

# UNIVERSITY OF NORTH BENGAL

*Accredited by NAAC with grade "A"*

---

**Prof. P. Ghosh**

Department of Chemistry  
University of North Bengal  
Darjeeling - 734013, India



ENLIGHTENMENT TO PERFECTION

Ph: +91 3532776381 (off)  
+91 9474441468 (M)  
Fax: +91 3532699001  
Email: [pjzy12@yahoo.com](mailto:pjzy12@yahoo.com)

---

## CERTIFICATE

I certify that **Mr. Rabindranath Singha** has prepared the thesis entitled “**Chemical transformation of Carbocyclic Compounds and Development of Novel Reaction Protocols**”, for the award of Ph.D. Degree of the University of North Bengal, under my guidance. He has carried out the research work at the Department of Chemistry, University of North Bengal. No part of this thesis has formed the basis for the award of any degree or fellowship previously.

**Prof. Pranab Ghosh**

Department of Chemistry  
University of North Bengal  
Darjeeling - 734013  
West Bengal, India  
Date: 18.02.2021

*Professor  
Department of Chemistry  
University of North Bengal  
Darjeeling - 734013, India*

## Urkund Analysis Result

**Analysed Document:** Rabindranath Singha\_Chemistry.pdf (D94021674)  
**Submitted:** 1/29/2021 12:13:00 PM  
**Submitted By:** nbuplg@nbu.ac.in  
**Significance:** 3 %

### Sources included in the report:

81a18a37-f837-4474-9c3e-7f496090d2dd  
<https://pubs.rsc.org/en/content/getauthorversionpdf/C5RA07798B>  
[http://www.unn.edu.ng/publications/files/images/ljeomah\\_Augustina%20Project.pdf](http://www.unn.edu.ng/publications/files/images/ljeomah_Augustina%20Project.pdf)  
<https://d-nb.info/105216062X/34>

### Instances where selected sources appear:

7

  
18.02.2021

*Professor  
Department of Chemistry  
University of North Bengal  
Darjeeling - 734013, India*

*Rabindranath Singha  
18.02.2021*