Table S6: Summary of ONEWAY ANOVA post-hoc tests of microbial communities from coupons grouped according to type of fuel in reactors. R7, R8: no-fuel. R1, R2: petro F76. R3, R4: FT-F76. R5, R6: fuel mix. Dependent variables: relative abundance of the 100 genera in highest relative abundance. Mean: mean value. Post-hoc test: significance level < 0.05%, Tukey HSD (2-sided) where no-fuel is the control group. Homogeneous groups are designated by the same letters (A, B). Only taxa with significance level < 0.05% are shown.

Reactors Class: genus (or other taxon)	no fuel Mean	petro-F76 Mean	FT-F76 Mean	fuel mix Mean
Acetothermia: *Acetothermiia*	0.722	0.000	0.066	0.044
Homogeneous subsets	B	A	A	A
Actinobacteria: *Actinotalea*	0.020	0.056	0.153	0.133
Homogeneous subsets	A	B	A	A
Bacteroidia: Bacteroidetes BD2-2	0.569	0.000	0.229	0.196
Homogeneous subsets	B	A	AB	A
Bacteroidia: Prolixibacteraceae	0.168	0.038	0.112	0.463
Homogeneous subsets	AB	A	AB	B
Campylobacteria: Arcobacteraceae	0.361	2.207	0.230	0.993
Homogeneous subsets	A	B	A	A
Campylobacteria: *Haloarcobacter*	0.082	2.389	0.229	1.002
Homogeneous subsets	A	B	A	AB
Campylobacteria: *Poseidonibacter*	0.627	3.727	0.847	2.579
Homogeneous subsets	A	B	A	B
Anaerolineae: ADurb.Bin120	0.203	0.216	3.659	0.235
Homogeneous subsets	A	A	B	A
Anaerolineaea: *Ornatilinea*	0.132	0.074	0.010	0.676
Homogeneous subsets	AB	AB	A	B
Anaerolineae: *Pelolinea*	0.051	0.000	0.204	0.044
Homogeneous subsets	AB	A	B	AB
Deferrbacteres: *Denitrovibrio*	0.020	0.558	0.015	0.068
Homogeneous subsets	A	B	A	AB
Desulfobacteria: *Desulfoluna*	0.000	0.062	0.000	0.885
Homogeneous subsets	A	AB	A	B
Desulfobacteria: *Desulfatitalea*	0.000	0.424	0.000	0.284
Homogeneous subsets	A	B	A	AB
Desulfobacteria: *Desulfosarcina*	0.061	0.000	0.097	0.750
Homogeneous subsets	A	A	A	B
Desulfobacteria: Desulfosarcinaceae	0.173	5.950	0.306	1.533
Homogeneous subsets	A	B	A	AB
Desulfovibrionia: *Desulfonatronum*	1.849	1.480	27.982	2.637
Homogeneous subsets	A	A	B	AB
Desulfovibrionia: *Desulfovibrio*	73.655	21.508	24.996	30.345
Homogeneous subsets	B	A	A	A
Desulfovibrionia: *Halodesulfovibrio*	0.046	0.501	0.010	0.005
Homogeneous subsets	A	B	A	A
Desulfuromonadia: *Syntrophotalea*	0.571	2.968	0.455	3.154
Homogeneous subsets	A	B	A	B

Reactors Class: genus (or other taxon)	no fuel Mean	petro-F76 Mean	FT-F76 Mean	fuel mix Mean
Bacilli: *Bacillus*	0.530	0.664	0.409	1.379
Homogeneous subsets	A	AB	A	B
Bacilli: *Caldalkalibacillus*	0.411	1.836	0.664	2.287
Homogeneous subsets	A	AB	A	B
Clostridia: JTB215	0.000	0.225	0.000	0.814
Homogeneous subsets	A	AB	A	B
Morellia: *Desulfitibacter*	0.000	0.803	0.005	0.216
Homogeneous subsets	A	A	A	B
Alphaproteobacteria: Rhodobacteraceae	0.479	1.340	1.101	1.374
Homogeneous subsets	A	AB	AB	B
Alphaproteobacteria: *Ruegeria*	0.000	0.924	0.000	0.027
Homogeneous subsets	A	B	A	A
Gammaproteobacteria: *Shewanella*	0.000	0.156	0.000	0.101
Homogeneous subsets	A	B	A	AB
Gammaproteobacteria: UnknownGammaFamily	2.078	0.107	1.193	0.359
Homogeneous subsets	B	A	AB	A
Gammaproteobacteria: *Halomonas*	0.041	0.211	0.066	0.217
Homogeneous subsets	A	AB	AB	B
Gammaproteobacteria: *Marinobacter*	0.132	1.590	0.500	1.702
Homogeneous subsets	A	B	A	B
Gammaproteobacteria: *Marinobacterium*	0.000	1.058	0.000	0.195
Homogeneous subsets	A	B	A	AB
Gammaproteobacteria: *Neptunomonas*	0.000	0.119	0.000	0.569
Homogeneous subsets	A	AB	A	B
Spirochaetia: *Sediminispirochaeta*	0.208	0.088	0.025	0.729
Homogeneous subsets	AB	AB	A	B
Thermotogae: *Kosmotoga*	0.148	0.366	0.260	0.655
Homogeneous subsets	A	AB	AB	B