# Kelly et al. Figures

Different Incubation Assay Metrics Describe Different Aspects of Carbon Degradation

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## Main manuscript

### Figure 1

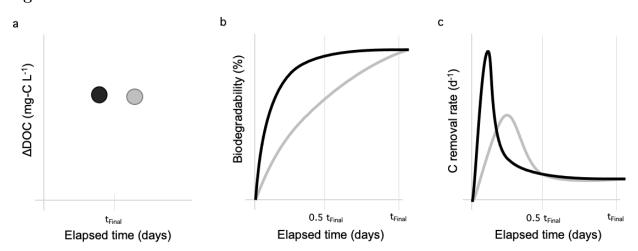
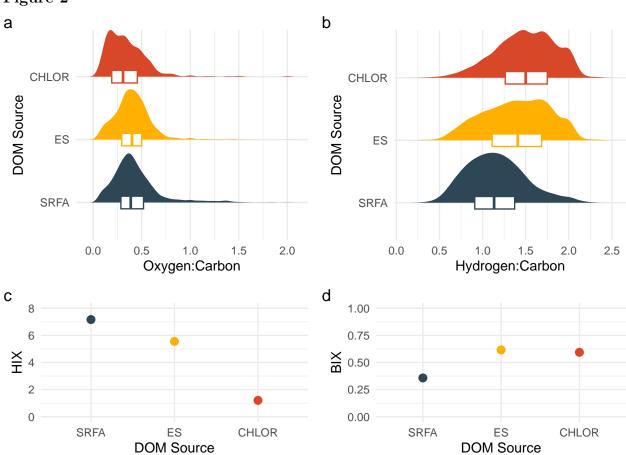


Figure 2





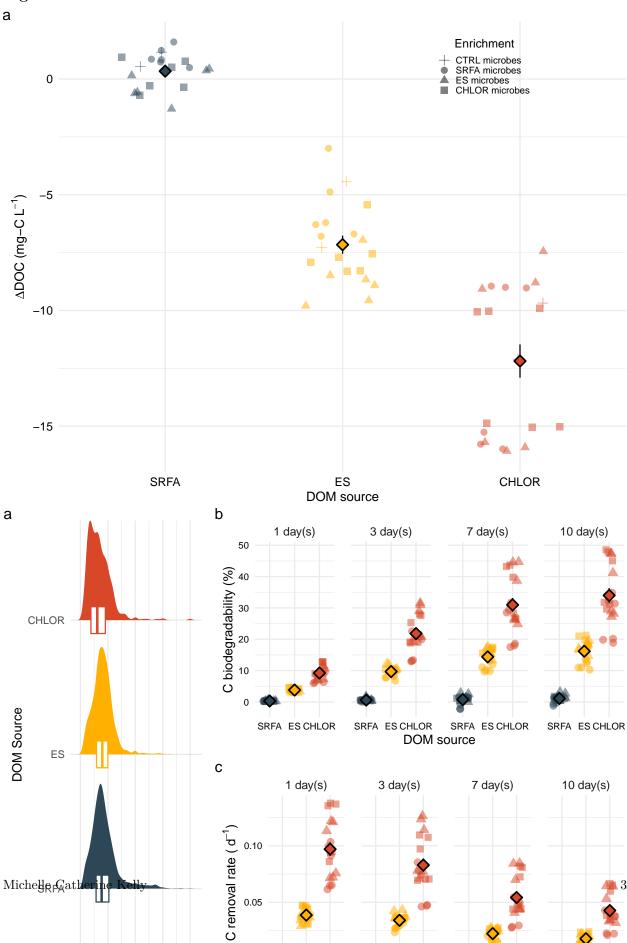
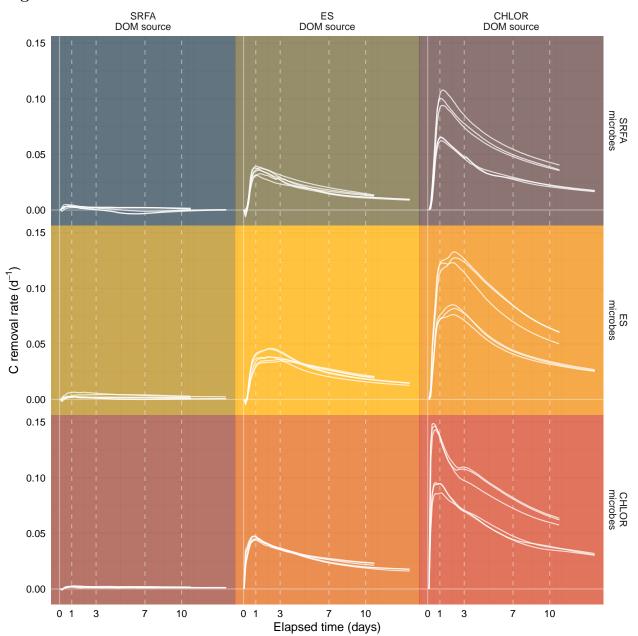


Figure 4





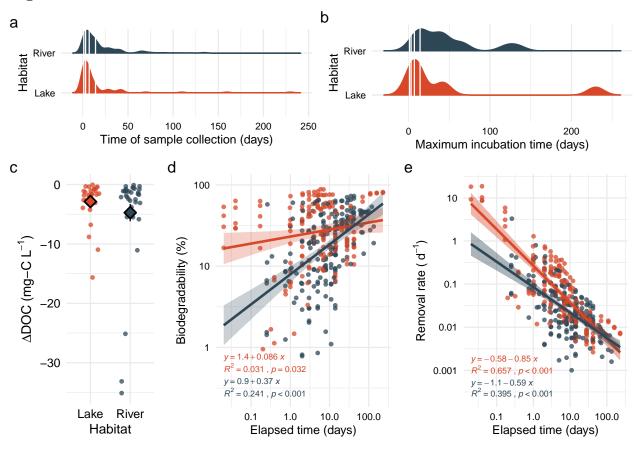


Figure 6

			C bioavailability
Study objective	Total degradation	Relative degradation	Microbial activity
	ΔDOC	Biodegradability	C removal rate
Degradation metric	$\Delta DOC = DOC_F - DOC_0$	$BDOC_{t} = \frac{DOC_{0} - DOC_{t}}{DOC_{0}} \times 100$	$k_t = -\frac{1}{t} ln \frac{DOC_t}{DOC_0}$
	Balance	ed sampling	Front-loaded sampling
Sampling strategy	$t_0$ $t_1$ $t_2$	t <sub>3</sub> t <sub>4</sub> t <sub>Final</sub>	t <sub>0</sub> t <sub>1</sub> t <sub>2</sub> t <sub>3</sub> t <sub>4</sub> t <sub>Final</sub>

### Supplemental

Figure S1

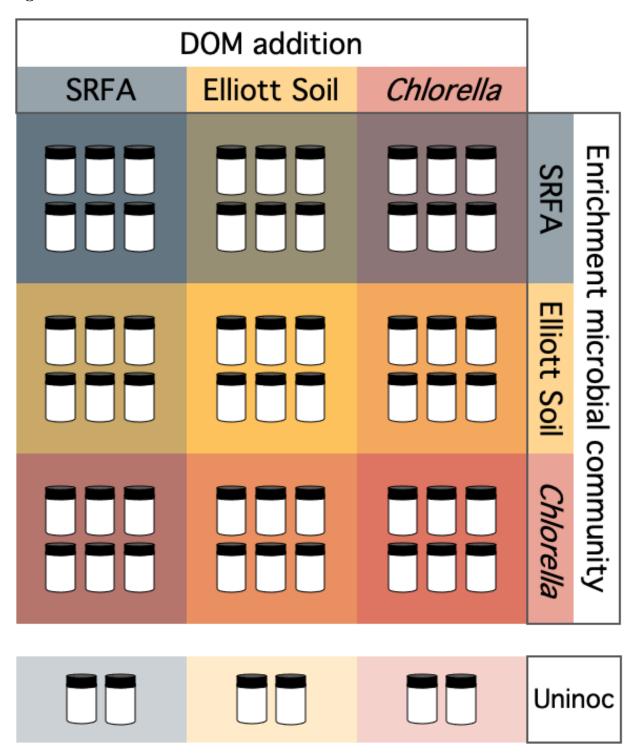


Figure S2

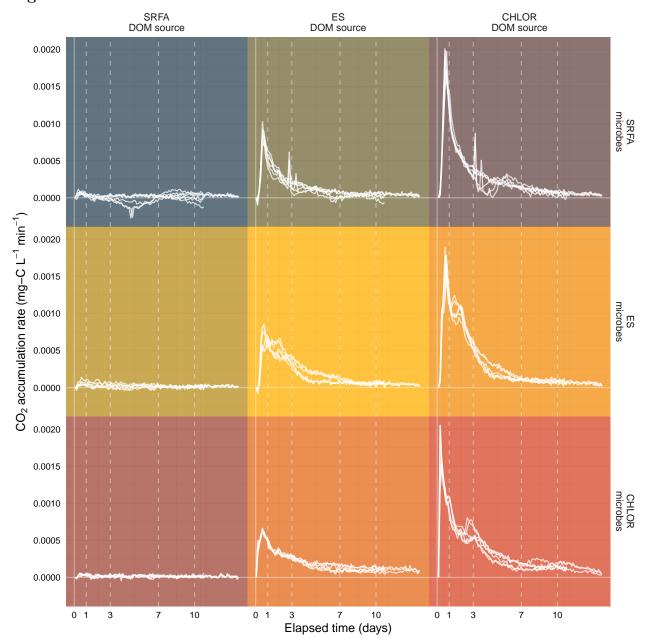


Figure S3

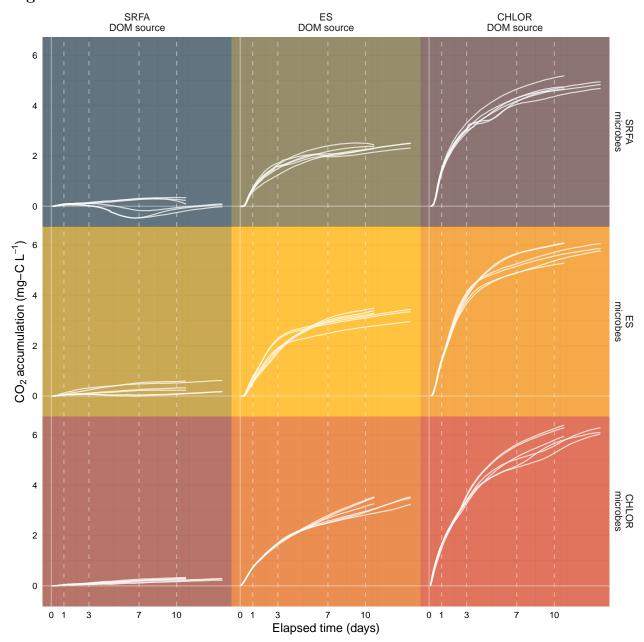


Figure S4

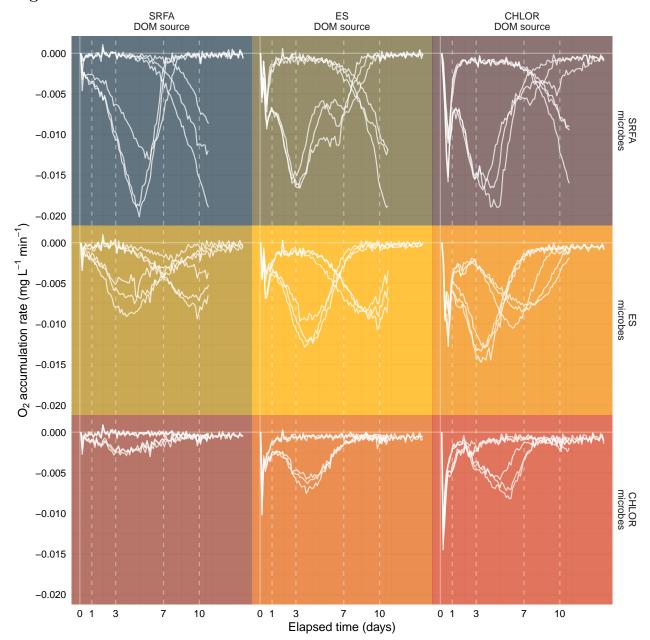
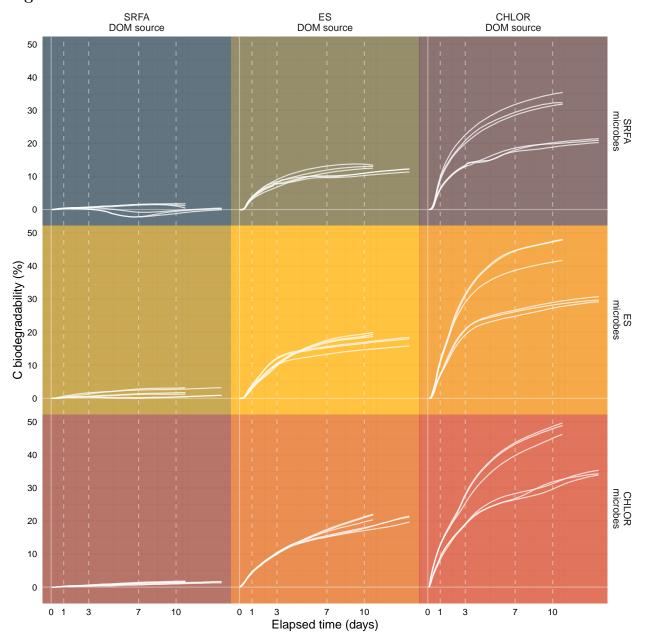


Figure S5





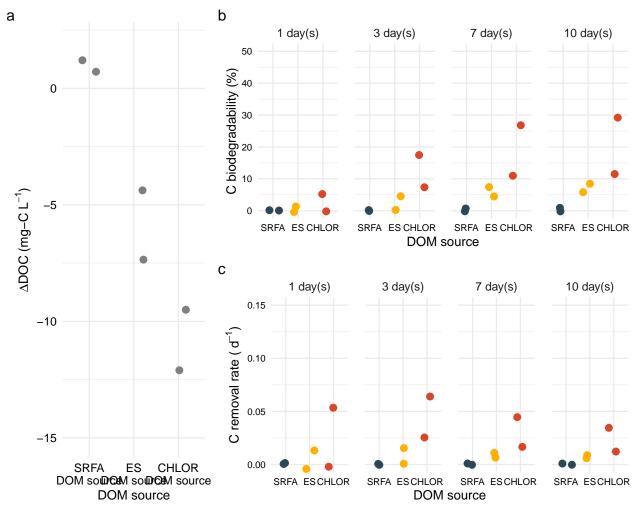


Table S1

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
DOMSource	2	1588.662	794.331	170.421	0.000
Enrichment	3	25.021	8.340	1.789	0.162
DOMSource:Enrichment	6	16.949	2.825	0.606	0.724
Residuals	48	223.727	4.661	NA	NA

Table S2

DOMSource	eEnrichment	initialDOC	finalDOC	1	3	7	10
SRFA	CTRL	20.38 (1.33)	21.23 (0.89)	0.02 (0.01)	0.01 (0.04)	0.06 (0.13)	0.08 (0.16)
SRFA	SRFA	$20.23 \ (0.88)$	21.18(0.63)	0.07(0.02)	0.09(0.06)	-0.04 (0.37)	0.07(0.24)
SRFA	ES	18.9(0.42)	18.65 (0.64)	0.06 (0.03)	0.15(0.1)	0.26 (0.22)	0.3(0.21)
SRFA	CHLOR	$17.56 \ (0.74)$	17.7(0.21)	0.04(0.01)	0.09(0.03)	0.18(0.06)	0.24 (0.06)
ES	CTRL	19.36 (0.89)	13.5(1.12)	0.09(0.24)	0.48(0.61)	1.16(0.45)	1.39(0.43)
ES	SRFA	$19.32\ (1.52)$	13.68(2.1)	0.66 (0.06)	1.55(0.17)	2.11(0.16)	2.28(0.14)
ES	ES	$18.13 \ (0.77)$	9.4(1.15)	0.63(0.1)	1.96 (0.23)	2.88(0.21)	3.16 (0.24)

DOMSour	ceEnrichment	${\rm initial DOC}$	finalDOC	1	3	7	10
ES	CHLOR	16.26 (0.31)	8.73 (1.14)	0.73 (0.01)	1.67 (0.03)	2.63(0.13)	3.11 (0.25)
CHLOR	CTRL	17.7(3.85)	6.81(2.13)	0.37(0.58)	2.06(0.79)	3.13(1.25)	3.36(1.43)
CHLOR	SRFA	18.89(5.99)	6.55(1.01)	1.4(0.07)	3.06(0.13)	4.27(0.21)	4.67(0.25)
CHLOR	ES	16.2(4.99)	4.03(0.6)	1.4(0.05)	3.93(0.17)	5.25(0.34)	5.64(0.32)
CHLOR	CHLOR	15.34(3.49)	$2.85 \ (0.08)$	1.6(0.07)	3.42 (0.13)	5.14 (0.39)	5.78 (0.37)

 $\begin{tabular}{ll} \textbf{Table S3} \\ \end{tabular} Log accumulation rate \\ \end{tabular}$ 

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
DOMSource	2	15.381	7.691	342.127	0.000
Enrichment	2	0.532	0.266	11.824	0.000
Time_d	1	10.185	10.185	453.078	0.000
DOMSource:Enrichment	4	0.093	0.023	1.032	0.392
DOMSource:Time_d	2	2.633	1.316	58.556	0.000
Enrichment:Time_d	2	0.250	0.125	5.558	0.004
DOMSource:Enrichment:Time_d	4	0.031	0.008	0.350	0.844
Residuals	198	4.451	0.022	NA	NA

 ${\color{red} \text{Log total CO2 accumulation}}$ 

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
DOMSource	2	485.775	242.888	1593.015	0.000
Enrichment	2	8.384	4.192	27.493	0.000
Time_d	1	125.709	125.709	824.483	0.000
DOMSource:Enrichment	4	2.498	0.624	4.095	0.003
DOMSource:Time_d	2	68.780	34.390	225.551	0.000
Enrichment:Time_d	2	3.131	1.565	10.267	0.000
DOMSource:Enrichment:Time_d	4	0.610	0.153	1.000	0.408
Residuals	198	30.189	0.152	NA	NA

 $\begin{array}{l} \textbf{Table S4} \\ \textbf{Log biodegradability} \end{array}$ 

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
DOMSource	2	31.044	15.522	737.092	0.000
Enrichment	2	0.816	0.408	19.365	0.000
Time_d	1	3.085	3.085	146.493	0.000
DOMSource:Enrichment	4	0.031	0.008	0.368	0.831
$DOMSource:Time\_d$	2	1.052	0.526	24.980	0.000
Enrichment:Time_d	2	0.174	0.087	4.132	0.017
DOMSource:Enrichment:Time_d	4	0.069	0.017	0.821	0.513
Residuals	198	4.170	0.021	NA	NA

 ${\rm Log}~{\rm C}~{\rm removal}$ 

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
DOMSource	2	49.072	24.536	1296.460	0.000
Enrichment	2	0.935	0.467	24.701	0.000
Time_d	1	2.587	2.587	136.682	0.000
DOMSource:Enrichment	4	0.047	0.012	0.618	0.650
DOMSource:Time_d	2	0.200	0.100	5.277	0.006
Enrichment:Time_d	2	0.151	0.075	3.977	0.020
DOMSource:Enrichment:Time_d	4	0.062	0.016	0.824	0.511
Residuals	198	3.747	0.019	NA	NA