

List of Abbreviations

AOB	Ammonia oxidizing bacteria
ATU	Allylthiourea
AUSB	Aerobic upflow sludge blanket
BNR	Biological nutrients removal
BOD ₅	Five-day biological oxygen demand
CAFB	Continuous flow airlift fluidized bed reactor
CFRs	Continuous flow reactors
COD	Chemical oxygen demand
DGAOs	Denitrifying glycogen-accumulating organisms
DO	Dissolved oxygen
DPAOs	Denitrifying polyphosphate-accumulating organisms
EPS	Extracellular polymeric substances
FA	Free ammonia
GAOs	Glycogen-accumulating organisms
HRT	Hydraulic retention time
IC	Integrity coefficient
MLSS	Mixed liquor suspended solids
N ₂ O	Nitrous oxide
NH ₃ -N	Ammoniacal nitrogen
NH ₄ ⁺ N	Ammonium nitrogen
NOB	Nitrite oxidizing bacteria
OLR	Organic loading rate
PAOs	Polyphosphate-accumulating organisms
PFRs	Plug-flow reactors
PN	Protein
PN/A	Partial nitrification followed by Anammox
PO ₄ ³⁻ P	Phosphate

POM	Particulate organic matters
PS	Polysaccharides
SBR	Sequencing batch reactor
SCOD	Soluble chemical oxygen demand
SND	Simultaneous nitrification and denitrification
SRT	Sludge retention time
STP	Sewage treatment plant
SUAV	Superficial upflow air velocity
SV	Settling velocity
SVI	Sludge volume index
TCOD	Total chemical oxygen demand
TN	Total nitrogen
TP	Total phosphorus
TSS	Total suspended solids
UASB	Upflow anaerobic sludge blanket
VER	Volumetric exchange rate
VFA	Volatile fatty acids
VSS	Volatile suspended solids
V_{ww}	Wastewater upflow velocity