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List of abbreviations and Symbols

Abbreviation	Nomenclature
USEPA	United States Environmental Protection Agency
WHO	World Health Organization
CCD	Central Composite Design
RSM	Response Surface Methodology
RT	Retention time
MSM	Mineral salt medium
PCR	Polymerase chain reaction
MEGA7	Molecular Evolutionary Genetics Analysis Tool
HPLC	High Performance Liquid Chromatography
OD	Optical density
RRG	Relative root growth
RSG	Relative seed germination
PI	Phytotoxicity index
GI	Germination index
DMSO	Dimethyl sulfoxide
VSS	Volatile suspended solid
COD	Chemical oxygen demand
FTIR	Fourier transform infrared
AC	Activated carbon
SB	Sugarcane bagasse
LDPE	Low-density polyethylene
CA	Calcium alginate
PP	Polypropylene
PUF	Polyurethane foam
GC–MS	Gas chromatography–mass spectrometry
SEM	Scanning electron microscopy
CS	Continuous system
BS	Batch system
WD	Without degraded
RPBBR	Recirculating packed bed biofilm reactor

FESEM	Field emission scanning electron microscopy
XPS	X-ray photoelectron spectroscopy
COD	Chemical oxygen demand
TOC	Total organic compound
RE _p	Removal efficiency of <i>p</i> -cresol
EC _{PR}	Elimination capacity of PBBR
PLR	Pollutant loading rate
PBBR	Packed bed biofilm reactor
UFPBBR	Upward flow-packed bed biofilm reactor
MBD	Methylene blue dye
PC	<i>p</i> -Cresol

Symbol

μ

μ_{max}

K_I

K_S

K

S

T

Nomenclature

Specific growth (h^{-1})

Maximum specific growth (h^{-1})

Inhibition constant ($mg\ L^{-1}$)

Saturation constant ($mg\ L^{-1}$)

Yono/Web constant ($mg\ L^{-1}$)

Substrate constant ($mg\ L^{-1}$)

Time (h/day)