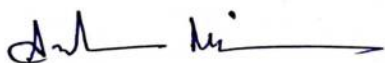


CERTIFICATE

I certify that the thesis entitled “**Theoretical Investigation of Optical and Spectroscopic Properties of Organometallic Complexes and Design of Improved Electroluminescent Materials**” has been prepared by Manoj Majumder, for the award of Ph.D degree of the University of North Bengal, under my guidance. He has carried the 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.



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DATE: 23/08/2018

Urkund Analysis Result

Analysed Document: Manoj_chemistry .pdf (D40834885)
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Sources included in the report:

https://www.researchgate.net/publication/283301167_Second-order_nonlinear_optical_properties_of_transition_metal_complexes
<https://arxiv.org/pdf/1509.01532>
<http://www.theses.fr/2012ENSL0736.pdf>

Instances where selected sources appear:

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Manoj Majumder
Signature of Candidate

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Signature of Supervisor

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Signature of the Head of the Department with Seal