

Supplementary information for:

**Proof of concept for continuous enantioselective liquid-liquid extraction
in capillary microreactors using a green solvent**

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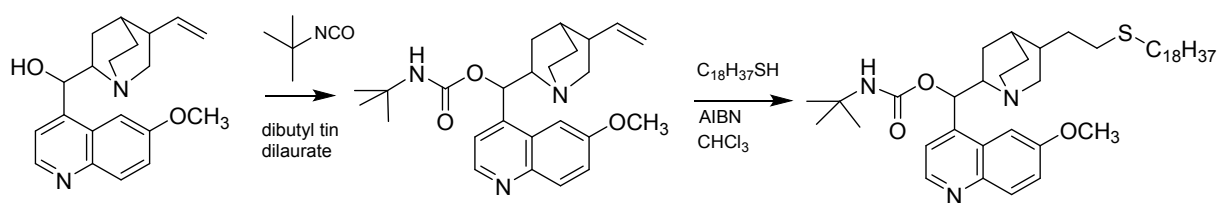


Figure S1. Synthesis of CA3.⁶¹

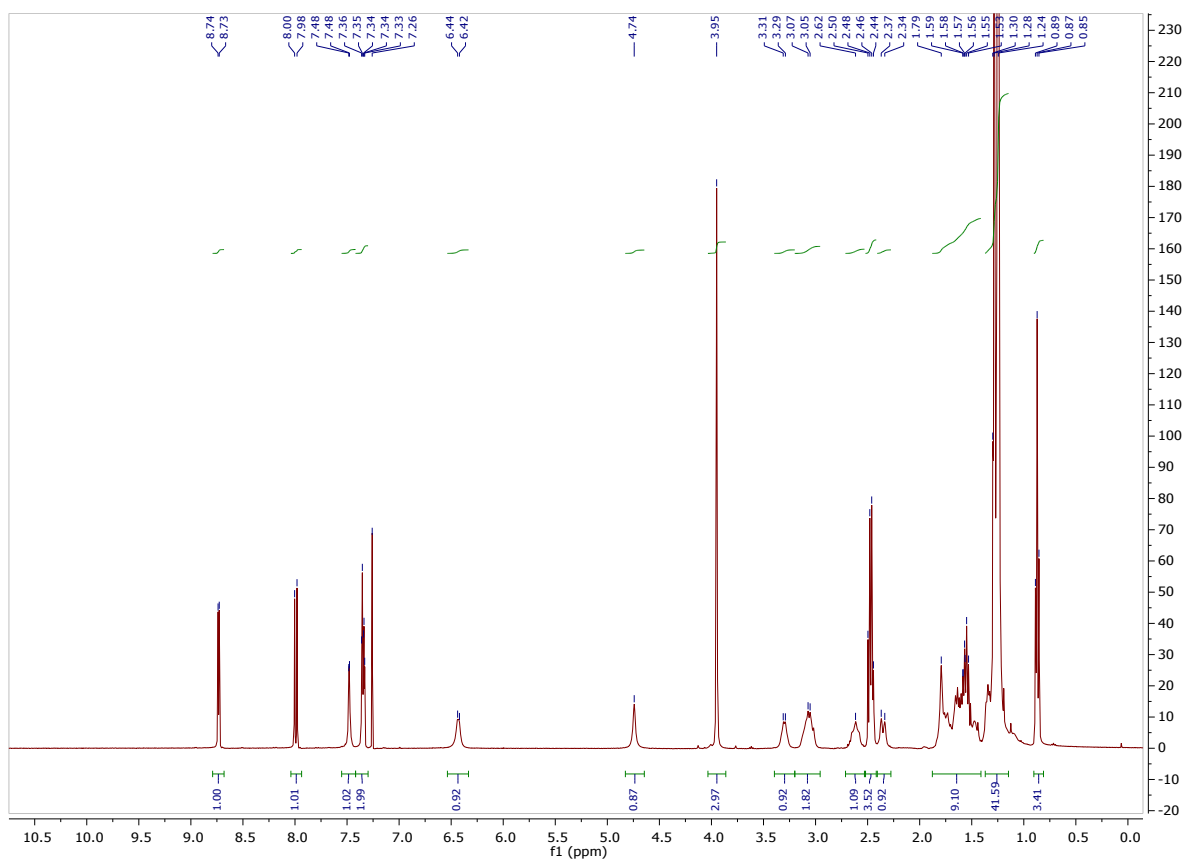


Figure S1. 1H NMR spectrum of CA3 (400.0 MHz)

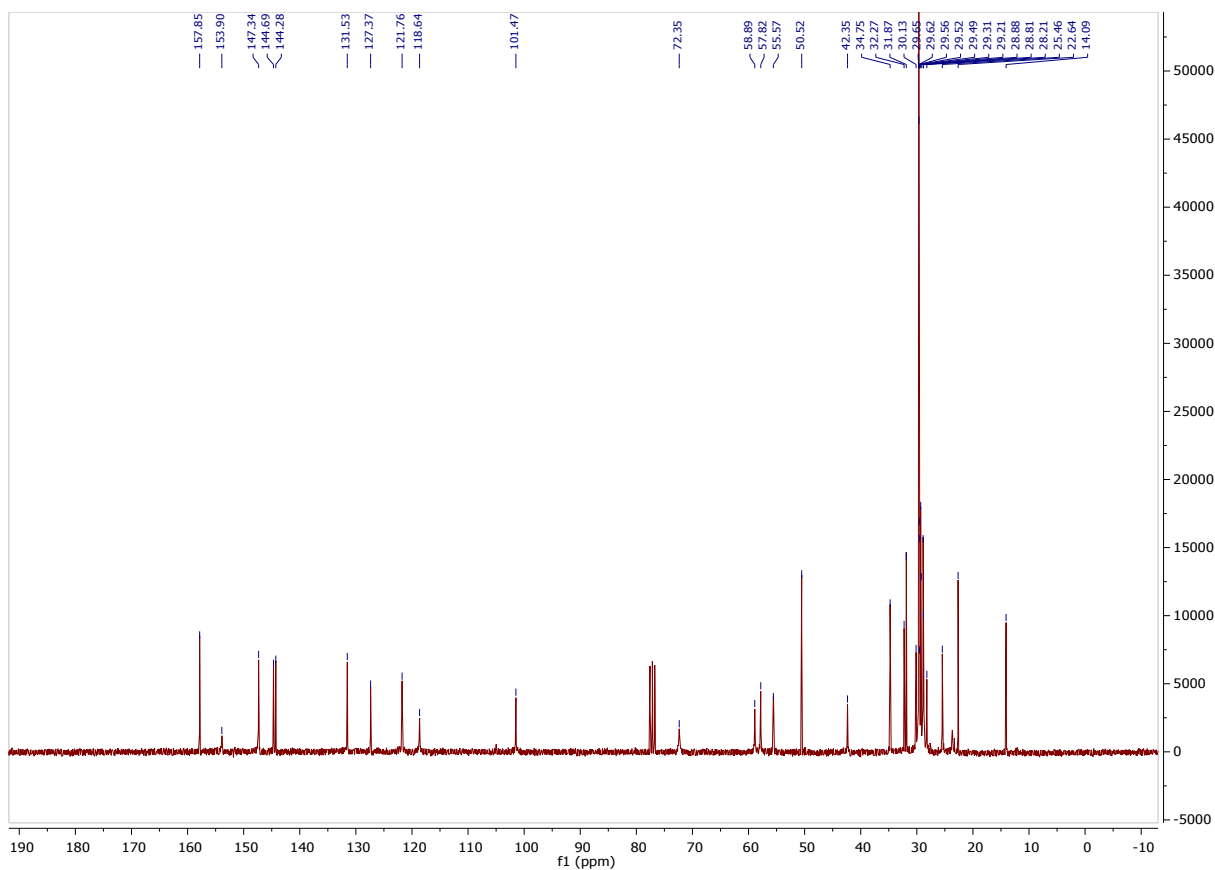


Figure S2. ^{13}C NMR spectrum of CA3.

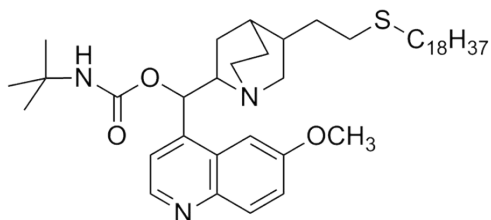


Table S1. Elemental analysis of CA3.

N %	C %	H %
5.86	72.46	10.20
5.86	72.49	10.24
Expected percentages		
5.92	72.73	10.08

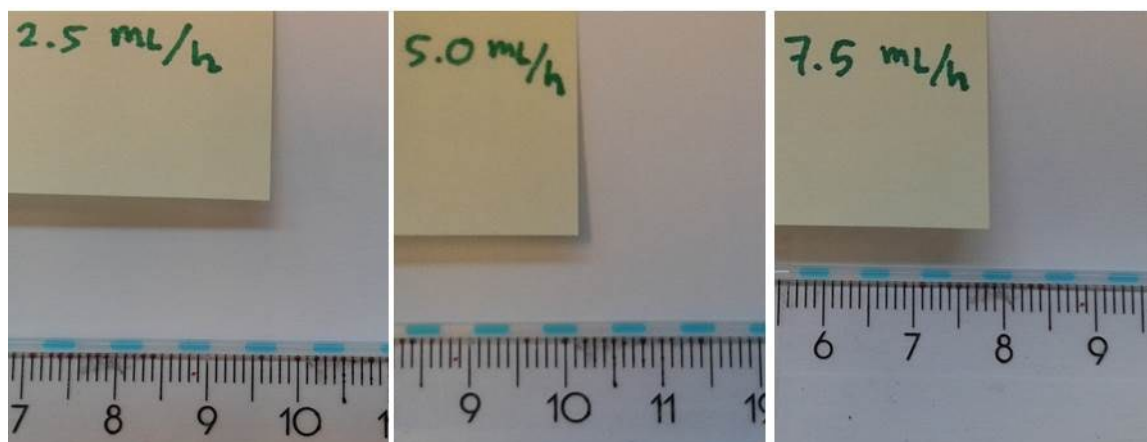


Figure S3. Visual observation of slug formation in the capillary microreactor at different flow rate.

Table S2. Overview of continuous microreactor experiments in 1,2-DCE

Exp	L(cm)	Φ_{tot} (mL/h)	τ (s)	D_S	D_R	α_{op}	Y_S	Y_R	ee_{aq}	ee_{org}
1	10.0	15	12.1	0.30	0.10	3.12	0.32	0.10	9	45
2	20.0	30	12.1	0.37	0.11	3.34	0.37	0.11	10	46
3	10.0	15	12.1	0.29	0.08	3.54	0.33	0.09	9	50
4	10.0	15	12.1	0.33	0.12	2.66	0.35	0.13	8	38
5	10.0	10	18.1	0.32	0.10	3.19	0.33	0.10	9	45
6	20.0	20	18.1	0.39	0.12	3.37	0.39	0.12	11	46
7	10.0	10	18.1	0.28	0.09	3.28	0.33	0.09	8	47
8	10.0	10	18.1	0.39	0.14	2.87	0.40	0.14	10	40
9	15.0	15	18.1	0.35	0.12	2.99	0.35	0.12	9	42
10	30.0	30	18.1	0.41	0.12	3.29	0.40	0.12	11	45
11	15.0	15	18.1	0.32	0.09	3.36	0.36	0.10	9	47
12	20.0	15	24.1	0.38	0.12	3.30	0.38	0.12	11	45
13	40.0	30	24.1	0.41	0.12	3.31	0.40	0.12	11	45
14	22.5	16	25.5	0.36	0.14	2.53	0.38	0.14	9	36
15	22.5	16	25.5	0.43	0.14	3.00	0.30	0.13	11	41
16	22.5	16	25.5	0.37	0.08	4.53	0.27	0.08	12	56
17	15.0	10	27.1	0.36	0.11	3.31	0.36	0.11	10	46
18	30.0	20	27.1	0.45	0.13	3.37	0.43	0.13	12	45
19	10.0	5	36.2	0.38	0.12	3.19	0.38	0.12	10	44
20	20.0	10	36.2	0.39	0.12	3.34	0.39	0.12	11	46
21	40.0	20	36.2	0.45	0.14	3.23	0.43	0.14	12	43
22	10.0	5	36.2	0.29	0.09	3.16	0.34	0.10	8	46
23	10.0	5	36.2	0.42	0.16	2.65	0.42	0.16	10	37
24	30.0	15	36.2	0.50	0.14	3.60	0.46	0.14	14	47
25	60.0	30	36.2	0.48	0.16	3.03	0.45	0.15	12	41
26	22.5	10	40.7	0.47	0.18	2.55	0.32	0.15	11	35
27	22.5	10	40.7	0.40	0.13	3.21	0.29	0.11	11	44
28	50.0	20	45.2	0.42	0.11	3.62	0.44	0.12	12	48
29	50.0	20	45.2	0.48	0.12	4.03	0.33	0.11	14	51
30	15.0	5	54.3	0.37	0.12	2.96	0.37	0.12	10	42
31	30.0	10	54.3	0.47	0.14	3.37	0.44	0.14	13	45
32	60.0	20	54.3	0.49	0.15	3.22	0.45	0.15	13	43
33	20.0	5	72.4	0.45	0.14	3.30	0.43	0.13	12	44
34	40.0	10	72.4	0.46	0.14	3.26	0.43	0.14	12	44
35	60.0	15	72.4	0.51	0.16	3.25	0.47	0.15	13	43
36	50.0	10	90.5	0.54	0.20	2.65	0.35	0.17	12	35
37	100.0	20	90.5	0.54	0.18	2.95	0.51	0.18	13	39
38	100.0	20	90.5	0.44	0.20	2.19	0.44	0.20	9	29
39	100.0	20	90.5	0.43	0.12	3.62	0.45	0.12	12	48

Cont.

Exp	L(cm)	Φ_{tot} (mL/h)	τ (s)	D_S	D_R	α_{op}	Y_S	Y_R	ee_{aq}	ee_{org}
40	50.0	10	90.5	0.42	0.11	3.65	0.44	0.12	12	48
41	50.0	10	90.5	0.52	0.19	2.79	0.34	0.16	12	37
42	50.0	10	90.5	0.58	0.20	2.84	0.37	0.17	14	37
43	100.0	10	181	0.53	0.22	2.38	0.35	0.18	11	31
44	50.0	5	181	0.49	0.17	2.97	0.33	0.14	12	40
45	100.0	10	181	0.45	0.19	2.34	0.45	0.19	10	32
46	100.0	10	181	0.43	0.13	3.34	0.45	0.13	12	45
47	50.0	5	181	0.43	0.12	3.56	0.45	0.12	12	47
48	50.0	5	181	0.59	0.21	2.79	0.37	0.17	14	36
49	50.0	5	181	0.54	0.23	2.38	0.35	0.19	11	31
50	100.0	5	362	0.51	0.16	3.14	0.34	0.14	13	41
51	100.0	5	362	0.65	0.20	3.30	0.40	0.16	16	41
52	100.0	5	362	0.45	0.19	2.38	0.45	0.19	10	32
53	100.0	5	362	0.50	0.14	3.53	0.50	0.14	14	46
54	250.0	10	452.4	0.60	0.24	2.51	0.38	0.19	13	32
55	250.0	10	452.4	0.51	0.15	3.50	0.34	0.13	14	45
56	250.0	5	904.8	0.59	0.20	2.90	0.37	0.17	14	37
57	250.0	5	904.8	0.58	0.19	3.01	0.37	0.16	14	39

Table S3. Overview of continuous microreactor experiments in 1-octanol

Exp	L (cm)	Φ_{tot} (mL/h)	τ (s)	D_S	D_R	α_{op}	Y_S	Y_R	ee_{aq}	ee_{org}
1	12.5	10	22.6	0.40	0.12	3.24	0.28	0.11	11	45
2	12.5	10	22.6	0.40	0.11	3.50	0.28	0.10	11	47
3	12.5	10	22.6	0.39	0.11	3.35	0.28	0.10	11	46
4	12.5	7	32.3	0.46	0.14	3.25	0.32	0.12	12	44
5	12.5	7	32.3	0.46	0.13	3.44	0.31	0.12	13	46
6	25	10	45.2	0.61	0.19	3.19	0.38	0.16	15	41
7	12.5	5	45.2	0.62	0.18	3.37	0.38	0.15	16	42
8	12.5	5	45.2	0.60	0.18	3.28	0.37	0.15	15	42
9	25	7	64.6	0.72	0.23	3.12	0.42	0.19	17	38
10	25	7	64.6	0.73	0.22	3.25	0.42	0.18	17	40
11	25	7	64.6	0.71	0.22	3.21	0.41	0.18	17	40
12	50	10	90.5	0.96	0.29	3.27	0.49	0.23	20	37
13	50	10	90.5	0.93	0.28	3.31	0.48	0.22	20	37
14	50	10	90.5	0.93	0.28	3.29	0.48	0.22	20	37
15	25	5	90.5	0.91	0.27	3.36	0.48	0.21	20	38
16	25	5	90.5	0.89	0.26	3.40	0.47	0.21	20	39
17	50	7	129.3	1.17	0.36	3.28	0.54	0.26	23	35
18	50	7	129.3	1.22	0.38	3.22	0.55	0.27	23	33
19	50	7	129.3	1.09	0.33	3.34	0.52	0.25	22	36
20	50	5	181	1.34	0.39	3.45	0.57	0.28	26	34
21	50	5	181	1.37	0.40	3.40	0.58	0.29	26	34
22	250	15	301.6	1.52	0.47	3.26	0.60	0.32	26	31
23	250	15	301.6	1.52	0.47	3.23	0.60	0.32	26	31
24	250	10	452.4	1.56	0.47	3.31	0.61	0.32	27	31
25	250	10	452.4	1.67	0.50	3.35	0.63	0.33	28	31
26	250	8	565.5	1.61	0.51	3.19	0.62	0.34	27	30
27	250	8	565.5	1.67	0.51	3.29	0.62	0.34	28	30
28	250	5	904.8	1.67	0.54	3.08	0.63	0.35	27	28
29	250	5	904.8	1.53	0.49	3.10	0.61	0.33	26	30