

CERTIFICATE

This is to certify that the thesis entitled “**SYNTHESIS, CHARACTERISATION AND APPLICATIONS OF TRANSITION METAL COMPLEXES OF QUINOXALINE, PYRIMIDINE AND BENZOTHAZOLE BASED HETEROCYCLIC LIGANDS**” submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **DOCTOR OF PHILOSOPHY IN CHEMISTRY** is a record of original research work done by **Mrs. S. Jone Kirubavathy, M.Sc., M.Phil.**, during the period 2012 – 2016 of her study in the Department of Chemistry at PSGR Krishnammal College for Women, Coimbatore, under my supervision and guidance and the thesis has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate of any University.

Counter Signed

Signature of the Guide

Head of the Department

Principal

DECLARATION

I, **S. JONE KIRUBAVATHY** hereby declare that the thesis entitled **“SYNTHESIS, CHARACTERISATION AND APPLICATIONS OF TRANSITION METAL COMPLEXES OF QUINOXALINE, PYRIMIDINE AND BENZOTHAZOLE BASED HETEROCYCLIC LIGANDS”** submitted to the Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of **DOCTOR OF PHILOSOPHY IN CHEMISTRY** is a record of original and independent research work done by me during 2012 – 2016 under the supervision and guidance of **Dr (Mrs.) SUBRAMANIAN CHITRA**, M.Sc., M.Phil., Ph.D, Department of Chemistry and it has not formed the basis for the award of any Degree / Diploma / Associate ship / Fellowship or other similar title to any candidate in any University.

Signature of the Candidate

CERTIFICATE OF GENUINNESS OF THE PUBLICATION

This is to certify that Ph.D. candidate **S. JONE KIRUBAVATHY** working under my supervision has published a research article in the standard refereed/SCI journal named **Arabian Journal of Chemistry** with doi: **[http://dx.doi.org/10.1016/ j.arabjc](http://dx.doi.org/10.1016/j.arabjc)** **2014.10.013** and year of publication **2014** published by **Elsevier**. The content of the publication incorporates part of the results presented in his / her thesis.

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Principal / Head of the Dept. / Director
(College / University / Institute)

Research Supervisor