

Supplementary Information for

Nuclear Magnetic Resonance Spectroscopy Analysis of Anaerobic Microbial Metabolic Response to Benzalkonium Chloride Disinfectant

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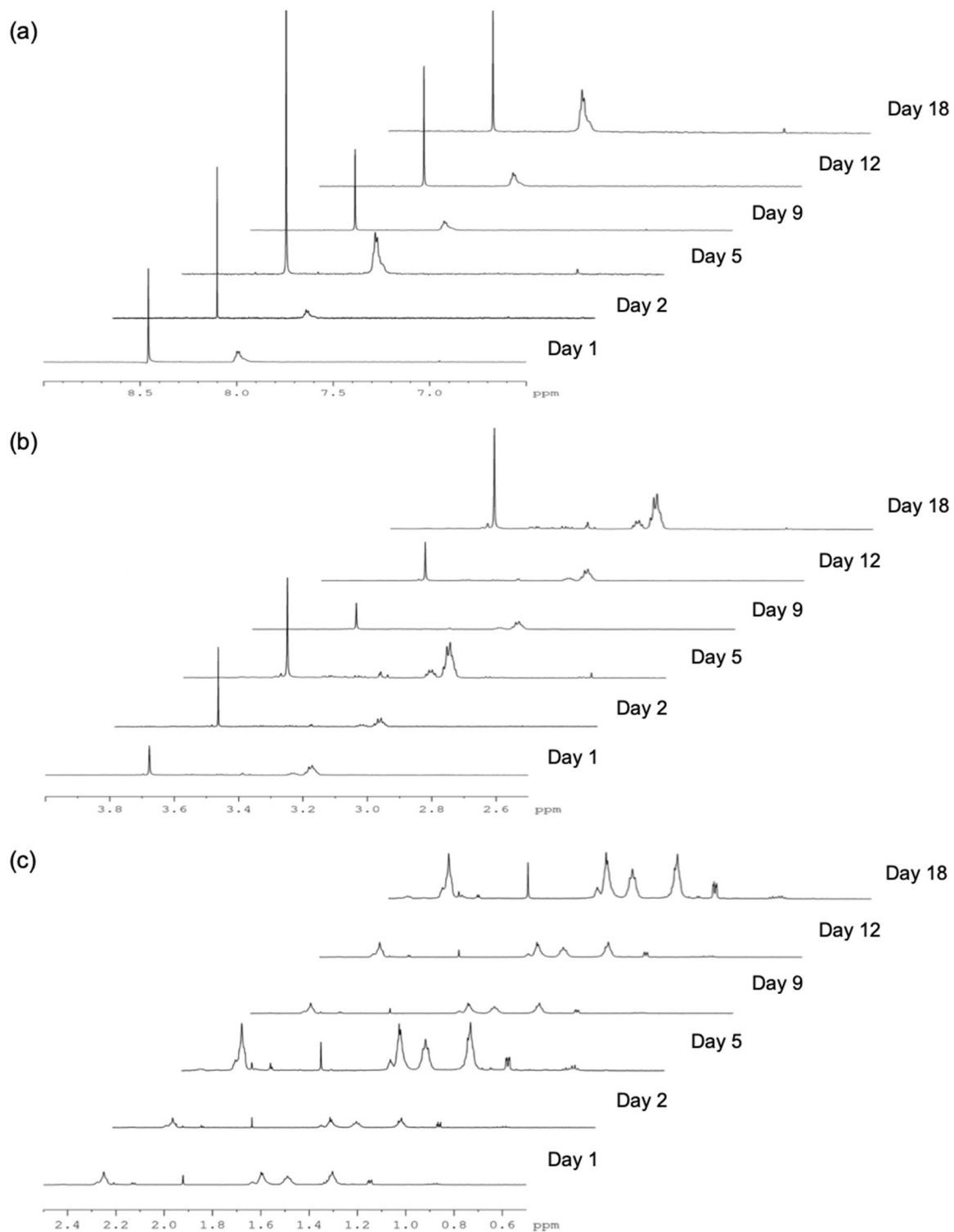


Figure S1: ^1H NMR spectra of the 0 mg/L BAC series day 1, 2, 5, 9, 12, and 18. (a) Aromatic Region. (b) Functionalized Alkyl Region. (c) Alkyl Region.

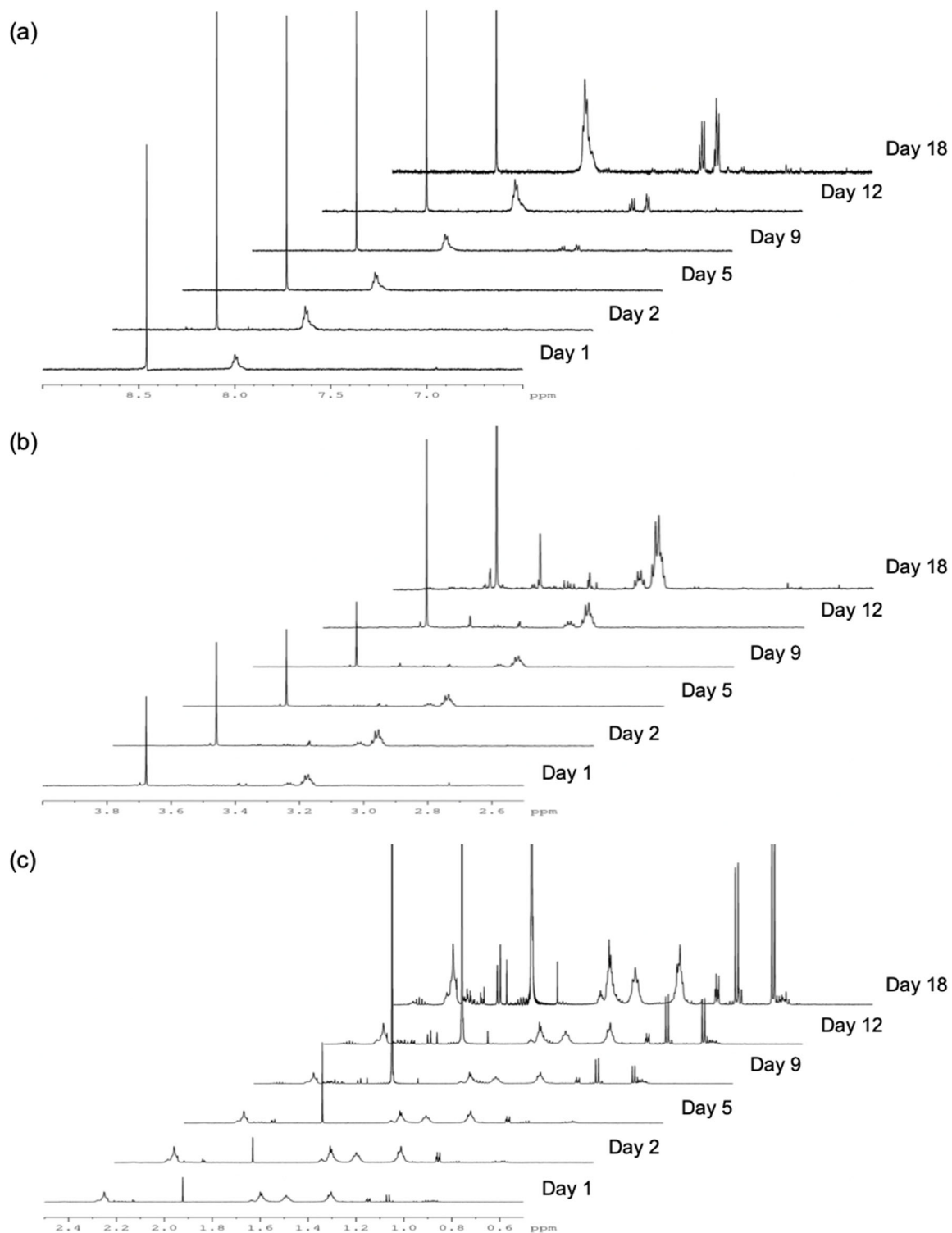


Figure S2: ^1H NMR spectra of 16.7 mg/L BAC series day 1, 2, 5, 9, 12, and 18. (a) Aromatic Region. (b) Functionalized Alkyl Region. (c) Alkyl Region.

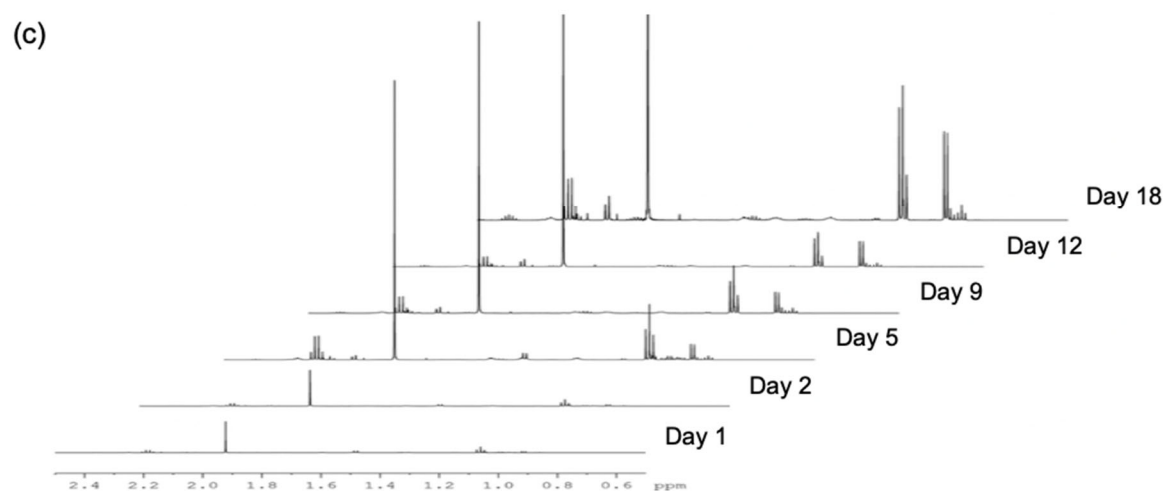
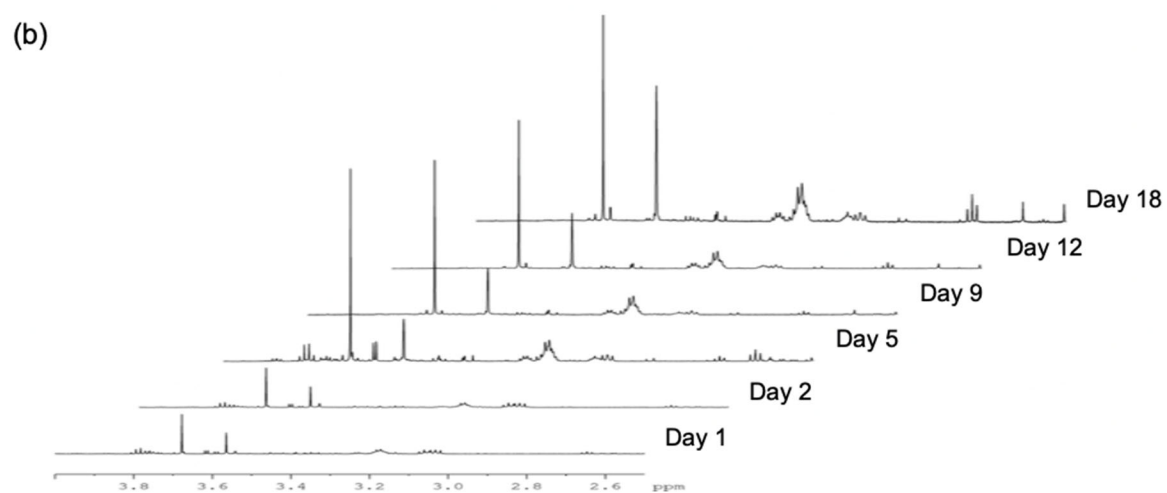
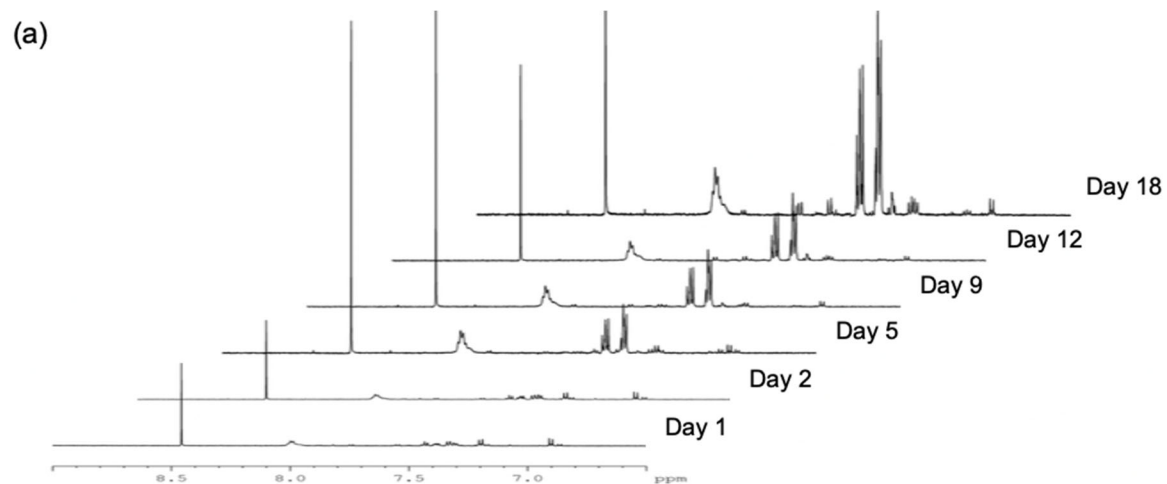


Figure S3: ^1H NMR spectra of 33.3 mg/L BAC series day 1, 2, 5, 9, 12, and 18. (a) Aromatic Region. (b) Functionalized Alkyl Region. (c) Alkyl Region.

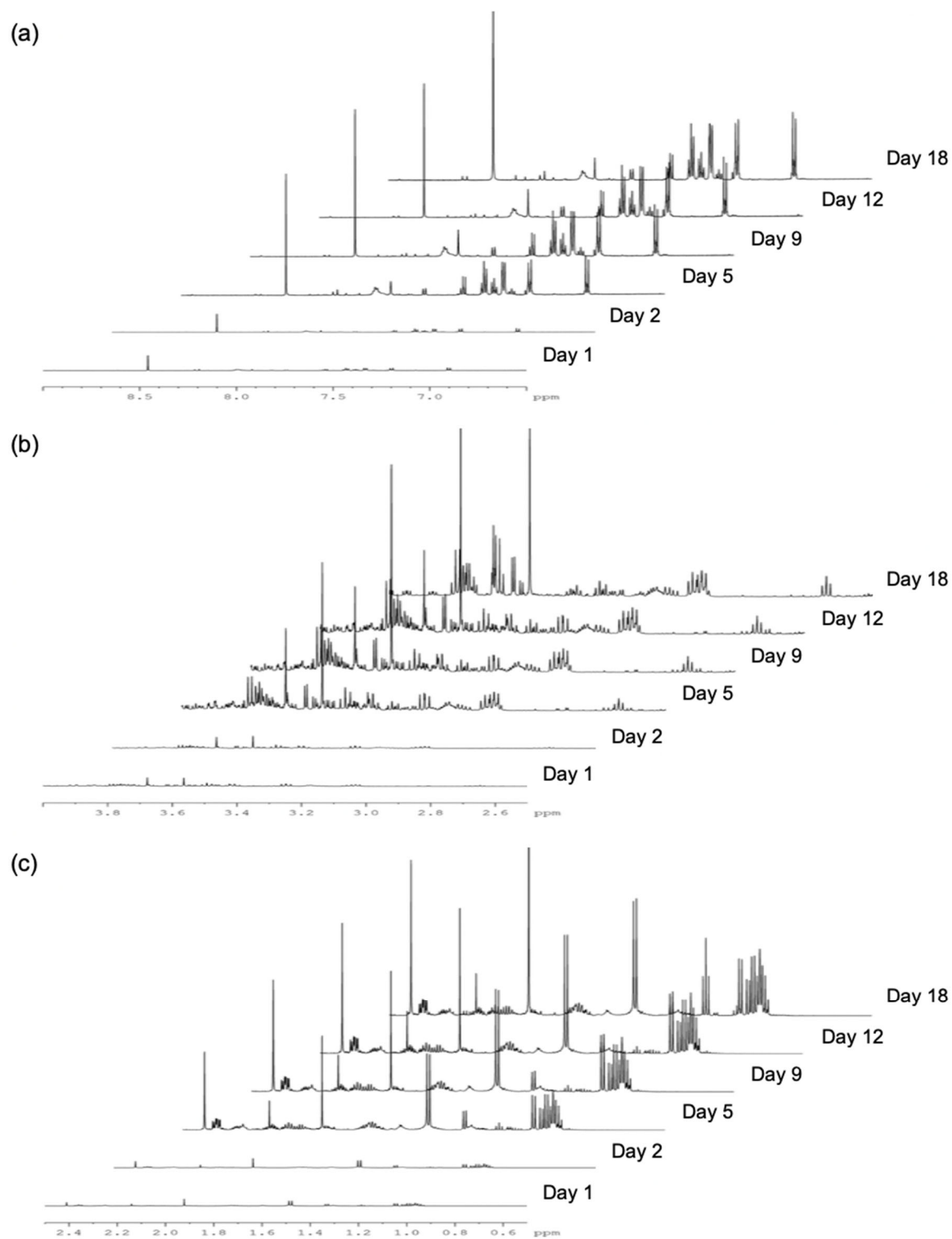


Figure S4: ^1H NMR spectra of 66.7 mg/L added BAC series day 1, 2, 5, 9, 12, and 18. (a) Aromatic Region. (b) Functionalized Alkyl Region. (c) Alkyl Region.

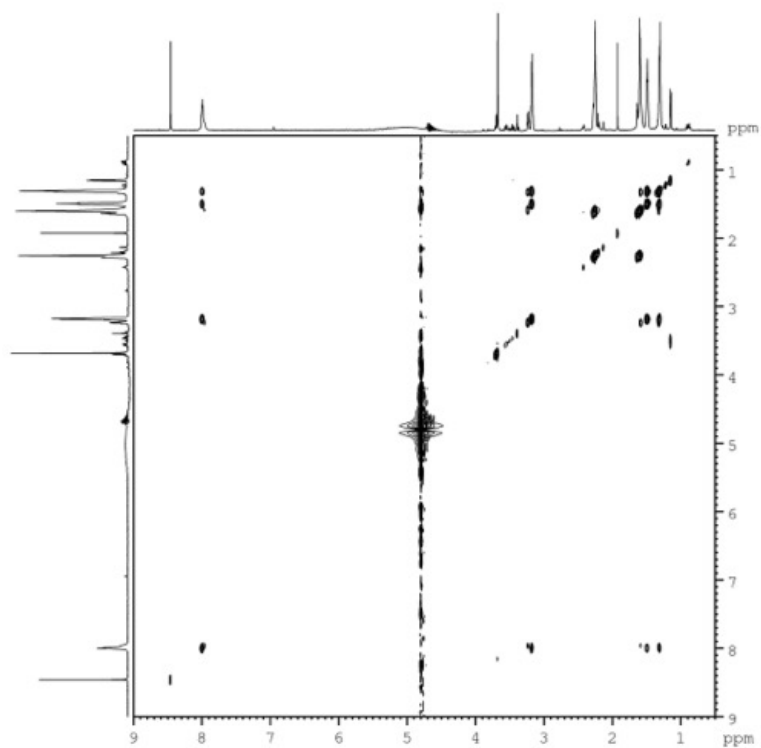


Figure S5: ^1H - ^1H TOCSY NMR spectra of control day 18.

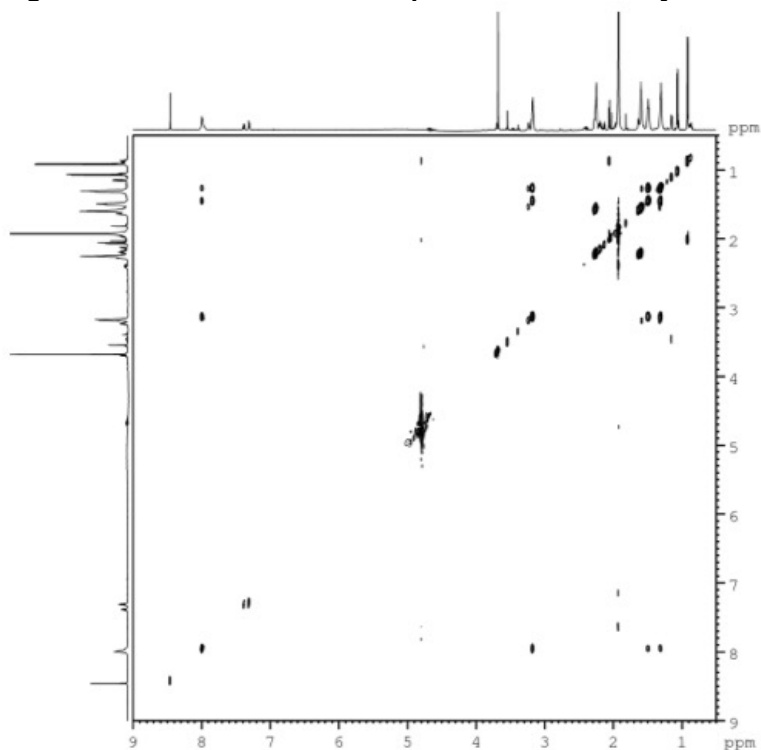


Figure S6: ^1H - ^1H TOCSY NMR spectra of 16.7 mg/L added BAC day 18.

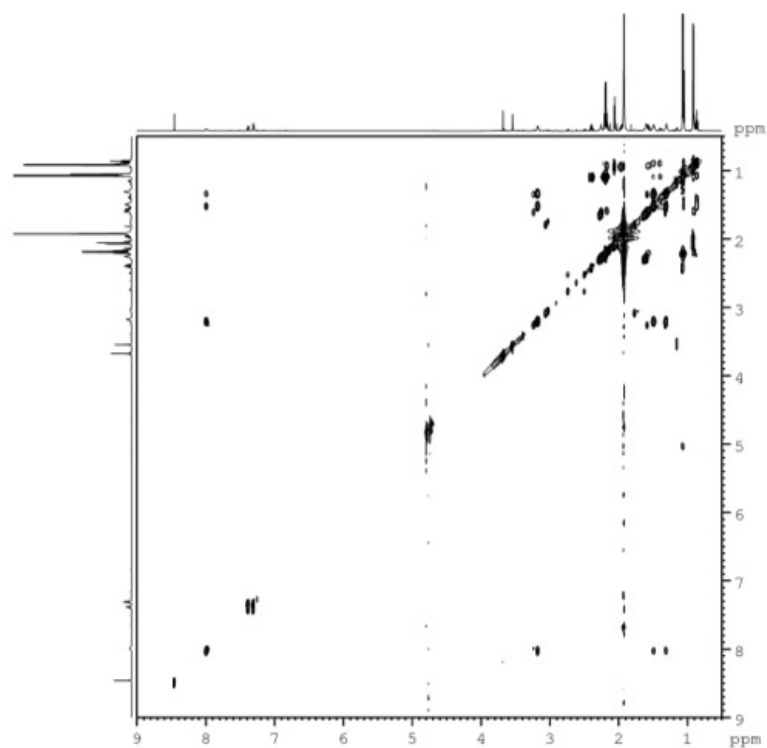


Figure S7: ¹H - ¹H TOCSY NMR spectra of 33.3 mg/L added BAC day 18.

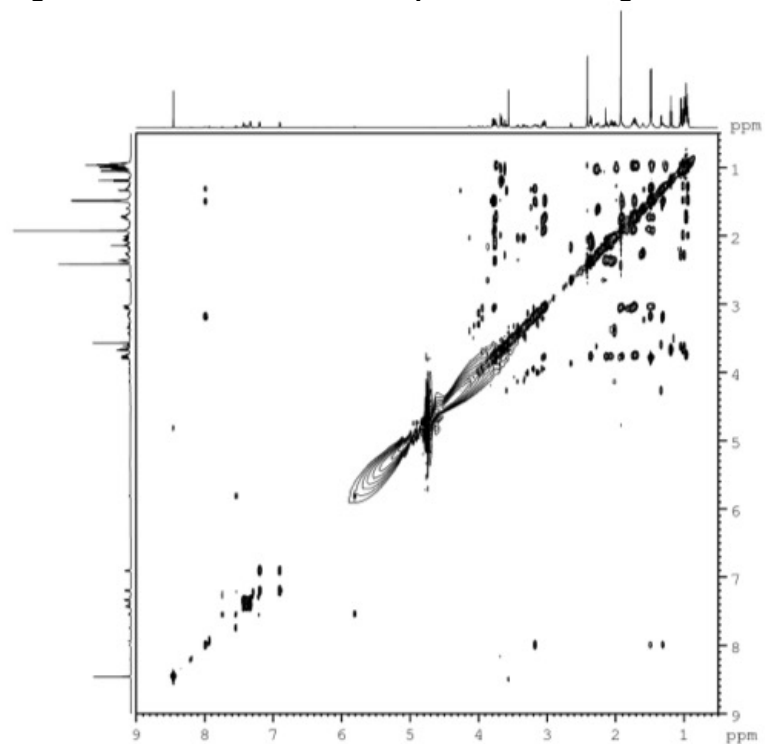


Figure S8: ¹H - ¹H TOCSY NMR spectra of 66.7 mg/L added BAC day 18.

Table S1: Biogas composition (CO₂ / CH₄) of control, 16.7 mg/L added BAC, 33.3 mg/L added BAC, and 66.7 mg/L added BAC series.

Series	Day 1	Day 2	Day 5	Day 9	Day 12	Day 18
Control	N/A	38/62	32/68	32/68	33/67	31/69
16.7 mg/L	N/A	36/64	28/72	30/70	29/71	31/69
33.3 mg/L	N/A	63/37	54/46	50/50	52/48	54/46
66.7 mg/L	N/A	71/29	68/32	69/31	72/28	76/24