TABLE 12.2 Details of Different Microbial Species Involved in Biological Processes for Cyanide Removal.

Microorganisms	CN^- compound used	pH	Temp. (°C)	Time (h)	Initial conc.	% Removal of CN^-	Remarks	Reference
Polyporus arcularius	KCN	10.5	30	48	100 mg/l	72.08	–	[70]
Pseudomonas pseudoalcaligenes	NaCN	9.5–10	30	57.6	45 mg/l	~60	–	[40]
Scenedesmus obliquus	NaCN	10.3	-	77	77.9	91	–	[37]
Bacillus sp. (Consortium)	KCN	9.5	37	192	200	65	–	[57]
Pseudomonas fluorenscens	ferrous (II) cyanide (ferrocyanide)	5	25	-	100 mg/l	78.9	–	[29]
Escherichia coli	KCN	6–8	20–40	-	50 mg/l	90	–	[13]
Pseudomonas fluorescens NCIMB 11764	KCN	7	30	6.3	50 mM KCN	80	in 6 h	[49]
Klebsiella oxytoca	KCN	7	30	80	0.58 mM	91.4	–	[45]
Rhodococcus species	KCN	7	30	10	12 mM	50	–	[55]
Pseudomonas fluorescens	FeCN	6	26	60	50 mg/l	99.9	–	[19]
Pseudomonas sp. (CM5, CMN2)	–	9.2–11.4	30	70	–	100	Bacteria remove cyanide between 45–70 h without high concentration of acclimatization	[2]
Fusarium solani	KCN	7.5	–	–	–	50	–	[7]
Pseudomonas putida	FeCN	7	30	–	100 mg/l	78.2	–	[20]

TABLE 12.2 *(Continued)*

Microorganisms	CN^- compound used	pH	Temp. (°C)	Time (h)	Initial conc.	% Removal of CN^-	Remarks	Reference
Pseudomonas sp. *Citrobacter* sp.	K, Zn, Cu-cyanide	7.5	35	15	0.5 mM	68–93% 88–93%	Biodegradation in a rotating biological contactor	[72]
Mixed culture of *Fusarium solani* and *T. polysporum*	$K_2Ni(CN)_4$	7.0	–	–	0.75 mM	90%	–	[7]
Rhizopus oryzae	CN^-	5.6	25	120	150 mg/l	83%	–	[18]
Stemphylium loti	CN^-	7.2			150 mg/l	90%	–	
R. oryzae S. loti	CN^-	5.6 7.2	25	120	150 mg/l	95.3% 98.6%	Removal efficiency increased by using SAB process at same parameters	[18]
Mixed (Anaerobic)	CN^-	7.5	–	48	>100 mg/L	>70%	Methanogenesis	[31]

'–' Not reported