

CURRICULUM VITAE

Dr K . SANTHOSH @ BABU (PhD in Chemistry)

Post-Doctoral Researcher

College Of Chemistry And Molecular Sciences

Henan University

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Objective

Seeking to build strong knowledge and learning opportunities in a progressive and competitive work culture in the frontier area of research with Organic /Inorganic / Hybrid materials for various applications.

Education:

Degree	Specification	Institution	Grade	Class	Year of passing
Post-Doctoral	Chemistry	Henan University, Kaifeng, China	NA	NA	Present
Ph.D.	Chemistry	S.R.M. Institute of Science and Technology, Kattankulathur, Chengalpattu, Tamil Nadu, India.	NA	NA	2022
M.Sc.	Chemistry	V.H.N.S.N. College. (A), Virudhunagar, Madurai Kamaraj University, Tamil Nadu, India.	7.3 GPA	First	2014
B.Sc.	Chemistry	V.H.N.S.N. College., Virudhunagar, Madurai Kamaraj University, Tamil Nadu, India.	7.08 GPA	First	2012
12th (H.S.C.)	Mathematics - Computer Science	K.V.S. Hr, Sec School, Virudhunagar, Tamil Nadu, India.	73.3 %	First	2009
10th (S.S.L.C.)	Mathematics - Science	K.V.S. Hr, Sec School, Virudhunagar, Tamil Nadu, India.	65.4%	First	2007

Post-Doctoral Research Topic

Electrocatalytic C-C, C-O, and C-N coupling reactions

Ph.D. Chemistry Thesis:

Synthesis of Organic Molecules and Their Application in Dye-Sensitized Solar Cells for Conversion of Solar Energy into Electricity

M.Sc. Chemistry Thesis:

Metal Halide Salts of Protonated Morpholine: Synthesis, Crystal Structure, Molecular Characterisation, DFT & Td-DFT Calculation.

Working Experience

1. **Project Assistant -III**, C.S.I.R. CECRI-Karaikudi (03/2016 to 08/2017)
2. **Lecturer** in Chemistry, V.S.V.N. Polytechnic College, Virudhunagar. (06/2015 to 02/2016)
3. **Lab Chemist. (apprentices)** The Pandian chemicals limited, Cuddalore. (09/2014 to 05/2015)

Skills

- Well-experienced in the Design and synthesis of Organic. Inorganic materials
- Device fabrication for Solar Cell and Fuel Cell application
- Experience in Instrument handling experienceon
 - ❖ **UV, FT-IR, NMR, GC, CV, LSV, EIS, DSC, TGA, XRD, SEM**
 - ❖ **Chromatographic Techniques: T.L.C., CC, GC**
- Working knowledge of software: M.S. office, Chemdraw, Scifinder, Origin.

Achievement

- Published: **13** S.C.I. Journals, Total Citations: **102**, Average IF: **~5**, H-Index-**6**
- I serve as "**Editorial Board Member**" of the American Journal of Polymer Science and Technology (A.J.P.S.T.) ISSN Print: 2575-5978; ISSN Online: 2575-5986
- I serve as "**Reviewer Board Member**" of the Material Science & Engineering International Journal at MedCrave Group. eISSN: 2574-9927.
- As a "**Reviewer**", I had to reviewed a manuscript **ref ID : TB-ART-06-2023-001430** for "Journal of Materials Chemistry B".
- Secured Second prize as **Best Oral Presentation** in ETADS-2022, organized by Madurai Kamaraj University.
- I strongly support **Two Project Students** for completing the M.Sc project in Chemistry.

Research Interest

Significantly influence on the field of organic electronics in the energy domain

- Designing Approach on organic materials for OLED application.
- Conjugated polymer synthesis for various applications.
- The redox-active organic electrode materials possess high flexibility and reversible charge storage in the electrode of the energy storage system.
- Electrocatalytic application for C-C, C-N coupling reaction
- Dye-sensitized solar fuel D.S.S.F. devices for water-splitting systems with molecular light absorbers and catalysts to split water into hydrogen and oxygen or to reduce CO₂.

Personal Profile:

Communication Details

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Date of Birth: 06.10.1991

Gender: Male

Nationality: Indian

Marital Status: Married

Language Known: Tamil, English

Father Name : N. Kamaraj