



तेजपुर विश्वविद्यालय

(केंद्रीय विश्वविद्यालय)

नपाम, तेजपुर - 784 028, असम, भारत

TEZPUR UNIVERSITY

(A Central University)


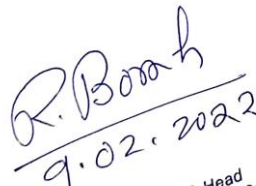
Napam, Tezpur - 784 028, Assam, India

Department of Chemical Sciences

A REPORT ON

Collaboration Gifu Pharmaceutical University, Japan

1. Name of the Collaborative Activity: Collaborative activity with Professor H. Sajiki, Gifu Pharmaceutical University, Japan
2. Nature of Activity: R&D
3. Name of the Collaborating Agency/ Individual with affiliation, and contact details: Professor H. Sajiki and Utpal Bora
4. Summary of collaboration:
Facilitated by the dual role of Ceric Ammonium Nitrate (CAN), herein we report a cost-effective approach for the cyanation of aryl iodides/bromides with CAN–DMF as an addition to the existing pool of combined cyanation sources. In addition to being an oxidant, CAN acts as a source of nitrogen in our protocol. The reaction is catalyzed by a readily available Cu(II) salt and the ability of CAN to generate ammonia in the reaction medium is utilized to eliminate the additional requirement of a nitrogen source, ligand, additive or toxic reagents. The mechanistic study suggests an evolution of CN⁻ leading to the synthesis of a variety of aryl nitriles in moderate to good yields. The proposed mechanism is supported by a series of control reactions and labeling experiments
5. List of year-wise activities under the collaboration:
Activity 2020-21:
We have developed cyanation reaction using alternative organic CN source

Signature of Faculty	Signature and Seal of Head of Department/ Centre/ Cell
 Dr. Utpal Bora Associate Professor Department of Chemical Sciences Tezpur University, Napaam Dist - Sonitpur, Assam 784028 Name: Dr. Utpal Bora Designation: Associate Professor	 Prof. & Head Department of Chemical Sciences TEZPUR UNIVERSITY Name: Professor Ruli Borah Designation: Professor & HoD