Table S1. Review of cellulose-fed MFCs.

cellulosic substrate type	**MFC specification**	**inoculum**	**microbial composition of inoculum**	**microbial composition after operation in MFC**	**maximum power density [mW/m²]**	**references**
carboxymethyl cellulose	two-chamber (310 ml) MFC with graphite electrodes and ferricyanide catholyte	co-culture *Clostridium cellulolyticum* and *G. sulfurreducens*	co-culture *C. cellulolyticum* and *G. sulfurreducens*	*Clostridium cellulolyticum*; *Geobacter sulfurreducens*	143	[13, 14]
MN301 cellulose					59.2	
cellulose from cotton linters Sigmacell 50	two-chamber (200 ml) MFC with carbon cloth anode, carbon fiber cathode and ferricyanide catholyte	*Enterobacter cloacae*	*Enterobacter cloacae*	*Enterobacter cloacae*	4.9 – 5.4	[9]
		paper recycling plant wastewater	*Klebsiella pneumoniae; Enterobacter cloacae; Stenotrophomonas sp.; Exiguobacterium sp.*	not investigated	18	
cellulose powder (Sigmacell)	H-type MFC (50 ml) with graphite electrodes and ferricyanide catholyte	*Enterobacter cloacae* isolated from termite gut	*Enterobacter cloacae* isolated from termite gut	*Enterobacter cloacae* isolated from termite gut	185	[7]
cellulose from cotton linters Sigmacell 20	two-chamber MFC (0.9 l) with graphite electrodes and ferricyanide catholyte	cow rumen consortium	not investigated	*Firmicutes (Clostridium sp).; Betaproteobacteria (Comamonas sp.)*	55	[15]
wheat straw hydrolysate	two-chamber (300 ml) MFC with carbon paper electrodes and ferricyanide catholyte	primary clarifier of wastewater treatment plant	not investigated	*Bacteroidetes (Dysgonomonas wimpennyi), Alphaproteobacteria, Bacillus, Deltaproteobacteria (G.metallireducens), Gammaproteobacteria*	123	[16]

cellulose from cotton linters Sigmacell 50	two chamber (200 ml) MFC with carbon paper anode and carbon paper/Pt cathode	sludge from wastewater treatment plant	not investigated	not investigated	12 100 when cellulase was added	[17]
Avicel cellulose	two-chamber (450 ml) MFC graphite electrodes and occasionally ferricyanide catholyte	rice paddy field soil	not investigated	*Rhizobiales, Clostridiales, Chloroflexi, Methanobacterium*	10	[18]
cellulose (Sigma)	H-type MFC with carbon paper electrodes and ferricyanide catholyte	cellulose degrading strains: *Streptomyces enissocaesilis* and *Nocardiopsis sp.*	*Streptomyces enissocaesilis* and *Nocardiopsis sp*	not investigated	145-162 when cellobioase was added	[8]
corn stover	air-cathode single chamber MFC (300 ml)	municipal wastewater	not investigated	*Rhodopseudomonas palustris, Clostridium sp.*	6-10 331 with glucose preacclimation	[19]
diluted hydrolysates of corn stover	air-cathode single chamber MFC (28 ml)	domestic wastewater	not investigated	not investigated	475	[20]
paper recycling wastewater	air-cathode single chamber MFC (300 ml)	paper recycling wastewater	not investigated	not investigated	501	[21]
cellulose from cotton linters Sigmacell 20	air-cathode single chamber MFC (42 ml) two-chamber MFC (42 ml)	bacterial suspension from two-chamber, aqueous–cathode microbial electrolysis cell inoculated with domestic wastewater	not investigated	*Clostridium Thermocellum, Geobater sulfurreducens, Clostridiium cellulolyticum*	1070 880	[22]
cellulose fibers from cotton linters Sigma C6288	air-cathode single chamber MFC (28 ml)	cow manure	*Firmicutes (Clostridium sp.)* and *Proteobacteria (Comamonas sp.)*	*Bacteroidetes* (*Parabacteroides, Proteiniphilum)* and *Firmicutes (Clostridium sp., Catonella sp.)*	44	this work

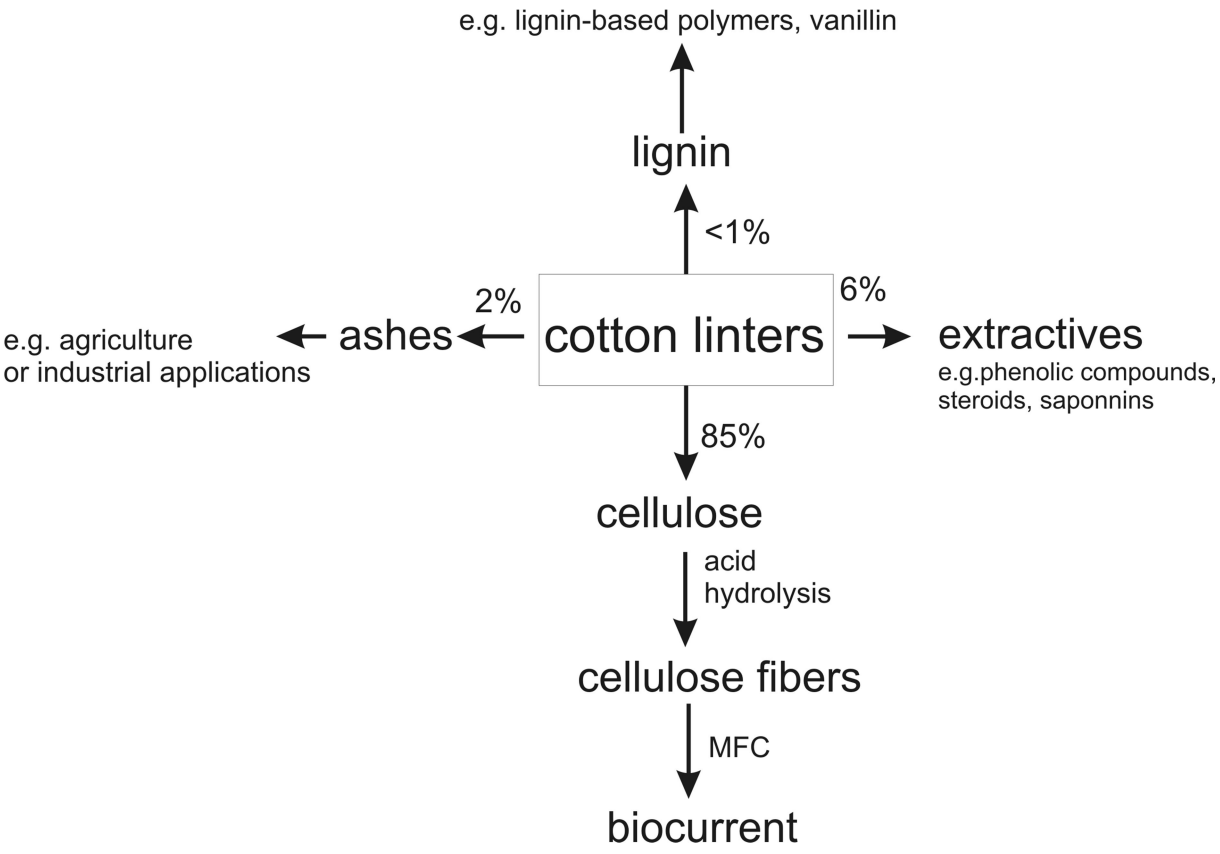

Figure S1. Schematic presentation of possible use of cellulose and cotton linter residues.