
| Polymer science and Technology                    | UG    | Third         |
| Environmental science and Engineering             | UG    | Second/Fourth |
| Chemistry of Electrical and Electronics Materials | UG    | Second        |

11. **Area of Research**

- Bio-Inorganic Chemistry
- Heavy metal sensor
- Metal organic frame work

12. **Funded Projects**

- Title of Project : Designing of novel benzothiazole derivatives and their Cu(II), Fe(II/III) and Al(III) complexes: Synthesis, structural characterization and biological exploration against distinct pathological factors in Alzheimer's disease
- Co-Principal Investigator : M.A. Neelakantan
- Funding Agency : DST (SERB)
- Amount : Rs.27,00,000
- Duration : Mar 2018-March-2021

### 13. Conference/Workshop/Symposium Organized

1. Webinar on biomimetic synthesis of bioceramics composites by Dr. Narayana Kalkura, Director, Crystal growth center, Anna University, Chennai on 17.08.2020
2. Webinar on "What they don't teach you at the Institute", by Mr.L. Gowri Shenbagaraman, AGM-HR, Ashok Leyland Chennai on 14.05.2020
3. AICTE sponsored a Three day's training Programme on "Training of Teachers for student Induction Programme" during May 9<sup>th</sup> to 11<sup>th</sup>, 2019.

### 14. List of Publications

1. M.A. Neelakantan, V. Latha, **S. Thalamuthu**, (2022), Polyaromatic ring containing  $\beta$ -diketone derivatives with antiproliferative activity toward human breast cancer cell lines: Synthesis, structure, DNA binding and molecular docking, Journal of Molecular Structure, 2022, 1249, 131573.
2. **S. Thalamuthu**, M.A. Neelakantan (2021) "Trinuclear nickel(II) amino acid Schiff base complex containing phenolato and acetato bridges: Structural and functional resemblance of urease, Inorganica Chimica Acta, doi: <https://doi.org/10.1016/j.ica.2020.120109>. Article (IF: 2.34).
3. C. Balakrishnan, M. Theetharappan, S. Natarajan, **S. Thalamuthu**, M.A. Neelakantan (2015) "Fluorescence response of a thiazolidine carboxylic acid derivative for the selective and nanomolar detection of Zn(II) ions: Quantum chemical calculations and application in real samples" RSC Advances, 5, pp. 105453-105463 (IF: 3.24).
4. L. Subha, C. Balakrishnan, **S. Thalamuthu**, M.A. Neelakantan, (2015), "Mixed ligand Cu(II) complexes containing o-vanillin-l-tryptophan Schiff base and heterocyclic nitrogen bases: synthesis, structural characterization, and biological properties". J. Coord. Chem. Vol. 68, pp. 1021-1039 (IF: 2.012).
5. **S. Thalamuthu**, B. Annaraj M.A. Neelakantan, (2014), A systematic investigation on biological activities of a novel double zwitterionic Schiff base Cu(II) complex, Spectrochim. Acta Part A, Vol.118, pp120-129.
6. P. Jeslin Kanaga Inba, B. Annaraj, **S. Thalamuthu**, M.A. Neelakantan, (2013), "Cu(II), Ni(II) and Zn(II) complexes of salen type ligand containing ester groups: Synthesis, characterization, electrochemical properties and invitro biological activities", Bioionorg. Chem. Appl., (IF: 1.167).
7. **S. Thalamuthu**, B. Annaraj, S. Vasudevan, and S. Sengupta, M.A. Neelakantan, (2013) "DNA binding, nuclease and colon cancer cell inhibitory activity of Cu(II) complex of a thiazolidine-4- carboxylic acid derivative", J. Coord. Chem., Vol.66, pp. 1805-1820. (IF:1.801).
8. P. Jeslin Kanaga Inba, B. Annaraj, **S. Thalamuthu**, M.A. Neelakantan, (2013) "Salen, reduced salen and N-alkylated salen type compounds: Spectral characterization, theoretical investigation and biological studies" Spectrochim. Acta Part A, Vol.104, pp. 300-309 (IF: 2.098).
9. A.C. Chamayou, M.A. Neelakantan, **S.Thalamuthu**, C. Janiak, (2011) "The first vitamin B6 zinc complex, pyridoxinato-zinc acetate: A 1D coordination polymer with polar packing through strong interchain hydrogen bonding", Inorg. Chim. Acta. Vol.365, pp.447-450 (IF: 1.846).
10. B.M. Draskovic, G.A. Bogdanovic, M.A. Neelakantan, A.C. Chamayou,**S. Thalamuthu**, Y.S. Avaghut, J.S. Gunne, Sharmila Banerjee, C. Janiak (2010) "N-o-Vanillidene-L-histidine: Experimental charge density analysis of a double zwitterionic amino acid Schiff-base compound" Crystal Growth & Design, Vol.10, pp.1665-1667 (IF: 4.720).
11. M.A. Neelakantan, M. Sundaram, **S. Thalamuthu**, M.S. Nair, (2010) "Synthesis, characterization, thermal and redox behavior and biological activity of Ni(II), Cu(II) and

- Zn(II) complexes containing Pyridoxine and Imidazole moieties”, J. Coord. Chem., Vol.63, pp. 1969 -1985 (IF: 1.547).
12. N. Raman, **S. Thalamuthu**, J. D. Raja, M.A. Neelakantan, Sharmila Banerjee (2007). “DNA Cleavage and Antimicrobial studies on Transition metal (II) complexes of 4-aminoantipyrine derivative”, J. Chil. Chem. Soc., Vol.52, pp.1314-1318 (IF: 0.532).

**15. PARTICIPATION IN WORKSHOP / FDP/CONFERENCE :**

- 1 Three day’s training Programme on “Training of Teachers for student Induction Programme” at International Institute of Information Technology, Gachibowli, Hyderabad, during May 16<sup>th</sup> to 18<sup>th</sup>, 2019.
- 2 one-week short term course on “**Smart Multifunctional Materials for Sensors and Actuators**”. Which will be held in the Department of Physics, Thiagarajar College of Engineering, Madurai during Mar7-13, 2019.
- 3 First International School on Radiation Research (ISRR-2017), conducted by Department of Biochemistry, Annamalai University, Feb.2-4, 2017
- 4 MHRD-DST initiative “4th Science Conclave: A Congregation of Nobel Laureates and Eminent Scientists” conducted by Indian Institute of Information Technology, Allahabad during Nov. 26<sup>th</sup> –Dec. 2<sup>nd</sup>, 2011.
- 5 Faculty Development programme on Current Trends in Organometallic Chemistry, conducted by Department of Chemistry, National Institute of Technology Calicut, Kozhikode, Kerala, India from 4<sup>th</sup>-8<sup>th</sup> July 2011.
- 6 Indian Academy of Sciences Bangalore, Indian National Science Academy new Delhi and The National Academy of Sciences, India, Allahabad sponsored Lecture workshop on Frontiers in Bioinorganic Chemistry, Conducted by Centre for Bioinorganic Chemistry, Bharathidasan University, Tiruchirappalli on Feb 25-27, 2010.
- 7 DST sponsored 2nd National Workshop on NMR Spectroscopy- Theory and Applications organized by School of Madurai Kamaraj University, Madurai on march 28 and 29, 2008
- 8 DST and FIST Sponsored National Conference on Recent Trends in Chemistry (NCRTC – 2007.) organized by P.G. & Research Department of Chemistry, Bishop heber College, Tiruchirappalli on 12<sup>th</sup> October 2007

**16. PAPERS PRESENTED IN INTERNATIONAL CONFERENCE**

- 1 **S.Thalamuthu**, S. Balaji, M.A. Neelakantan, Trinuclear amino acid Schiff base Ni(II) complex containing phenolato and acetate bridges mimicking urease activity, International conference “**Recent Trends in Catalysis - 2020 (RTC-2020)**”, during **26-29 February, 2020**.
- 2 **S.Thalamuthu**, M. Sundaram and M.A. Neelakantan, Colorimetric detection of Fe<sup>2+</sup> ion and Fluorometric detection of Zn<sup>2+</sup> ion with histidine based Schiff base in aqueous solution and its application in imaging HeLa cells, International Conference On Recent Trends in Analytical Chemistry (ICORTAC – 2015), University of Madras, Department of Analytical Chemistry, Chennai, Dec 28-30, 2015.
- 3 **B. Annaraj, S. Thalamuthu**, F. Rusal Raj, M.A. Neelakantan, Amino acid Schiff base Cu(II) and Zn(II) complexes: Synthesis, spectral characterization, thermal analysis, DNA binding and in-vitro antimicrobial activity, International Conference on Biological Inorganic Chemistry (ICBIC-2013), Department of Chemistry, Periyar University, Salem, 2013.
- 4 **Goran A. Bogdanović**, M. A. Neelakantan, Bojana M. Drašković, Anne-Christine Chamayou, **S. Thalamuthu**, Christoph Janiak, Experimental charge density study of intermolecular interactions in crystal structure of N-o-Vanillidene-L-histidine, Second Humboldt Conference on Noncovalent Interactions, Alexander Von Humboldt Stiftung/Foundation, VRŠAC, SERBIA, 2009

## 17. PAPERS PRESENTED IN NATIONAL CONFERENCE

- 1 **S.Thalamuthu**, L.Subha, B. Annaraj, M.A. Neelakantan, DNA Binding and Nuclease activity of Cu(II) complex of a thiazoldine -4-carboxylic acid derivatives, National symposium of recent advances in chemistry , Pondicherry University, Puducherry, Mar. 22nd and 23rd 2013.
- 2 **S.Thalamuthu**, L. Subha, F. Rusal Raj, B. Annaraj and M.A. Neelakantan, Spectral and DNA binding studies of Cu(II)-OVTRY-1,10-PHEN complexes, Recent Trends In Inorganic Materials, Chemistry Research Centre, National Engineering College, Kovilpatti, Mar. 9th and 10th 2012
- 3 **S. Thalamuthu**, M.A. Neelakantan and Sharmila Banerjee, Synthesis, Characterization and DNA binding properties of Co(II) and Cu(II) amino acid Schiff base complexes, Symposium on Modern Trends in Inorganic Chemistry (MTIC-XIII), Department of Inorganic and Physical Chemistry, IISC., Bangalore, Dec. 7-10, 2009.
- 4 **S. Thalamuthu**, M.A. Neelakantan and Sharmila Banerjee, Synthesis, Characterization and DNA binding properties of Cu(II)-3-methoxysalicylidene-D-penicillamine complexes, Indian Council of Chemists 28th Annual conference, Department of Chemistry, Hemachandracharya North Gujarat University, Patan Nov. 7-10, 2009.
- 5 **S.Thalamuthu**, M.A.Neelakantan, and M.Sundaram, Spectral and Thermal Characterization and Biological activities of copper(II)-pyridoxine- imidazole Containing ligands, Challenges in Front of Chemists in the Global Scenario, Department of Chemistry, Devanga Arts College, Aruppukottai, Sep 15 and 16 2008.
- 6 **S.Thalamuthu**, MA. Neelakantan and M.Sundaram, Mixed ligand complexes of Ni(II) and Zn(II) with pyridoxine and imidazole containing ligands in the solid state, Indian Council of Chemists 27th Annual conference, Department of Chemistry, Gurukul Kangri Vishwavidyalaya, Haridwar, Dec. 26-28 2008.
- 7 **S.Thalamuthu**, M.A.Neelakantan, S.S.Marriappan and J.Dharmaraja, Synthesis, Structural characterization, Morphology and Antimicrobial activities of Mn(II) and Zn(II) Schiff base complexes containing thiazole ring, Indian Council of Chemists 26th Annual conference, Department of Chemistry, Dr. H.S. Gour University, Sagar (M.P), Feb 26-28, 2008.

| 18. | ANY OTHER INFORMATIONS |  |                   |
|-----|------------------------|--|-------------------|
|     | 1                      | Chemistry Research Centre In charge  | 2010 to till Date |
|     | 2                      | Staff coordinator for Prime minister's Special Scholarship Scheme (PMSS) J&K | 2017 to till Date |
|     | 3                      | Staff coordinator for student Induction programme                            | 2018-2020         |
|     | 4                      | Staff Coordinator for Tamilnadu State Council for Science and technology     | 2019 to till Date |

(Dr.S. THALAMUTHU, M.Sc., M.Phil., Ph.D.,)