

## **TEZPUR UNIVERSITY**

(A Central University)

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## **Certificate of the Supervisor**

This is to certify that the thesis entitled, "Studies on the development of palladium and copper based nanocatalysts for sustainable Suzuki-Miyaura, Sonogashira and Chan-Lam cross-coupling reaction." submitted to the School of Science, Tezpur University in part fulfillment for the award of the Doctor of Philosophy in Chemical Sciences is a record of research work carried out by Mr. Raju Kumar Borah under my supervision and guidance.

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No part of this thesis has been submitted elsewhere for award of any other degree.

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