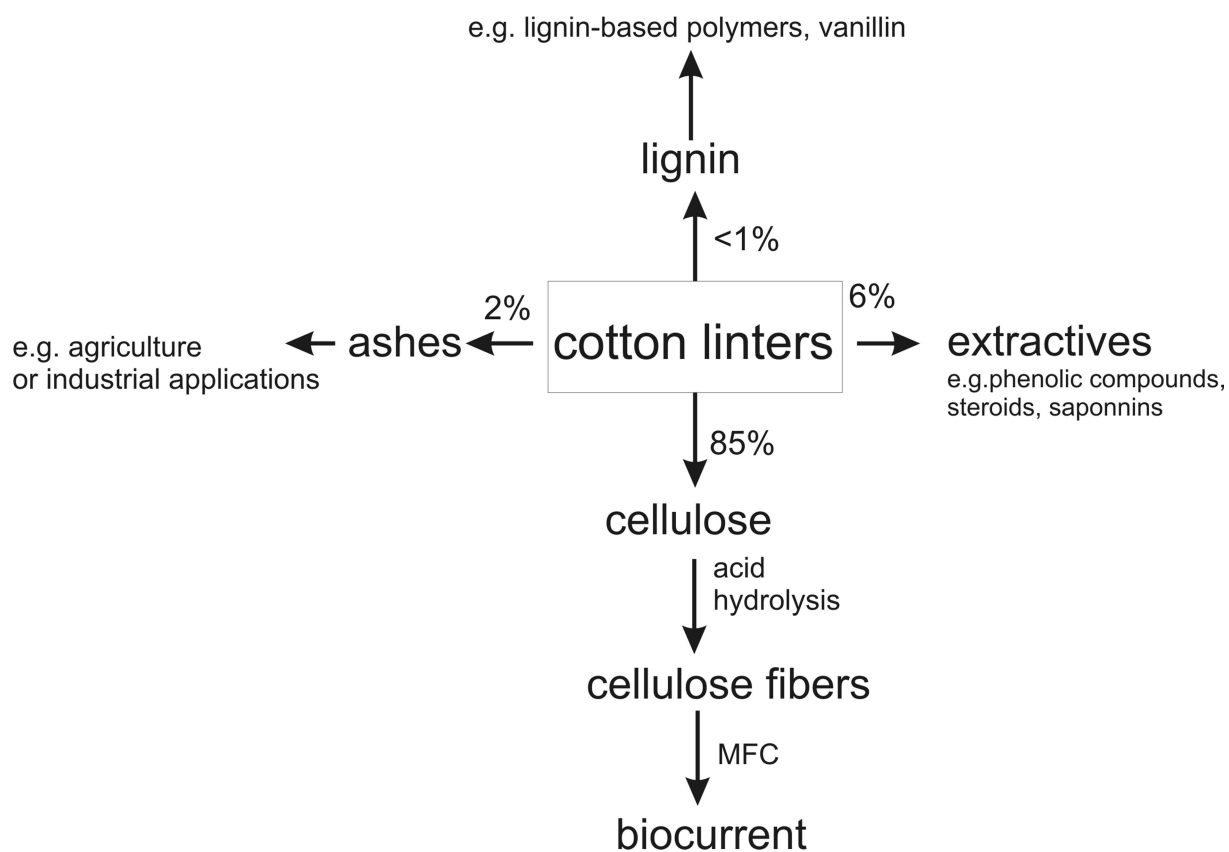


Table S1. Review of cellulose-fed MFCs.

cellulosic substrate type	MFC specification	inoculum	microbial composition of inoculum	microbial composition after operation in MFC	maximum power density [mW/m <sup>2</sup> ]	references
carboxymethyl cellulose	two-chamber (310 ml) MFC with graphite electrodes and ferricyanide catholyte	co-culture <i>Clostridium cellulolyticum</i> and <i>G. sulfurreducens</i>	co-culture <i>C. cellulolyticum</i> and <i>G. sulfurreducens</i>	<i>Clostridium cellulolyticum</i> ; <i>Geobacter sulfurreducens</i>	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	<i>Enterobacter cloacae</i>	<i>Enterobacter cloacae</i>	<i>Enterobacter cloacae</i>	4.9 – 5.4	[9]
		paper recycling plant wastewater	<i>Klebsiella pneumoniae</i> ; <i>Enterobacter cloacae</i> ; <i>Stenotrophomonas</i> sp.; <i>Exiguobacterium</i> sp.	not investigated	18	
cellulose powder (Sigmacell)	H-type MFC (50 ml) with graphite electrodes and ferricyanide catholyte	<i>Enterobacter cloacae</i> isolated from termite gut	<i>Enterobacter cloacae</i> isolated from termite gut	<i>Enterobacter cloacae</i> 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	<i>Firmicutes</i> ( <i>Clostridium</i> sp.); <i>Betaproteobacteria</i> ( <i>Comamonas</i> sp.)	55	[15]
wheat hydrolysate	two-chamber (300 ml) MFC with carbon paper electrodes and ferricyanide catholyte	primary clarifier of wastewater treatment plant	not investigated	<i>Bacteroidetes</i> ( <i>Dysgonomonas wimpennyi</i> ), <i>Alphaproteobacteria</i> , <i>Bacillus</i> , <i>Deltaproteobacteria</i> ( <i>G. metallireducens</i> ), <i>Gammaproteobacteria</i>	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	<i>Rhizobiales, Clostridiales, Chloroflexi, Methanobacterium</i>	10	[18]
cellulose (Sigma)	H-type MFC with carbon paper electrodes and ferricyanide catholyte	cellulose degrading strains: <i>Streptomyces enissocaeilis</i> and <i>Nocardiopsis sp.</i>	<i>Streptomyces enissocaeilis</i> and <i>Nocardiopsis sp.</i>	not investigated	145-162 when cellobioase was added	[8]
corn stover	air-cathode single chamber MFC (300 ml)	municipal wastewater	not investigated	<i>Rhodopseudomonas palustris, Clostridium sp.</i>	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	<i>Clostridium Thermocellum, Geobater sulfurreducens, Clostridium cellulolyticum</i>	1070  880	[22]
cellulose fibers from cotton linters Sigma C6288	air-cathode single chamber MFC (28 ml)	cow manure	<i>Firmicutes (Clostridium sp.)</i> and <i>Proteobacteria (Comamonas sp.)</i>	<i>Bacteroidetes (Parabacteroides, Proteiniphilum)</i> and <i>Firmicutes (Clostridium sp., Catonella sp.)</i>	44	this work



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