

**Polymer supported  $Mn_{1-x}Ni_xFe_2O_4$  ( $x=0.1, 0.3, \text{ and } 0.5$ ) nanocomposites:  
Synthesis, Characterization, Properties and Application in dye degradation  
studies**

A Dissertation report for  
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M.Sc. in Physical Chemistry  
by

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APRIL 2024



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*[Handwritten signatures and dates]*  
02/05/2024

### DECLARATION BY STUDENT

I hereby declare that the data presented in the dissertation report entitled, "Polymer supported  $\text{Mn}_{1-x}\text{Ni}_x\text{Fe}_2\text{O}_4$  ( $x=0.1, 0.3, \text{ and } 0.5$ ) nanocomposites: Synthesis, Characterization, Properties and Application in dye degradation studies" is based on the results of investigations conducted by me in the field of Physical Chemistry at the School of Chemical Sciences, Goa University under the supervision of Dr. Diptesh Naik and the same has not been submitted elsewhere for the reward of a degree or diploma by me. Further, I understand that Goa University or its authorities will not be responsible for the correctness of experimental or other findings given in the dissertation.

I hereby authorize the University authorities to upload this dissertation on the dissertation repository or anywhere else as the UGC regulations demand and make it available to any one as needed.

Date: 30/04/2024

Place: Goa University

Mr. Pralay Deikar

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## CERTIFICATE

This is to certify that the dissertation report "Polymer supported  $\text{Mn}_{1-x}\text{Ni}_x\text{Fe}_2\text{O}_4$  ( $x=0.1, 0.3$ , and  $0.5$ ) nanocomposites: Synthesis, Characterization, Properties and Application in dye degradation studies" is a bonafide work carried out by Mr. Pralay Deikar under my supervision in partial fulfilment of the requirements for the award of the degree of Masters of Science in Chemistry in the Discipline Physical Chemistry at the school of Chemical Sciences, Goa University.



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