MEMORANDUM

I, hereby, declare that I have not previously submitted any of the work described in this thesis for any higher degree to this or any other University.

During the last four years and a half, I have been mainly engaged in dating some minerals namely apatite, sphene, zircon and muscovite collected from granites and pegmatites of greater Gauhati, Assam, India. At the same time I have also studied the annealing behaviour and isochronal plateau study of apatite and sphene. The uranium concentration of whole rock samples of granite and pegmatite are also determined.

Rock samples have been collected from the field under the guidance of Dr. C.C. Bhattacharjee, Professor and Head, Department of Geology, Gauhati University. All the measurements and analysis reproduced in this thesis are done by me. Few measurements and the final results have been carefully checked by Dr. T.D. Goswami, Professor, Department of Physics, Gauhati University.

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