

Biodiesel Production from Castor oil by Two-Step Catalytic Transesterification: Optimization of the Process and Economic Assessment

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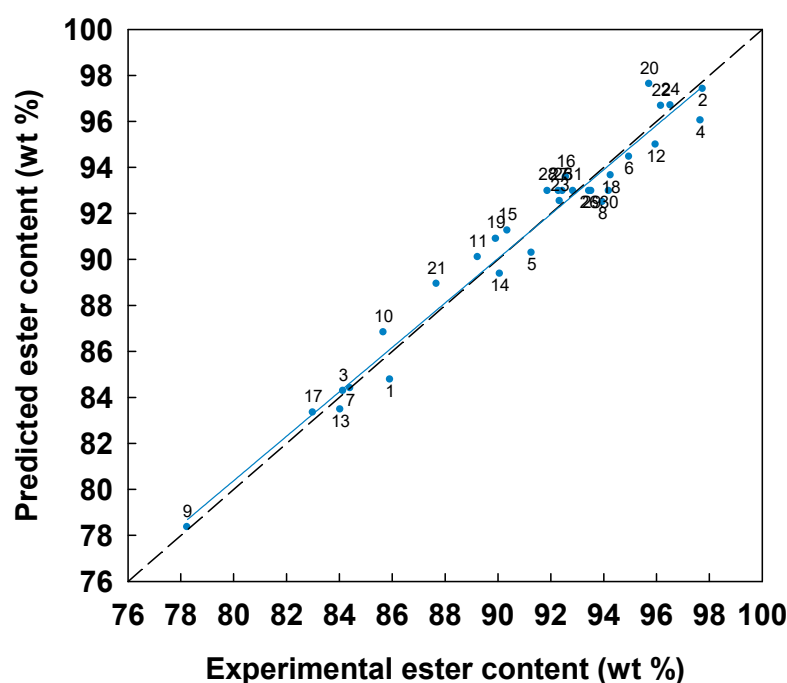


Figure S1. Experimental methyl ester content versus predicted values.

Table S1. Experimental conditions which lead to an ester content greater than 96.5 %, according to the SRM.

Runs	A	B	C	D	Runs	A	B	C	D
1	2	-2	0	2	38	2	0	2	2
2	2	-2	1	1	39	1	1	-2	0
3	2	-2	1	2	40	1	1	-2	1
4	1	-2	2	1	41	2	1	-2	-1
5	1	-2	2	2	42	2	1	-2	0
6	2	-2	2	1	43	2	1	-2	1
7	2	-2	2	2	44	2	1	-2	2
8	2	-1	-1	1	45	1	1	-1	0
9	2	-1	-1	2	46	1	1	-1	1
10	2	-1	0	1	47	2	1	-1	0
11	2	-1	0	2	48	2	1	-1	1
12	1	-1	1	1	49	2	1	-1	2
13	1	-1	1	2	50	1	1	0	0
14	2	-1	1	1	51	1	1	0	1
15	2	-1	1	2	52	2	1	0	0
16	1	-1	2	1	53	2	1	0	1
17	1	-1	2	2	54	2	1	0	2
18	2	-1	2	1	55	1	1	1	1
19	2	-1	2	2	56	2	1	1	1
20	2	0	-2	0	57	0	2	-2	0
21	2	0	-2	1	58	1	2	-2	-1
22	2	0	-2	2	59	1	2	-2	0
23	2	0	-1	0	60	1	2	-2	1
24	2	0	-1	1	61	2	2	-2	-1
25	2	0	-1	2	62	2	2	-2	0
26	1	0	0	1	63	2	2	-2	1
27	2	0	0	0	64	2	2	-2	2
28	2	0	0	1	65	0	2	-1	0
29	2	0	0	2	66	1	2	-1	-1
30	1	0	1	1	67	1	2	-1	0
31	1	0	1	2	68	1	2	-1	1
32	2	0	1	0	69	2	2	-1	-1
33	2	0	1	1	70	2	2	-1	0
34	2	0	1	2	71	2	2	-1	1
35	1	0	2	1	72	1	2	0	0
36	1	0	2	2	73	2	2	0	0
37	2	0	2	1	74	2	2	0	1