

1 **AN OPEN AIR BIOCATHODE ENABLES EFFECTIVE ELECTRICITY**

2 **GENERATION WITH MICROBIAL FUEL CELLS**

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8 **Summary:**

9 **Page S2: Table S1**

10 **Page S3: Figure S1**

11 **Page S4: Figure S2**

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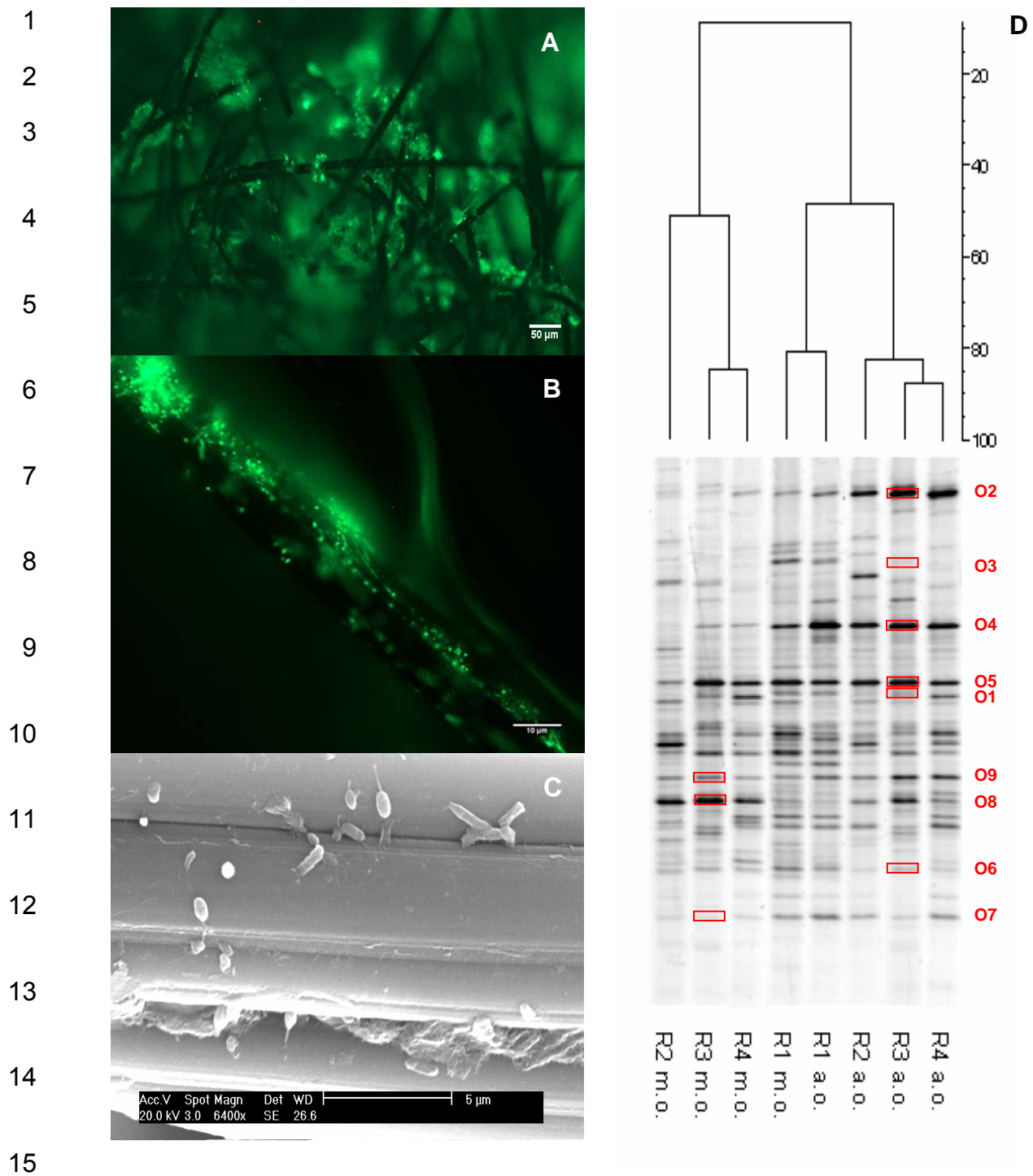
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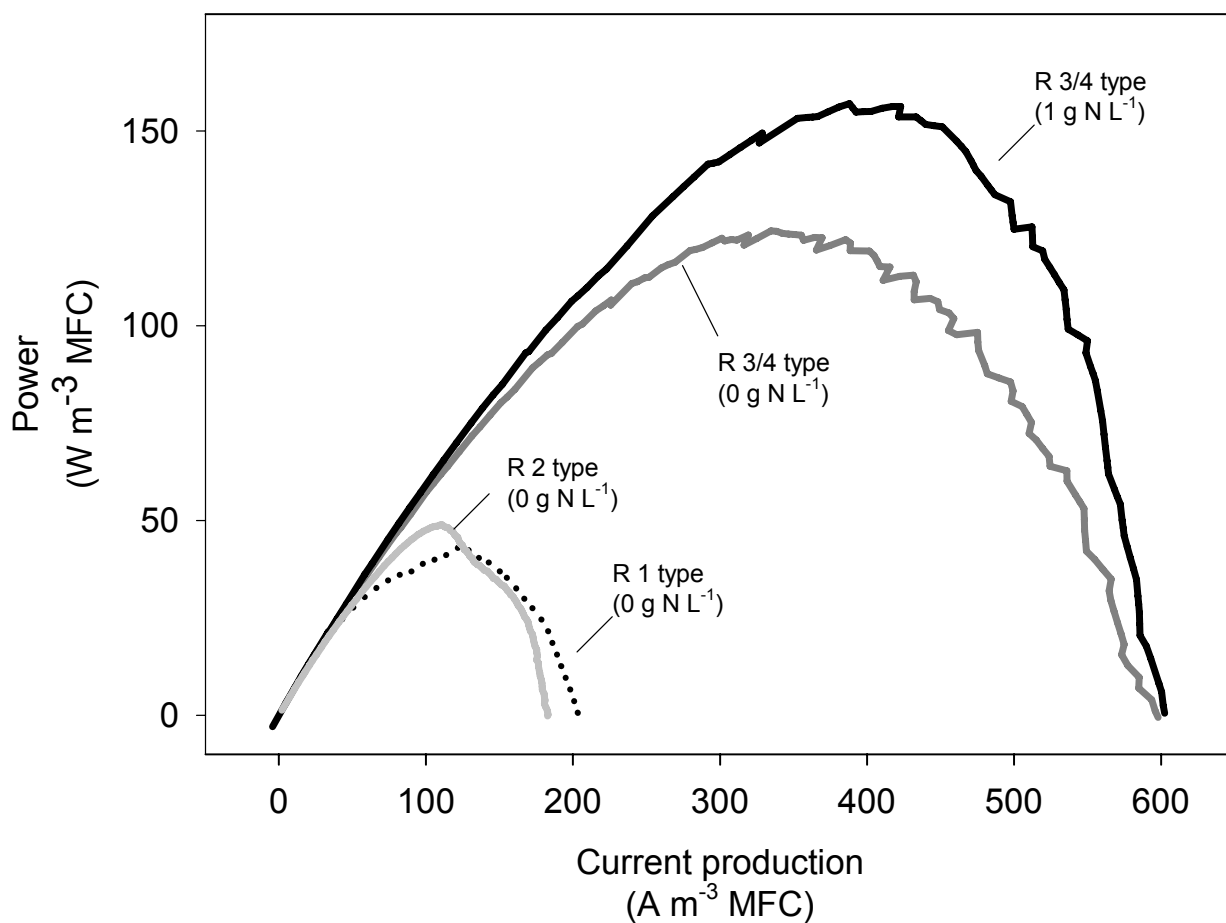
1 **Table S1: Overview of the organisms (O1-O9) corresponding with the**
 2 **sequenced bands on the DGGE represented in Figure S1.D. Identification was**
 3 **performed with the RDP Classification Algorithm. The probability values are**
 4 **given between brackets.**

	Phylum	Order	Family	Genus
O1	TM7 (100%)			Genera_incertae_sedis_TM7 (100%)
O2	γ-Proteobacteria (100%)	Pseudomonadales (100%)	Pseudomonadaceae (100%)	Pseudomonas (100%)
O3	γ-Proteobacteria (100%)	Xanthomonadales (100%)	Xanthomonadaceae (100%)	Hydrocarboniphaga (100%)
O4	α-Proteobacteria (100%)	Sphingomonadales (100%)	Sphingomonadaceae ((100%)	Novosphigobium (69%)
O5	α-Proteobacteria (100%)	Sphingomonadales (100%)	Sphingomonadaceae (100%)	Sphingopyxis (100%)
O6	α-Proteobacteria (100%)	Rhizobiales (100%)	Hyphomicrobiaceae (99%)	Xantobacter (95%)
O7	α-Proteobacteria (98%)	Rhizobiales (83%)	Methylocystaceae (59%)	Albibacter (57%)
O8	α-Proteobacteria (100%)	Rhodobacterales (100%)	Rhodobacteraceae (100%)	Catellibacterium (54%)
O9	α-Proteobacteria (100%)	Rhodobacterales (100%)	Rhodobacteraceae (100%)	Catellibacterium (63%)

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16 **Figure S1: Epifluorescence microscopy images (A, B) and a secondary electron**
 17 **image (SEM) (C) of cathodic graphite fibers. DGGE pattern of the different**
 18 **biofilms on the cathodic felts after 5 months of operation; both the membrane**
 19 **oriented side (m.o.) as the air oriented side (a.o.) of the cathodic graphite felt**
 20 **were investigated (D) – The organisms (O1-O9) are indicated in Table S1**



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Figure S2: Power density curves (scan rate: 1 mV s⁻¹) for the different reactor designs (R1, R2 and R3/4) with 0.05 M ferricyanide as a cathodic electron acceptor (0.1 M phosphate buffer). The OCV was between 0.651 V and 0.708 V