## STUDIES ON RHEOLOGICAL PROPERTIES OF COLLAGEN CROSSLINKED WITH GLUTARALDEHYDE



# DEPARTMENT OF PG STUDIES AND RESEARCH IN CHEMISTRY SIR SYED COLLEGE, TALIPARAMBA – 670142

A Project Report Submitted by

ANUSREE K

REGISTER NUMBER: C2PSCH1406

In Partial Fulfilment of the Requirement for Degree of

MASTER OF SCIENCE IN CHEMISTRY



Under the guidance of

Dr. N. NISHAD FATHIMA

**Chief Scientist** 

CSIR-CENTRAL LEATHER RESEARCH INSTITUTE
ADYAR, CHENNAI 600 020
MARCH 2024



#### सीएसआईआर - केन्द्रीय चर्म अनुसंधान संस्थान CSIR - CENTRAL LEATHER RESEARCH INSTITUTE (वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद् Council of Scientific & Industrial Research) अडयार, चेन्नई, भारत Adyar, Chennai 600 020 India

डॉ. एन निशाद फातिमा Dr. N Nishad Fathima मुख्य वैज्ञानिक एवं प्रमुख Chief Scientist & Head रासायनिक प्रयोगशाला Inorganic and Physical Chemistry Laboratory

#### CERTIFICATE

This is to certify that Ms. ANUSREE K (Reg. No: C2PSCH1406) has worked on "STUDIES ON RHEOLOGICAL PROPERTIES OF COLLAGEN CROSSLINKED WITH GLUTARALDEHYDE" under my supervision at the Inorganic and Physical Chemistry Lab of CSIR-Central Leather Research Institute, Adyar, Chennai, during the period of December 2023 to March 2024, for the partial fulfillment of the Degree of Master of Science in Chemistry, from the Department of PG Studies and Research in Chemistry, Sir Syed College, Taliparamba, Kannur University, Kannur, Kerala, 670142.

N. NISHAD FATHIMA

Place: Chennai

Date: 21/05/2024 ·

हाँ. एत. निशाद फानिया Dr. N. NISHAD FATH MA मुजा वैनानिक तथा प्रमुख Chief Scientist & Hend यज्ञाविक एपं भौतिकी रस वन प्रणानकार Increante & Physical Chemistry Leberatory शीर तालाईआर - केन्द्रीय धर्म अनुत्रीयान श्रीकार CSIR - Central Leather Research Institute अस्पार, प्रेन्से Adyar, Cheminal-600 620.

# MICELLISATION, MIXED MICELLISATION AND THERMODYNAMIC PROPERTIES OF CETYLTRIMETHYLAMMONIUM BROMIDE AND 3- (N, N-DIMETHYLMYRISTYLAMMONIO) PROPANE SULFONATE



## DEPARTMENT OF PG STUDIES AND RESEARCH IN CHEMISTRY SIR SYED COLLEGE, TALIPARAMBA – 670142

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#### ANSARA C

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**MARCH 2024** 



## डॉ. मो. सायेम आलम Dr. Md. Sayem Alam

प्रधान वैज्ञानिक Principal Scientist पॉलीमर साइंस और प्रौद्योगिकी प्रयोगशाला Polymer Science & Technology Laboratory सीएसआईआर-केन्द्रीय बमड़ा अनुसंधान संस्थान CSIR-Central Leather Research Institute (वैज्ञानिक और औद्योगिक अनुसंधान परिषद Council of Scientific & Industrial Research) अड्यार, Adyar, चेन्नई Chennai - 600 020, भारत INDIA. 2: + 91 44 24437106 EXT: 7106 Fax: +91 44 24911589 E-mail: sayem@clri.res.in; sayemalam@gmail.com

### **CERTIFICATE**

This is to certify that Ms. Ansara. C (Reg. No: C2PSCH1405) has worked on "Micellisation, Mixed Micellisation and Thermodynamic Properties of Cetyltrimethylammonium Bromide and 3-(N, N-Dimethylmyristylammonio)propane Sulfonate" under my supervision at the Polymer Science and Technology Lab of CSIR-Central Leather Research Institute, Adyar, Chennai, during the period of December 2023 to March 2024, for the partial fulfillment of the Degree of Master of Science in Chemistry, from the Department of PG Studies and Research in Chemistry, Sir Syed College, Taliparamba, Kannur University, Kannur, Kerala, 670142.

(Dr. Md. Sayem Alam)

Place: Chennai

Dated: 1st March 2024

डॉ. मो: सायेम आलम Dr. MD. SAYEM ALAM
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## SINGLE ATOM CATALYST SUPPORTED ON N-DOPED GRAPHENE AS THE ELECTROCATALYST IN LITHIUM-SULFUR BATTERIES



## DEPARTMENT OF PG STUDIES AND RESEARCH IN CHEMISTRY SIR SYED COLLEGE, TALIPARAMBA – 670142

A Project Report Submitted by

**AMRUTHAAP** 

REGISTER NUMBER: C2PSCH1402

In Partial Fulfilment of the Requirement for Degree of

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Dr. Mudit Dixit, Senior Scientist & Assistant Professor (AcSIR), Centre for High Computing, CSIR-CLRI



#### CERTIFICATE

This is to certify that Ms. Amrutha AP (Reg. No: C2PSCH1402) has worked on "Single Atom Catalyst Supported On N-Doped Graphene As The Electrocatalyst In Li-S Batteries" under my supervision at the Advanced Material Lab of CSIR-Central Leather Research Institute, Adyar, Chennai, during the period of December 2023 to March 2024, for the partial fulfillment of the Degree of Master of Science in Chemistry, from the Department of PG Studies and Research in Chemistry, Sir Syed College, Taliparamba, Kannur University, Kannur, Kerala, 670142.

(Dr. Mudit Dixit)

र्वे. मुदित दीक्षित Dr. MUDIT DIXIT

Place: Chennai

Date: Thursday, 6 June 2024

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