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List of abbreviations

AD	Anaerobic Digestion
ADM1	Anaerobic Digestion Model No. 1
ADS	Anaerobic Digester Slurry
ADSIND0	Anaerobic Digester Slurry Inoculum on Day Zero
AIL	Acid Insoluble Lignin
ANOVA	Analysis of Variance
ANN	Artificial Neural Network
ASL	Acid Soluble Lignin
BOD	Biological Oxygen Demand
CD	Cow Dung
CDIND0	Cow Dung Inoculum on Day Zero
CH ₄	Methane
CHNS	Carbon Hydrogen Nitrogen Sulphur
CMC	Carboxymethyl Cellulose
CMCase	Carboxymethyl cellulase
C/N	Carbon/Nitrogen
CO ₂	Carbon Dioxide
COD	Chemical Oxygen Demand
DNA	Deoxyribonucleic Acid
DNSA	3,5-dinitro salicylic acid
DT	Decision Tree
XGB	eXtreme Gradient Boosting
F/M ratio	Food to Microorganism ratio

FAS	Ferrous Ammonium Sulphate
FOM	Fermented organic manure
FTIR	Fourier Transform Infrared Spectroscopy
GB	Gradient Boosting
GC	Gas Chromatography
GHG	Green House Gas
HRT	Hydraulic Retention Time
H ₂ O ₂	Hydrogen Peroxide
K	Potassium
KBr	Potassium Bromide
LCB	Lignocellulosic Biomass
LFOM	Liquid fermented organic manure
LiP	Lignin Peroxidase
LR	Linear Regression
MANOVA	Multivariate Analysis of Variance
ML	Machine Learning
MnP	Manganese Peroxidase
MTCC	Microbial Type Culture Collection and Gene Bank
N	Nitrogen
NaOH	Sodium Hydroxide
NC	Negative Control
OD	Optical Density
OTU	Operational Taxonomic Unit
P	Phosphorus
PBS	Phosphate Buffer Saline

PC	Positive Control
PCR	Polymerase Chain Reaction
PDA	Potato Dextrose Agar
PERMANOVA	Permutational Multivariate Analysis of Variance
PS	<i>Pycnoporus sanguineus</i>
PSI	Per Square Inch
QC	Quality Control
QIIME	Quantitative Insights into Microbial Ecology
RDA	Redundancy Analysis
RF	Random Forest
RS	Rice Straw
S	Sulphur
sCOD	Soluble Chemical Oxygen Demand
SDG	Sustainable development Goals
SEM	Scanning Electron Microscopy
SVM	Support Vector Machine
TC	Total Carbon
TL	<i>Trichoderma longibrachiatum</i>
TS	Total Solids
VFAs	Volatile Fatty Acids
VS	Volatile Solids