SONA BIJU

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Education

ST. BERCHMANS COLLEGEMSc Polymer Chemistry. CGPA: 4.52

Changanassery, Kerala Aug 2022- May 2024

ASSUMPTION COLLEGEBSc Chemistry, CCPA: 9.59

Changanassery, Kerala Jun 2019 - May 2022

Research Experience

CSIR National Institute for Interdisciplinary Science and Technology Project Associate-1

Trivandrum, Kerala Sep 2024 - Present

- Conducted ongoing research focused on bio adhesives for plywood
- Employed advanced analytical techniques and experimental methodologies in the research process.
- Ongoing work under the development of biobased adhesives for plywood.
- Different methods are used to develop bio adhesive without volatile organic compound emission.
- Employed advanced analytical techniques and experimental methodologies in the research process.
- Presented research findings at conferences and seminars to share insights with the scientific community.

Industrial Experience

Kerala Irrigation Infrastructure Development Corporation Limited Packaged Drinking Water Plant Quality Control Chemist Trivandrum, Kerala

April 2024-Sep-2024

- Developed and implemented quality control procedures for raw materials, in process products and finished goods to ensure compliance with industry standards.
- Monitored and calibrated analytical equipment to ensure accuracy and precision of testing results.
- Performed environmental monitoring to ensure compliance with regulations and minimize contamination results.

Research Interests

- Development and characterization of advanced functional materials for energy, sustainability, and health applications.
- Nano chemistry approaches for designing and synthesizing nanomaterials with tailored properties for environmental and biomedical use.
- Interface engineering in organic and hybrid materials for solar cells, thermoelectrics, and wearable electronics.

Activities and Achievements

- Received the "Chief Minister Student Merit Award" from Hon Chief Minister of Kerala in January 2024.
- Participated Refresher Preparative Winter School at IISER Trivandrum.
- Attended National Seminar on Contemporary Topics in Chemistry at St Berchmans College Changanassery.

- Participated in IISF at IIT Guwahati.
- Participated in Poster presentation on Frontiers in Biomaterials and Crystallography.
- Attended National Symposium on Magnetic Resonance Theory Instrumentation and Application.
- Attended Skill Development Skill Development Training Program on Remote Sensing at CSIR NIIST

Publications

• Kamaraj, S., **Biju**, S., Radhakrishnan, V., & Tangellamudi, S. (2025). Development of bio-adhesives based on jackfruit leaf extract: a sustainable alternative with improved strength and antifungal properties for plywood applications. *Journal of Adhesion Science and Technology*, 1-23.

Skills & Interests

Language: English, Malayalam, French.

Laboratory: Analytical Techniques (quantitative and qualitative techniques), Instrumentation skills

(COD, BOD, UV-Vis Spectrometer, Micro GC NMR Interpretation and TKN Analyzer)

Interests: Gardening, Listening music, Sports.

References

1. Dr. Sam John

Assistant Professor, Department of Chemistry, St. Berchmans College

Changanassery.

Email: sam@sbcollege.ac.in

2. Er. Sravanth Tangellamudi

Senior Scientist, Environmental Technology Division, CSIR National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram.

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