

## CERTIFICATE

It is certified that the work contained in the thesis titled "*MAGNETIC TRANSITIONS IN  $\text{BiFeO}_3$  AND  $\text{Ca}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$  WITH AND WITHOUT SUBSTITUTIONAL DISORDER*" by "*ARUN KUMAR*" has been carried out under my supervision and that this work has not been submitted elsewhere for a degree.

It is further certified that the student has fulfilled all the requirements of Comprehensive, Candidacy and SOTA for the award of Ph.D. degree.

Date: 31.7.2019

Place: Varanasi



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