## **CERTIFICATE**

It is certified that the work contained in the thesis titled "Studies on the Synthesis and characterization of some N/S containing Schiff Base Ligands and their applications" by "Vinay Kumar Pandey" 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.

Prof. Syed Hadi Hasan
(Supervisor)
Department of Chemistry,
Indian Institute of Technology
(Banaras Hindu University),
Varanasi–221005

**DECLARATION BY THE CANDIDATE** 

I, "Vinay Kumar", certify that the work embodied in this thesis is my own bonafide work and

carried out by me under the supervision of "Prof. Syed Hadi Hasan" from "December 2013" to

"December 2019", at the "Department of Chemistry", Indian Institute of Technology (BHU),

Varanasi. The matter embodied in this thesis has not been submitted for the award of any other

degree/diploma. I declare that I have faithfully acknowledged and given credits to the research

workers wherever their works have been cited in my work in this thesis. I further declare that I

have not wilfully copied any other's work, paragraphs, text, data, results, etc., reported in

journals, books, magazines, reports dissertations, theses, etc., or available at websites and have

not included them in this thesis and have not cited as my own work.

Date:

Place: Varanasi

Vinay Kumar Pandey

CERTIFICATE BY THE SUPERVISOR

It is certified that the above statement made by the student is correct to the best of my

knowledge.

Prof. Syed Hadi Hasan

(Supervisor)

**Department of Chemistry Indian Institute of Technology** 

(Banaras Hindu University)

Varanasi- 221005

Prof. D.Tiwary
Head of Department
Department of Chemistry,
Indian Institute of Technology
(Banaras Hindu University),
Varanasi- 221005

iii

**COPYRIGHT TRANSFER CERTIFICATE** 

Title of the Thesis: "Studies on the Synthesis and characterization of some N/S containing

Schiff Base Ligands and their applications"

Name of the Student: Vinay Kumar Pandey

**Copyright Transfer** 

The undersigned hereby assigns to the Indian Institute of Technology (Banaras Hindu

University), Varanasi, all rights under copyright that may exist in and for the above thesis

submitted for the award of the "Doctor of Philosophy."

Date:

Vinay Kumar Pandey

Place: Varanasi

Note: However, the author may reproduce or authorize others to reproduce material

extracted verbatim from the thesis or derivative of the thesis for author's personal use

provided that the source and the Institute's copyright notice are indicated.

iv