



DEPARTMENT OF CERAMIC ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY
(BANARAS HINDU UNIVERSITY)
VARANASI - 221005.

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Title of the Thesis: *“Study of processing, electrical, thermal, mechanical and permeability characterization of porous alumina ceramics fabricated using rice husk and sucrose”*.

Candidate’s Name: *Ajay Kumar*

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Signature of the candidate



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Forwarded

Signature of the Co-Supervisor
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UNDERTAKING FROM THE CANDIDATE

I, **Ajay Kumar**, research scholar under the supervision of **Dr. Kalyani Mohanta**, Associate Professor, Department of Ceramic Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi, and co-supervision of **Prof. Devendra Kumar**, Professor, Department of Ceramic Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi, give undertaking that the thesis entitled “**Study of processing, electrical, thermal, mechanical and permeability characterization of porous alumina ceramics fabricated using rice husk and sucrose**” submitted by me for the degree of **Doctor of Philosophy** is a record of first-hand research work done by me during the period of study.

I do further undertake the responsibility for mistakes, error of facts and misinterpretations, if any, in the thesis, which is of course entirely of my own.

Date

Place: Varanasi

(Signature of the candidate)

Ajay Kumar

(Name of the candidate)



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**CERTIFICATE FROM THE SUPERVISOR &
CO-SUPERVISOR**

This is to certify that the above statement made by the candidate is correct to the best of our knowledge.

Signature of the Co-Supervisor
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Signature of the Supervisor
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Signature of the HOD with seal
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ANNEXURE – F

COURSE WORK/ COMPREHENSIVE EXAMINATION
COMPLETION CERTIFICATE

This is to certify that **Mr. Ajay Kumar**, a bonafide research scholar of this department, has successfully completed the Ph. D. course work examination, which is a part of his Ph. D. program.

Date

Place: Varanasi

(Signature of the Head of the Department)



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PRE-SUBMISSION SEMINAR COMPLETION CERTIFICATE

This is to certify that *Mr. Ajay Kumar*, a bonafide research scholar of this department, has successfully completed the pre-submission seminar held on 13th June, 2014 which is a part of his Ph. D. program.

Date

Place: Varanasi

(Signature of the Head of the Department)