

# Studies on Ceria Nanofiber Catalysts in Water Gas Shift Reaction



Thesis submitted in partial fulfillment  
for the Award of Degree

**Doctor of Philosophy**

By

*Dan Bahadur*

"DEPARTMENT OF CHEMICAL ENGINEERING & TECHNOLOGY"  
INDIAN INSTITUTE OF TECHNOLOGY  
(BANARAS HINDU UNIVERSITY)  
VARANASI - 221 005

Roll No. 12602EN009

July, 2017