#### "SYNTHESIS AND CHARACTERIZATION OF Chromium (III) oxalato complexes"



# Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

## UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

**SWASTIKA SAIKIA** 

**ROLL NO.: 10520141** 

**REGISTRATION NO.: S1520906** 

Mr. Jyoti Prasad Dutta, M.Sc, M.Phil

Department Of Chemistry

D.R. College,

Golaghat

This is to certify that the project "Synthesis and Characterization of Chromium (III) oxalato complexes" submitted by Swastika Saikia, a student of 6<sup>th</sup> semester bearing Roll No. 10520141, Registration No.S1520906 Of D.R. College, Golaghat has been completed under my supervision. The project report is the result of his/her own investigation and he/she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

Mr. Jyoti Prasad Dutta

## "SYNTHESIS AND CHARACTERIZATION OF Chromium (III) oxalato complexes"



## Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

## UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

**KULDIP SAIKIA** 

**ROLL NO.: 10520040** 

**REGISTRATION NO.: S1520809** 

Mr. Jyoti Prasad Dutta, M.Sc, M.Phil

Department Of Chemistry

D.R. College,

Golaghat

This is to certify that the project "Synthesis and Characterization of Chromium (III) oxalato complexes" submitted by Kuldip Saikia, a student of 6<sup>th</sup> semester bearing Roll No. 10520040, Registration No.S1520809 Of D.R. College, Golaghat has been completed under my supervision. The project report is the result of his/her own investigation and he/she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

Mr. Jyoti Prasad Dutta

#### "SYNTHESIS AND CHARACTERIZATION OF Chromium (III) oxalato complexes"



# Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

## UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

HIRAN JAFRI AHMED

**ROLL NO.: 10520032** 

**REGISTRATION NO.: S1520793** 

Mr. Jyoti Prasad Dutta, M.Sc, M.Phil

Department Of Chemistry

D.R. College,

Golaghat

This is to certify that the project "Synthesis and Characterization of Chromium (III) oxalato complexes" submitted by Hiran Jafri Ahmed, a student of 6<sup>th</sup> semester bearing Roll No. 10520032, Registration No.S1520793 Of D.R. College, Golaghat has been completed under my supervision. The project report is the result of his/her own investigation and he/she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

Mr. Jyoti Prasad Dutta

#### "SYNTHESIS AND CHARACTERIZATION OF Chromium (III) oxalato complexes"



## Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH
(As per Syllabus of 6th Semester, Major DU)

Submitted By:

RINKI KALITA

ROLL NO.: 10520132

**REGISTRATION NO.: S1520877** 

Mr. Jyoti Prasad Dutta , M.Sc, M.Phil Department Of Chemistry
D.R. College,

Golaghat

This is to certify that the project "Synthesis and Characterization of Chromium (III) oxalato complexes" submitted by Rinki Kalita, a student of 6<sup>th</sup> semester bearing Roll No. 10520132, Registration No.S1520877 Of D.R. College, Golaghat has been completed under my supervision. The project report is the result of his/her own investigation and he/she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

Mr. Jyoti Prasad Dutta

# "ARSENIC REMOVAL FROM AQUEOUS SOLUTION USING POWDERED ACTIVATED CARBON"



Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH
(As per Syllabus of 6th Semester, Major DU)

Submitted By:

**BIPASHA SAIKIA** 

**ROLL NO.: 10520102** 

**REGISTRATION NO.: S1520767** 

Dr. Nripan kr. Boruah, M.SC, PhD(GU).

Associate Professor

Dept. of Chemistry

D.R.College, Golaghat.

This is to certify that the project entitled "Arsenic removal from aqueous solution using powdered activated carbon" submitted by Miss Bipasha Saikia a student of 6<sup>th</sup> semester bearing Roll No. 10520102, Registration No. S1520767 of D.R.College centre, Golaghat has been completed under my supervision at D.R.College, Golaghat. The project report is the result of his/her own investigation and he/she has fulfilled all the requriments prescribed under the project regulation of Dibrugarh University syllabus of 6<sup>th</sup> semester.

3175/18

(Dr. N K Boruah)

Date: 31-05-2018

Place: Golaghat

# "ARSENIC REMOVAL FROM AQUEOUS SOLUTION USING POWDERED ACTIVATED CARBON"



# Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

## UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

**KOUSTOB BORAH** 

**ROLL NO.: 10520039** 

**REGISTRATION NO.: S1520807** 

Dr. Nripan kr. Boruah, M.SC, PhD(GU).

Associate Professor

Dept. of Chemistry

D.R.College, Golaghat.

This is to certify that the project entitled "Arsenic removal from aqueous solution using powdered activated carbon" submitted by Mr Koustob Borah a student of 6<sup>th</sup> semester bearing Roll No. 10520039, Registration No. S1520807 of D.R.College centre, Golaghat has been completed under my supervision at D.R.College, Golaghat. The project report is the result of his/her own investigation and he/she has fulfilled all the requriments prescribed under the project regulation of Dibrugarh University syllabus of 6<sup>th</sup> semester.

15/18 25/18

(Dr. N K Boruah)

Date: 31-05-2018

Place: Golaghat

# "ARSENIC REMOVAL FROM AQUEOUS SOLUTION USING POWDERED ACTIVATED CARBON"



# Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

## UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

PRACHURJYA SAIKIA

**ROLL NO.: 10520066** 

**REGISTRATION NO.: S1520854** 

Dr. Nripan kr. Boruah, M.SC, PhD(GU).

**Associate Professor** 

Dept. of Chemistry

D.R.College, Golaghat.

This is to certify that the project entitled "Arsenic removal from aqueous solution using powdered activated carbon" submitted by Mr. Prachurjya Saikia a student of 6th semester bearing Roll No. 10520066, Registration No. S1520854 of D.R.College centre, Golaghat has been completed under my supervision at D.R.College, Golaghat. The project report is the result of his/her own investigation and he/she has fulfilled all the requriments prescribed under the project regulation of Dibrugarh University syllabus of 6th semester.

(Dr. N K Boruah)

Date: 31-05-2018

Place: Golaghat

# "ARSENIC REMOVAL FROM AQUEOUS SOLUTION USING POWDERED ACTIVATED CARBON"



## Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

## UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

PROTIMA GOGOI

ROLL NO.: 10520128

**REGISTRATION NO.: S1520865** 

Dr. Nripan kr. Boruah, M.SC, PhD(GU).

Associate Professor

Dept. of Chemistry

D.R.College, Golaghat.

This is to certify that the project entitled "Arsenic removal from aqueous solution using powdered activated carbon" submitted by Miss Protima Gogoi a student of 6<sup>th</sup> semester bearing Roll No. 10520128, Registration No. \$1520865 of D.R.College centre, Golaghat has been completed under my own investigation and he/she has fulfilled all the requriments prescribed under the project regulation of Dibrugarh University syllabus of 6<sup>th</sup> semester.

(Dr. N K Boruah)

Date: 31-05-2018

Place: Golaghat

# "ARSENIC REMOVAL FROM AQUEOUS SOLUTION USING POWDERED ACTIVATED CARBON"



## Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

## UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

ANINDITA SAIKIA

ROLL NO.: 10520094

REGISTRATION NO.: S1520740

Dr. Nripan kr. Boruah, M.SC, PhD(GU).

Associate Professor

Dept. of Chemistry

D.R.College, Golaghat.

This is to certify that the project entitled "Arsenic removal from aqueous solution using powdered activated carbon" submitted by Miss Anindita Saikia a student of 6<sup>th</sup> semester bearing Roll No. 10520094, Registration No. S1520740 of D.R.College centre, Golaghat has been completed under my supervision at D.R.College, Golaghat. The project report is the result of his/her own investigation and he/she has fulfilled all the requriments prescribed under the project regulation of Dibrugarh University syllabus of 6<sup>th</sup> semester.

31/5/18

(Dr. N K Boruah)

ate: 31-05-2018

lace: Golaghat

# "ARSENIC REMOVAL FROM AQUEOUS SOLUTION USING POWDERED ACTIVATED CARBON"



# Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

PROSTUTI PARASHOR

**ROLL NO.: 10520127** 

**REGISTRATION NO.: S1520864** 

Dr. Nripan kr. Boruah, M.SC, PhD(GU).

Associate Professor

Dept. of Chemistry

D.R.College, Golaghat.

This is to certify that the project entitled "Arsenic removal from aqueous solution using powdered activated carbon" submitted by Miss Prostuti Parashor a student of 6<sup>th</sup> semester bearing Roll No. 10520127, Registration No. S1520864 of D.R.College centre, Golaghat has been completed under my supervision at D.R.College, Golaghat. The project report is the result of his/her own investigation and he/she has fulfilled all the requriments prescribed under the project regulation of Dibrugarh University syllabus of 6<sup>th</sup> semester.

51/5/18

(Dr. N K Boruah)

Date: 31-05-2018

Place: Golaghat

#### "Isolation and Characterization of Cellulose Fibers from Nahar Seed Buckles"



# Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

#### UNDER DIBRUGARH UNIVERSITY, DIBRUGARH

(As per Syllabus of 6th Semester, Major DU)

Submitted By:

MISS ANKIPRIYA BARUAH

ROLL NO.: 10520097

**REGISTRATION NO.: S1520742** 

This is to certify that the project entitled "Isolation and characterization of cellulose fibers from nahar seed buckles" submitted by, a student of 6<sup>th</sup> semester Miss Ankipriya Baruah bearing Roll: 105,NO: 20097 of D.R. College centre (Centre Code:105 under DU), Golaghat has been completed under my supervision at D.R. College, Golaghat. The project report is the result of his/ her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

Snaw Eng.
(Mr. Bedanta Kr. Borah)

"Isolation and Characterization of Cellulose Fibers from Nahar Seed Buckles"



Submitted to the DEPARTMENT OF CHEMISTRY,

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH
(As per Syllabus of 6th Semester, Major DU)

D.R. COLLEGE GOLAGHAT

Submitted By:

SRI SUBHASISH SAIKIA

ROLL NO.: 10520084

REGISTRATION NO.: \$1520899

This is to certify that the project entitled "Isolation and characterization of cellulose fibers from nahar seed buckles" submitted by Sri Subhasish Saikia, a student of 6<sup>th</sup> semester bearing Roll: 105, No: 20084 of D.R. College centre (Centre Code:105 under DU), Golaghat has been completed under my supervision at D.R. College, Golaghat. The project report is the result of his/ her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

Want Bu. (Mr. Bedanta Kr. Borah)

"Isolation and Characterization of Cellulose Fibers from Nahar Seed Buckles"



# Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH
(As per Syllabus of 6th Semester, Major DU)

Submitted By:

SRI BHASKAR JYOTI BORA

ROLL NO.: 10520014

**REGISTRATION NO.: S1520760** 

This is to certify that the project entitled "Isolation and characterization of cellulose fibers from nahar seed buckles" submitted by Sri Bhaskar Jyoti Bora, a student of 6th semester bearing Roll: 105, NO....of D.R. College centre (Centre Code:105 under DU), Golaghat has been completed under my supervision at D.R. College, Golaghat. The project report is the result of his/ her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6th semester.

Date: 31/05/2018

Place: Golaghat

Evaculs En. (Mr. Bedanta Kr. Borah)

"Isolation and Characterization of Cellulose Fibers from Nahar Seed Buckles"



Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

SRI SUDIPTA CHAKROBORTY

ROLL NO.: 10520085

REGISTRATION NO.: S1520901

This is to certify that the project entitled "Isolation and characterization of cellulose fibers from nahar seed buckles" submitted by Sri Sudipta Chakroborty, a student of 6<sup>th</sup> semester bearing Roll: 105, NO: 20085 of D.R. College centre (Centre Code:105 under DU), Golaghat has been completed under my supervision at D.R. College, Golaghat. The project report is the result of his/ her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6th semester.

Date: 31/05/2018

Place: Golaghat

Traul By (Mr. Bedanta Kr. Borah)

"Isolation and Characterization of Cellulose Fibers from Nahar Seed Buckles"



Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH
(As per Syllabus of 6th Semester, Major DU)

Submitted By:

SRI BEDANTA MADHAV GOGOI

ROLL NO.: 10520011

REGISTRATION NO.: S1520756

This is to certify that the project entitled "Isolation and characterization of cellulose fibers from nahar seed buckles" submitted by Sri Bedanta Madhav Gogoi, a student of 6<sup>th</sup> semester bearing Roll: 105, NO: 20011 of D.R. College centre (Centre Code:105 under DU), Golaghat has been completed under my supervision at D.R. College, Golaghat. The project report is the result of his/ her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

(Mr. Bedanta Kr. Borah)

"Isolation and Characterization of Cellulose Fibers from Nahar Seed Buckles"



Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

SRI DAVID BORA

ROLL NO.: 10520022

**REGISTRATION NO.:** S1520775

This is to certify that the project entitled "Isolation and characterization of cellulose fibers from nahar seed buckles" submitted by Sri David Bora, a student of 6<sup>th</sup> semester bearing Roll: 105, NO: 20022 of D.R. College centre (Centre Code:105 under DU), Golaghat has been completed under my supervision at D.R. college, Golaghat. The project report is the result of his/ her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

(Mr. Bedanta Kr. Borah)

#### Phytoremediation:

### A Process for Arsenic Removal from Aqueous Solution



This Project Work has been submitted to the Department of Chemistry, D. R. College, Golaghat, Assam for the partial fulfillment of the Award of Bachelors Degree of Science under Dibrugarh University.

[As per syllabus of 6th Semester (Major), Dibrugarh University]

#### Submitted by:

Debasish Handique

6<sup>th</sup> Semester (Chemistry Major) Roll No.: 10520024

Registration No.: S1520779

This is to certify that the Project Work entitled "Phytoremediation: A Process for Arsenic Removal from Aqueous Solution submitted by DebasishHandique, a student of B.Sc. (Major Chemistry), D.R. College under DU has been completed under my supervision. This work is the result of his own investigation and to any other institution of University for a degree or diploma.

Date: 31/05/2018

Yours Faithfully,

(D.R. MridulChetia)

Assistant Professor, Chemistry

D.R. College, Golaghat-785621 (Assam)

### Phytoremediation:

### A Process for Arsenic Removal from Aqueous Solution



This Project Work has been submitted to the Department of Chemistry, D. R. College, Golaghat, Assam for the partial fulfillment of the Award of Bachelors Degree of Science under Dibrugarh University.

[As per syllabus of 6th Semester (Major), Dibrugarh University]

Submitted by:

Srimanta Gogoi

6th Semester (Chemistry Major)

Roll No.: 10520081

Registration No.: S1520897

This is to certify that the Project Work entitled "Phytoremediation: A Process for Arsenic Removal from Aqueous Solution" submitted by SrimantaGogoi, a student of B.Sc. (Major Chemistry), D.R. College under DU has been completed under my supervision. This work is the result of his own investigation and to any other institution of University for a degree or diploma.

Date: 31/05/2018

Yours Faithfully,

Object 05/2018

D.R. MridulChetia

Assistant Professor, Chemistry

D.R. College, Golaghat-785621 (Assam)

## Phytoremediation:

# A Process for Arsenic Removal from Aqueous Solution



This Project Work has been submitted to the Department of Chemistry, D. R. College, Golaghat, Assam for the partial fulfillment of the Award of Bachelors Degree of Science under Dibrugarh University.

[As per syllabus of 6th Semester (Major), Dibrugarh University]

Submitted by:

Pahari Phukan

6th Semester (Chemistry Major)

Roll No.: 10520120

Registration No.: S1520843

#### CERTIFICATE

This is to certify that the Project Work entitled "Phytoremediation: A Process for Arsenic Removal from Aqueous Solution" submitted by PahariPhukan, a student of B.Sc. (Major Chemistry), D.R. College under DU has been completed under my supervision. This work is the result of his own investigation and to any other institution of University for a degree or diploma.

Date: 31/05/2018

Yours Faithfully,

D. D. M.: 1 161 1: 31 05 218

D.R. MridulChetia)

Assistant Professor, Chemistry

D.R. College, Golaghat- 785621 (Assam)

## Phytoremediation:

## A Process for Arsenic Removal from Aqueous Solution



This Project Work has been submitted to the Department of Chemistry, D. R. College, Golaghat, Assam for the partial fulfillment of the Award of Bachelors Degree of Science under Dibrugarh University.

[As per syllabus of 6th Semester (Major), Dibrugarh University]

Submitted by:

Tapanjit Borah

6<sup>th</sup> Semester (Chemistry Major)

Roll No.: 10520088

Registration No.: S1520908

#### CERTIFICATE

This is to certify that the Project Work entitled "Phytoremediation: A Process for Arsenic Removal from Aqueous Solution" submitted by Tapanjit Borah, a student of B.Sc. (Major Chemistry), D.R. College under DU has been completed under my supervision. This work is the result of his own investigation and to any other institution of University for a degree or diploma.

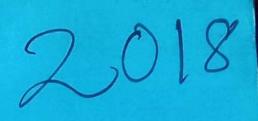
Date: 31/05/2018

Yours Faithfully,

(D.R. MridulChetia)

Assistant Professor, Chemistry

D.R. College, Golaghat- 785621 (Assam)



"Crystallinity and Thermal Behaviour of Nanocellulose obtained from Deoiled Nahar Seed Powder"



Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH
(As per Syllabus of 6th Semester, Major DU)

Submitted By:

SRI HARI CHHETRY

ROLL NO.: 10520031

**REGISTRATION NO.: S1520791** 



Dr. Suvangshu Dutta, M.Sc. (GU), Ph. D. (TU)

Sr. Asst. Professor, Dept. of Chemistry

D. R. College, Golaghat

Email: suvangshudrc@gmail.com Phone: 7002516410, 9435045777

Whatsapp: 9854537587

#### CERTIFICATE

This is to certify that the project entitled "Crystallinity and thermal behavior of nanocellulose obtained from deoiled nahar seed powder" submitted by Sri Hari Chhetry, a student of 6<sup>th</sup> semester bearing Roll:105, No 20031 of D.R. College centre (Centre Code: 105 under DU), Golaghat has been completed under my supervision at D.R. College, Golaghat. The project report is the result of his/ her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018 (Dr. Suvangshu Dutta)

Place: Golaghat

"Crystallinity and Thermal Behaviour of Nanocellulose obtained from Deoiled Nahar Seed Powder"



Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

#### UNDER DIBRUGARH UNIVERSITY, DIBRUGARH

(As per Syllabus of 6th Semester, Major DU)

Submitted By:

MD. RUPKUL ISLAM

ROLL NO.: 10520075

**REGISTRATION NO.: S1520883** 



Dr. Suvangshu Dutta, M.Sc. (GU), Ph. D. (TU)

Sr. Asst. Professor, Dept. of Chemistry

D. R. College, Golaghat

Email: suvangshudrc@gmail.com Phone: 7002516410, 9435045777

Whatsapp: 9854537587

#### CERTIFICATE

This is to certify that the project entitled "Crystallinity and thermal behavior of nanocellulose obtained from deoiled nahar seed powder" submitted by Sri Rupkul Islam, a student of 6<sup>th</sup> semester bearing Roll:105, No 20075 of D.R. College centre (Centre Code: 105 under DU), Golaghat has been completed under my supervision at D.R. College, Golaghat. The project report is the result of his/her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

(Dr. Suvangshu Dutta)

"Crystallinity and Thermal Behaviour of Nanocellulose obtained from Deoiled Nahar Seed Powder"



Submitted to the
DEPARTMENT OF CHEMISTRY,
D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH (As per Syllabus of 6th Semester, Major DU)

Submitted By:

SRI NILUTPAL SINGHA

**ROLL NO.: 10520056** 

**REGISTRATION NO.: S1520836** 



Dr. Suvangshu Dutta, M.Sc. (GU), Ph. D. (TU)

Sr. Asst. Professor, Dept. of Chemistry

D. R. College, Golaghat

Email: suvangshudrc@gmail.com Phone: 7002516410, 9435045777

Whatsapp: 9854537587

#### CERTIFICATE

This is to certify that the project entitled "Crystallinity and thermal behavior of nanocellulose obtained from deoiled nahar seed powder" submitted by Sri Nilutpal Singha, a student of 6<sup>th</sup> semester bearing Roll:105, No 20056 of D.R. College centre (Centre Code: 105 under DU), Golaghat has been completed under my supervision at D.R. College, Golaghat. The project report is the result of his/her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6<sup>th</sup> semester.

Date: 31/05/2018

Place: Golaghat

(Dr. Suvangshu Dutta)

"Crystallinity and Thermal Behaviour of Nanocellulose obtained from Deoiled Nahar Seed Powder"



Submitted to the DEPARTMENT OF CHEMISTRY, D.R. COLLEGE GOLAGHAT

UNDER DIBRUGARH UNIVERSITY, DIBRUGARH
(As per Syllabus of 6th Semester, Major DU)

Submitted By:

SRI JAYANTA RAJBONSHI

ROLL NO.: 10520034

REGISTRATION NO.: S1520796



Dr. Suvangshu Dutta, M.Sc. (GU), Ph. D. (TU) Sr. Asst. Professor, Dept. of Chemistry D. R. College, Golgabat

Email: suvangshudrc@gmail.com

Phone: 7002516410, 9435045777 Whatsapp: 9854537587

## CERTIFICATE

This is to certify that the project entitled "Crystallinity and thermal behavior of nanocellulose obtained from deoiled nahar seed powder" submitted by Sri Jayanta Rajbonshi, a student of 6th semester bearing Roll:105, No 20034 of D.R. College centre (Centre Code: 105 under DU), Golaghat has been completed under my supervision at D.R. College, Golaghat. The project report is the result of his/her own investigations and he/ she has fulfilled all the requirements prescribed under the project regulations of Dibrugarh University syllabus of 6th semester.

Date: 31/05/2018

Place: Golaghat

(Dr. Suvangshu Dutta