Bioinspired Bionanozymes: Design, Synthesis, and Innovations in Biocatalysis

Thesis submitted in partial fulfilment for the

Award of Degree

Doctor of Philosophy

By

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(Mr. Subrat Vishwakarma)

Research Scholar

18/07/2025

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Notations	Abbreviations
A	Adenine
%	Percentage
<	Less than
>	More than
°	Degree
°C	Degree Celsius
©	Copyright
Å	Angstrom
C	Cytosine
cm	Centimeter
[ ]	Concentration
DNA	Deoxyribonucleic acid
equiv.	Equivalent
ESI	Electrospray ionization
F	L-Phenylalanine
FT-IR	Fourier Transform Infra-Red
G	Guanine
g	Gram; Gravitational force
i.e.	that is
L.	Literature
m/z	Mass to charge ratio
mg	Milligram
min	Minute
mL	Milliliter
mm	Millimeter
mmol	Milli Mole
µm	Micrometer
µM	Micromolar
µL	Microliliter
nm	Nanometer
NaCl	Sodium chloride
NMP	N-Methyl-2-pyrrolidone
ox	Oxidation
pH	Potential of hydrogen
RT	Room Temperature
RNA	Ribonucleic acid
T	Thymine
UV	Ultraviolet
W	L-Tryptophane
XRD	X-ray diffraction