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COLLEGE, ANCHAL

Affiliated to the University of Kerala  
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# BSc CHEMISTRY

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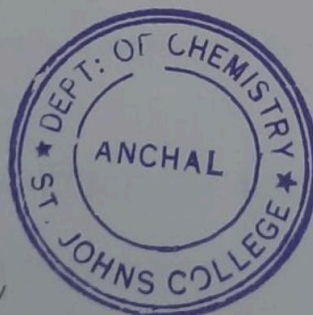
## DEPARTMENT OF CHEMISTRY



### CERTIFICATE

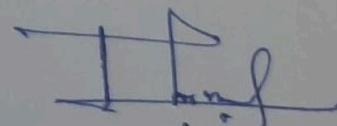
This is to certify that the project entitled "MOLECULAR DOCKING AND DFT STUDY OF NON-OPIOID ANALGESIC DRUG ACEMETACIN" is a work done by ALBIN ACHANKUNJU (23520138017), ANJITHA J. A (23520138019), POURNAMI R (23520138025) and SREEVIDHYA S (23520138014), who are the students of final year (6<sup>th</sup> Semester) BSc Chemistry, St. John's College, Anchal, in partial fulfilment for the requirements of the award of the degree of Bachelor of Science in Chemistry from University of Kerala and that no part of this project has been submitted earlier or elsewhere for similar purpose.

Dr. LIJI JOHN  
Assistant Professor  
Department of Chemistry  
St. John's College, Anchal



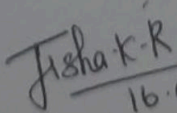
  
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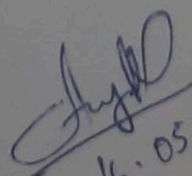
Dr. Thomas Mathew  
The Head, Department of Chemistry  
St. John's College, Anchal

  
Signature

*Submitted to the University of Kerala for the award of BSc degree examination,  
March 2023*

Signature of Examiners:

1:   
16.05.23

2:   
16.05.2023

Date:

**St. John's College, Anchal, Kollam-691 306, Kerala**

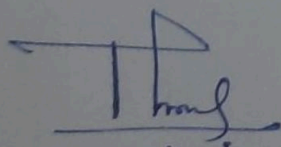
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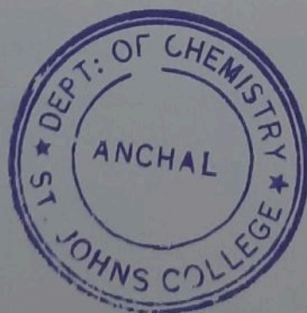
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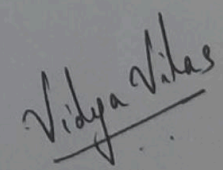
Dt. 31.03.2023

**CERTIFICATE**

This is to certify that, the project entitled "SYNTHESIS OF SILVER NANOPARTICLES USING AQUEOUS LEAF EXTRACT OF *Myristica fragrans*" submitted by Kavya K Kutty (235-20138006), Soorya Siva RB (235-20138030), Aleena Rachel Saji (235-20138032) and Merin John (235-20138033) to University of Kerala is the work done under my supervision and guidance in the Department of Chemistry, St. John's College, Anchal. It is further certified that this dissertation or any part thereof has not been submitted elsewhere for any other degree.

  
**Head**



  
**Supervising Teacher**



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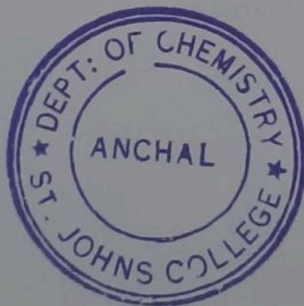
This is to certify that the project entitled "COMPARISON OF ACTIVITY OF TITANIUM INCORPORATED ALUMINA CATALYST FOR METHYLENE BLUE DYE DEGRADATION IN PRESENCE OF UV LIGHT AND WHITE LIGHT" is a work done by ALFINA SAMAD (Reg. No. 23520138018), ANUSREE M.S. (Reg. No. 23520138002), NOORA N. (Reg. No. 23520138010) and AKSHAYA S. (Reg. No. 23520138016) who are the students of final year (6<sup>th</sup> Semester) B.Sc. Chemistry, St. Johns College, Anchal, in partial fulfilment for the requirements of the award of the degree of Bachelor in Chemistry from University of Kerala and that no part of this project has been submitted earlier or elsewhere for similar purpose.

Ms. Simi Saju

Assistant Professor

Department of Chemistry

St. John's College, Anchal



*Simi Saju*  
28/03/23  
Signature

Dr. Thomas Mathew

The Head, Department of Chemistry

St. John's College, Anchal

*Thomas Mathew*  
Signature

Submitted to the University of Kerala for the award of B.Sc. degree examination, March 2023

Signature of Examiners:

1: *Jishak R*  
16.05.23

2: *Arjun*  
16.05.23

Date: 28/03/2023



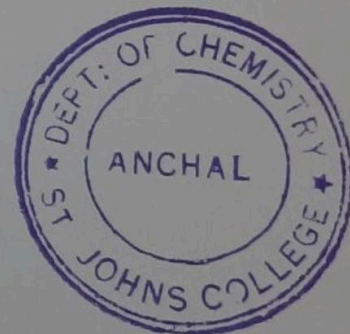
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## CERTIFICATE

This is to certify that the project entitled "SYNTHESIS AND SPECTROSCOPIC STUDIES OF A SCHIFF BASE LIGAND AND ITS NICKEL (II) COMPLEX" is a work done by DINAKA M V (Reg. No. 23520138004), SHEFINA S (Reg. No. 23520138011), B BHAGYANATH (Reg. No. 23520138020), SHILPA SASI (Reg. No. 23520138029) who are the students of final year (6<sup>th</sup> Semester) B.Sc. Chemistry, St. Johns College, Anchal, in partial fulfillment for the requirements of the award of the degree of Bachelor in Chemistry from University of Kerala and that no part of this project has been submitted earlier or elsewhere for similar purpose.

Dr. Niecy Elsa Mathews  
Assistant Professor  
Department of Chemistry  
St. John's College Anchal

Signature



Dr. Thomas Mathew  
The Head, Department of Chemistry  
St. John's College Anchal

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Submitted to the University of Kerala for the award of B.Sc. degree examination, March 2023.

Signature of Examiners:

1:   
16.05.23

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16.05.23

Date: 09/05/2023



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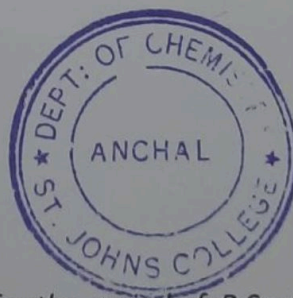
## CERTIFICATE

This is to certify that the project entitled "SEM and EDS ANALYSIS OF FLY ASH" is a work done by JYOTHIKA S (Reg. No 23520138005), SHEHNA S (Reg. No. 23520138012), SOFIA SARA BAJI (Reg. No. 23520138013), JIBIN JOY (Reg. No. 23520138022) who are the students of final year (6<sup>th</sup> Semester) BSc Chemistry, St. Johns College, Anchal, in partial fulfilment for the requirements of the award of the degree of Bachelor in Chemistry from University of Kerala and that no part of this project has been submitted earlier or elsewhere for similar purpose.

Dr. Manoj S.  
Guest Lecturer  
Department of Chemistry  
St. John's College Anchal

Signature

Dr Thomas Mathew  
The Head, Department of Chemistry  
St. John's College, Anchal



Signature

Head of the Department  
Department of Chemistry  
St. John's College  
Anchal - 691306

Submitted to the University of Kerala for the award of B.Sc degree examination,  
March 2023

Signature of Examiners:

1: Jisha K.R.  
16.05.23

2: [Signature]  
16.05.23

Date:

Department of Chemistry

Arun, P. S.  
Assistant Professor



St. John's College

(Accredited with 'A' grade by NAAC)

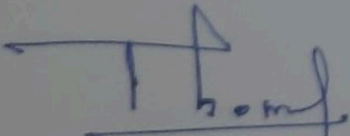
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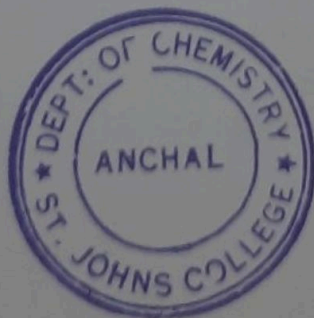
Email: [arunpsvimd@gmail.com](mailto:arunpsvimd@gmail.com)

### CERTIFICATE

This is to certify that the dissertation work entitled “Development of  $\text{TiO}_2\text{-Fe}_2\text{O}_3/\text{NiP}$  panel type catalyst for highly efficient photocatalytic water splitting” submitted by LINSON DANIEL(23520138007), AKSHARA MOHAN (23520138015), SAFIN NAVAS (23520138027) and SAHANA HUMAM ( 23520138028) to the University of Kerala, May 2023 in partial requirement of the Degree of Bachelor of Science in Chemistry is an authentic record of the work carried out by them under my direct supervision and guidance. It is further certified that this dissertation or any part thereof has not been presented before for any other degree.

  
Head of the department

  
Arun, P. S.

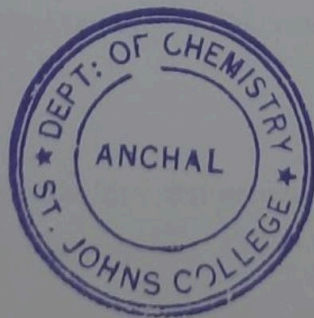


## DEPARTMENT OF CHEMISTRY

### CERTIFICATE

This is to certify that that dissertation work entitled "*Synthesis, Characterization and Photocatalytic application of CaTiO<sub>3</sub> Nanoparticles*" here with submitted by Aswin A Kumar (235-20138003), Megha Mariam Saji (235-20138008), Nandana S. R. (235-20138009), Najuma Noushad (235-20138023) for the partial fulfilment of the requirements for the award of degree of Bachelor of Science in Chemistry of the University of Kerala is an authentic record of work carried out by them under the supervision of Dr. Thomas Mathew, Assistant Professor and Head of Department, Department of Chemistry, St. John's College, Anchal and that no part has been presented before for any other degree.

Date: 13/05/2023



**Dr. Thomas Mathew**  
Assistant Professor and  
Head of the Department  
Department of Chemistry  
St. John's College Anchal

Signature of Examiners:

1: Jisha.K.R  
16.05.23

2: [Signature]  
16.05.23