

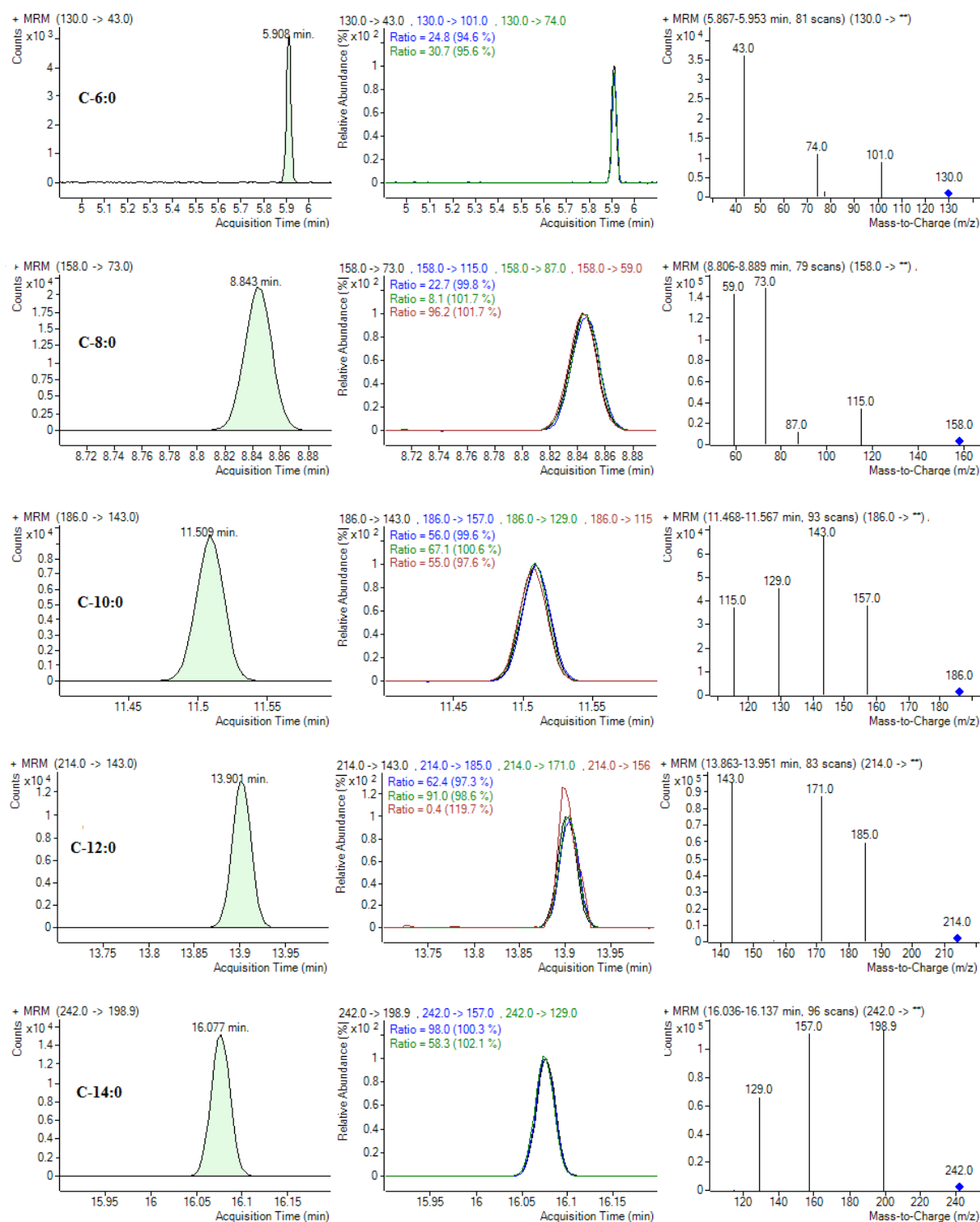


Figure S1a. Chromatogram and spectra (Quantifier and qualifiers) of FAMES (C-6:0, C-8:0, C-10:0, C-12:0 and C-14:0)

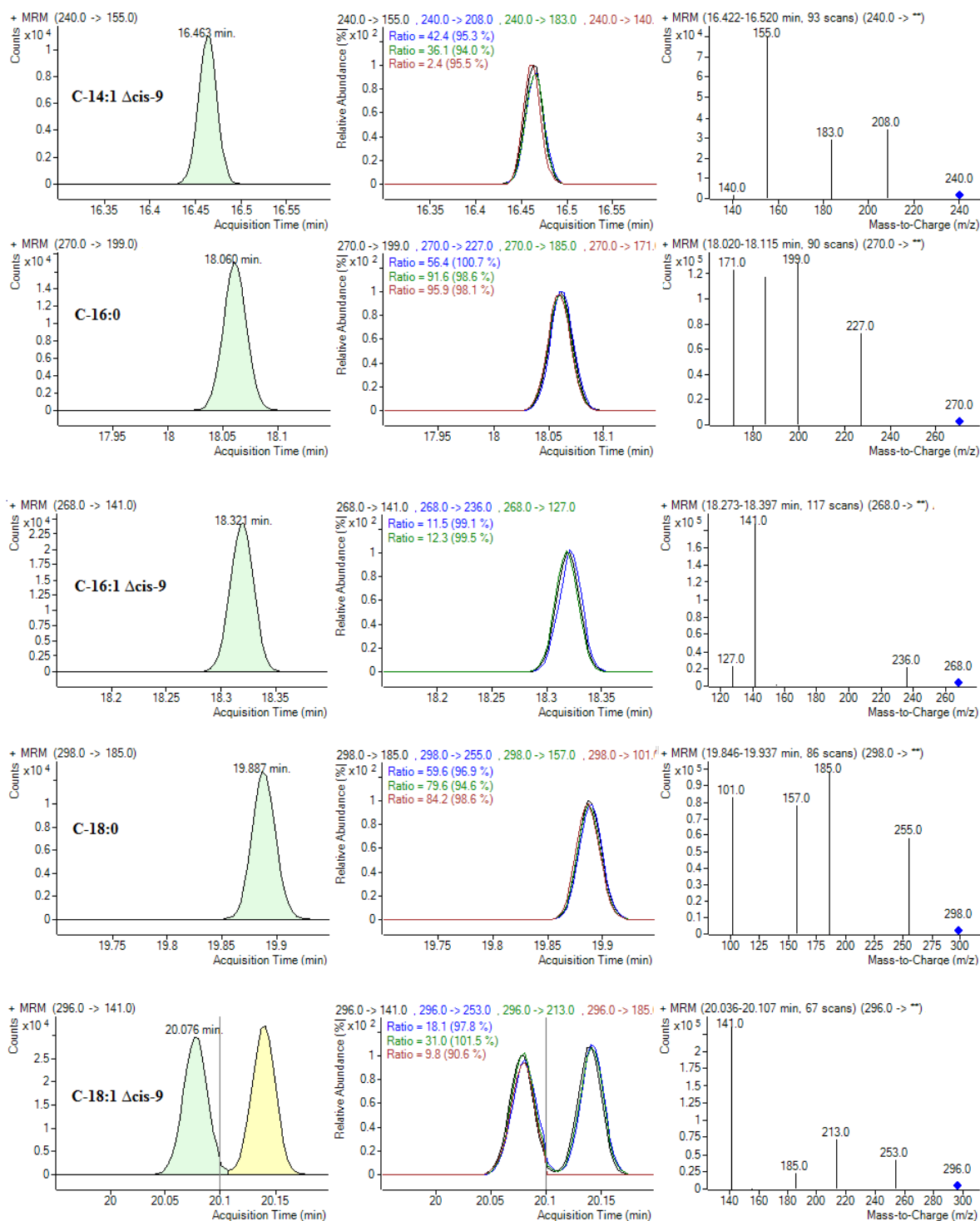


Figure S1b. Chromatogram and spectra (Quantifier and qualifiers) of FAMES (C-14:1 Δ^{cis-9} , C-16:0, C-16:1 Δ^{cis-9} , C-18:0 and C-18:1 Δ^{cis-9})

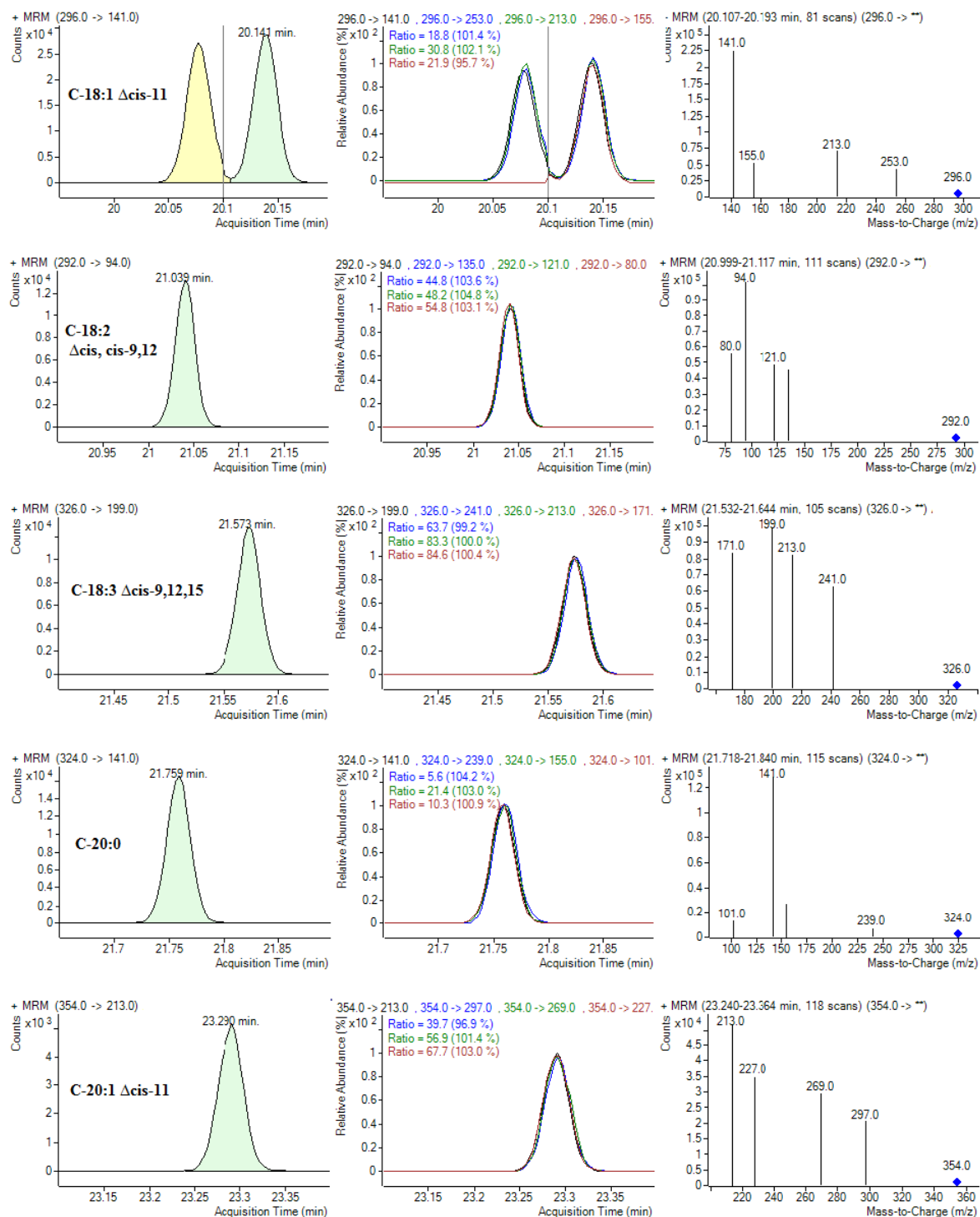


Figure S1c. Chromatogram and spectra (Quantifier and qualifiers) of FAMEs (C-18:1 Δ^{cis-11} , C-18:2 $\Delta^{cis, cis-9,12}$, C-18:3 $\Delta^{cis-9,12,15}$, C-20:0 and C-20:1 Δ^{cis-11})

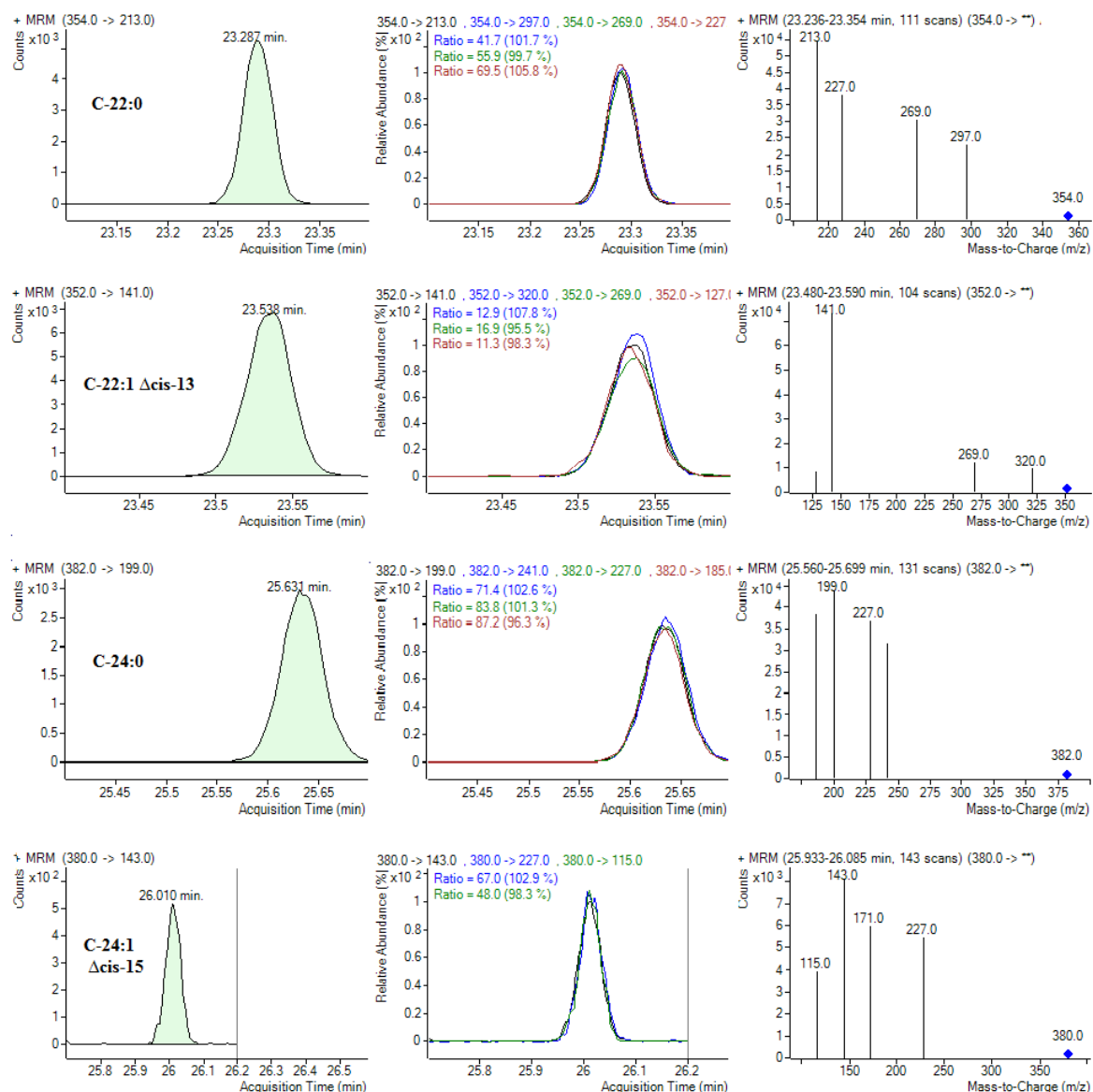


Figure S1d. Chromatogram and spectra (Quantifier and qualifiers) of FAMES (C-22:0, C-22:1 Δ^{cis-13} , C-24:0 and C-24:1 Δ^{cis-15})

Table S1. Amount of fatty acid methyl ester in various biodiesels and their blends^a.

Biodiesel source		FAME (mg/mL of oil)																		
		% Biodiesel	C-6:0	C-8:0	C-10:0	C-12:0	C-14:0	C-14:1 Δ^{cis-9}	C-16:0	C-16:1 Δ^{cis-9}	C-18:0	C-18:1 Δ^{cis-9}	C-18:1 Δ^{cis-11}	C-18:2 $\Delta^{cis-9,12}$	C-18:3 $\Delta^{cis-9,12,15}$	C-20:0	C-20:1 Δ^{cis-11}	C-22:0	C-22:1 Δ^{cis-13}	C-24:0
Microalgae	B-2	ND	ND	ND	0.13	0.14	ND	0.31	ND	0.05	ND	ND	ND	0.04	ND	ND	ND	0.01	ND	ND
	B-5	ND	ND	ND	0.23	0.24	ND	0.55	ND	0.09	0.28	ND	0.25	0.08	ND	ND	ND	0.03	0.01	ND
	B-20	ND	ND	ND	0.63	0.75	ND	1.14	ND	0.23	0.52	ND	0.70	0.28	ND	ND	ND	0.12	0.04	ND
	B-100	ND	ND	ND	2.83	2.72	ND	6.48	ND	0.98	2.37	ND	1.96	1.76	ND	ND	ND	0.59	0.22	ND
Castor oil	B-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-5	ND	ND	ND	ND	ND	ND	0.02	ND	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-20	ND	ND	ND	ND	ND	ND	0.03	ND	0.03	0.20	ND	0.10	ND	ND	ND	ND	ND	ND	ND
	B-100	ND	ND	ND	ND	ND	ND	0.18	ND	0.40	1.99	ND	0.48	ND	ND	ND	ND	ND	ND	ND
Coconut	B-2	0.43	1.53	0.89	6.99	2.95	ND	1.13	ND	0.32	0.81	0.85	0.31	ND	ND	ND	ND	ND	ND	ND
	B-5	1.02	2.55	2.14	16.51	7.32	ND	2.80	ND	0.79	1.74	2.02	0.62	ND	ND	ND	ND	ND	ND	ND
	B-20	4.25	20.15	10.51	68.53	28.48	ND	11.16	ND	3.11	6.77	8.36	2.17	ND	ND	ND	ND	ND	ND	ND
	B-100	20.66	64.38	37.46	268.82	126.70	ND	52.29	ND	15.34	33.93	41.01	9.63	ND	ND	ND	ND	ND	ND	ND
Corn	B-2	ND	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-5	ND	ND	ND	ND	ND	ND	0.03	ND	ND	0.09	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-20	ND	ND	ND	ND	ND	ND	0.07	ND	0.02	0.31	ND	0.27	ND	ND	ND	ND	ND	ND	ND
	B-100	ND	ND	ND	ND	ND	ND	0.34	ND	0.12	1.69	0.39	1.23	ND	ND	ND	ND	ND	ND	ND

Table S1 (Cont.)

		Cotton seed																			
		B-2	B-5	B-20	B-100	B-2	B-5	B-20	B-100	B-2	B-5	B-20	B-100	B-2	B-5	B-20	B-100	B-2	B-5	B-20	B-100
Cotton seed	B-2	ND	ND	ND	ND	ND	ND	0.04	ND	ND	0.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-5	ND	ND	ND	ND	ND	ND	0.12	ND	0.02	0.17	ND	0.14	ND	ND	ND	ND	ND	ND	ND	ND
	B-20	ND	ND	ND	ND	ND	ND	0.47	ND	0.06	0.30	ND	0.61	ND	ND	ND	ND	ND	ND	ND	ND
	B-100	ND	ND	ND	ND	ND	ND	1.79	ND	0.27	1.97	ND	2.27	ND	ND	ND	ND	ND	ND	ND	ND
Linseed	B-2	ND	ND	ND	ND	0.02	ND	0.82	ND	0.69	2.62	3.13	1.59	7.57	0.03	ND	ND	ND	ND	ND	ND
	B-5	ND	ND	ND	ND	0.03	ND	1.91	ND	1.62	5.77	7.09	3.48	16.76	0.07	ND	ND	ND	ND	ND	ND
	B-20	ND	ND	ND	ND	0.08	ND	6.29	ND	5.51	16.40	20.49	11.15	47.87	0.22	ND	ND	ND	ND	ND	ND
	B-100	ND	ND	ND	ND	0.43	ND	35.27	ND	28.99	97.17	120.69	61.82	276.29	1.06	ND	ND	ND	ND	ND	ND
Neem	B-2	ND	ND	ND	ND	0.02	ND	0.02	ND	0.02	0.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-5	ND	ND	ND	ND	0.03	ND	0.04	ND	0.03	0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-20	ND	ND	ND	ND	0.03	ND	0.15	ND	0.10	0.35	0.28	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-100	ND	ND	ND	ND	0.07	ND	0.85	ND	0.60	2.43	1.56	ND	ND	0.05	ND	ND	ND	ND	ND	ND
Peanut	B-2	ND	ND	ND	ND	ND	ND	0.99	ND	0.41	4.52	5.52	3.33	ND	0.18	0.19	0.30	ND	0.16	ND	ND
	B-5	ND	ND	ND	ND	ND	ND	2.24	ND	0.89	9.72	12.07	7.22	ND	0.36	0.37	0.63	ND	0.31	ND	ND
	B-20	ND	ND	ND	ND	ND	ND	11.24	ND	5.04	39.89	50.08	33.84	ND	2.14	2.01	3.67	ND	1.89	ND	ND
	B-100	ND	ND	ND	ND	ND	ND	47.80	ND	20.04	177.51	221.90	143.93	ND	8.08	7.70	13.95	ND	7.06	ND	ND
Rapeseed	B-2	ND	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B-5	ND	ND	ND	ND	0.01	ND	0.03	ND	ND	0.20	0.10	ND	ND	ND	0.03	ND	ND	ND	ND	ND
	B-20	ND	ND	ND	ND	0.03	ND	0.13	ND	0.04	0.65	0.66	ND	0.06	ND	0.07	ND	ND	ND	ND	ND
	B-100	ND	ND	ND	ND	0.10	ND	0.45	ND	0.18	2.84	2.07	0.28	0.27	ND	0.31	ND	ND	ND	ND	ND

Table S1. (Cont.)

Soyabean	B-2	ND	ND	ND	ND	ND	ND	0.56	ND	0.60	1.21	1.35	6.77	0.26	0.04	0.04	0.09	ND	ND	ND
	B-5	ND	ND	ND	ND	ND	ND	1.23	ND	1.24	2.30	2.72	13.62	0.53	0.09	0.13	0.23	ND	ND	ND
	B-20	ND	ND	ND	ND	ND	ND	5.16	ND	5.78	9.97	12.38	48.12	2.45	0.37	0.17	0.77	ND	ND	ND
	B-100	ND	ND	ND	ND	ND	ND	25.31	ND	27.90	49.93	61.16	245.97	11.03	1.66	0.91	3.46	ND	ND	ND
Sunflower	B-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.03	ND	ND
	B-5	ND	ND	ND	ND	ND	ND	0.01	ND	ND	ND	ND	ND	ND	ND	0.02	ND	0.07	ND	ND
	B-20	ND	ND	ND	ND	ND	ND	0.02	ND	0.01	0.29	ND	ND	ND	ND	0.08	0.01	0.28	ND	ND
	B-100	ND	ND	ND	ND	ND	ND	0.08	ND	0.06	1.46	0.11	ND	ND	0.04	0.38	0.05	1.42	ND	ND
Waste cooking oil	B-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.01	ND	ND
	B-5	ND	ND	ND	ND	ND	ND	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.03	ND	0.01
	B-20	ND	ND	ND	ND	ND	ND	0.02	ND	0.01	0.19	ND	ND	ND	ND	0.03	ND	0.11	ND	0.06
	B-100	ND	ND	ND	ND	ND	ND	0.10	ND	0.05	0.95	0.21	0.11	ND	0.02	0.15	0.02	0.56	0.01	0.20
Biodiesel-biodiesel blend	BB-2	ND	ND	ND	ND	ND	ND	0.19	ND	0.13	0.43	0.74	0.42	0.12	0.03	0.02	0.03	0.02	ND	ND
	BB-5	0.17	0.33	0.23	1.54	0.69	ND	0.73	0.02	0.35	1.68	1.94	2.47	0.38	0.06	0.07	0.07	0.06	ND	ND
	BB-20	0.23	1.14	0.70	2.38	2.29	0.04	2.45	0.04	1.14	5.08	6.22	8.07	1.31	0.18	0.17	0.30	0.21	ND	0.07
	BB-100	1.73	5.10	3.13	25.62	11.24	0.16	12.22	0.20	5.71	26.60	31.77	40.28	6.17	0.87	0.99	1.47	1.12	ND	0.33

*ND=Not Detected

^a Calculations were carried out by using dilution factors.