

List of abbreviations

The following abbreviations have been used throughout this work:

Ag ⁺	Silver
BSA	Bovine serum albumin
Ca ²⁺	Calcium
CO ²⁺	Cobalt
Cu ²⁺	Copper
DNSA	Dinitro salicylic acid
EDTA	Ethylenediaminetetraacetic acid
Fe ³⁺	Ferric
FTIR	Fourier-transform infrared spectroscopy
gds	Gram dry substrate
H	Hour
K ⁺	Potassium
kDa	Kilo Dalton
<i>K_m</i>	Michaelis constant
Mg	Milligram
Mg ²⁺	Magnesium
Min	Minute
ml	Milliliter
mM	Milli molar
Nm	Nano meter
OD	Optical Density
OVAT	One Variable at a Time
PCR	Polymerase chain reaction
PMSF	Phenylmethane sulfonyl fluoride
RSM	Response Surface Methodology
SDS	Sodium dodecyl sulfate
SDS-PAGE	Sodium dodecyl sulphate polyacrylamide gel electrophoresis
SEM	Scanning Electron Microscopy
SmF	Submerged fermentation
SSF	Solid state fermentation
U	Unit

UV	Ultraviolet
v/v	Volume/volume
V_{max}	Maximum velocity
w/v	Weight/volume
μg	Microgram
μl	Microlitre
μM	Micro molar