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Origin of secondary fatty alcohols in atmospheric aerosols in a cool–temperate forest based on their mass size distributions

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Table S1: Concentrations of secondary fatty alcohols (SFAs) in each stage of aerosol sample. ND indicates that the compound was not detected (i.e. below the lower detection limit).

(a) *n*-nonacosan-10-ol (SFA3)

Season	Sampling Period	Concentration (ng m^{-3})								
		Backup (D_p < 0.39 μm)	Stage 8 (D_p = 0.39–0.58 μm)	Stage 7 (D_p = 0.58–1.0 μm)	Stage 6 (D_p = 1.0–1.9 μm)	Stage 5 (D_p = 1.9–3.0 μm)	Stage 4 (D_p = 3.0–4.3 μm)	Stage 3 (D_p = 4.3–6.4 μm)	Stage 2 (D_p = 6.4–10.0 μm)	Stage 1 (D_p > 10.0 μm)
Spring	April 26–May 7, 2010	0.52	0.20	0.65	1.25	1.11	0.87	0.55	1.09	3.09
	May 7–14, 2010	0.01	0.00	0.00	0.02	0.07	0.08	0.10	0.06	0.15
	May 21–28, 2010	0.24	0.04	0.29	1.22	1.92	2.09	3.71	4.59	6.99
Summer	June 22–29, 2009	0.21	0.14	0.48	1.46	2.34	3.61	1.82	1.11	4.58
	July 8–16, 2010	0.04	0.02	0.06	0.07	0.49	0.30	0.22	0.13	0.51
	August 6–13, 2010	0.84	0.05	0.02	0.63	0.33	0.19	0.11	0.10	0.20
Autumn	October 6–13, 2009	0.18	0.09	0.42	1.04	1.45	0.86	0.60	0.64	0.65
	October 13–21, 2009	0.35	0.20	0.80	1.71	1.65	1.66	0.81	0.92	1.43
	October 21–28, 2009	0.09	0.08	0.29	1.11	1.00	0.58	0.50	0.47	0.60

(b) *n*-nonacosan-5,10-diol (SFA5)

Season	Sampling Period	Concentration (ng m^{-3})								
		Backup (D_p < 0.39 μm)	Stage 8 (D_p = 0.39–0.58 μm)	Stage 7 (D_p = 0.58–1.0 μm)	Stage 6 (D_p = 1.0–1.9 μm)	Stage 5 (D_p = 1.9–3.0 μm)	Stage 4 (D_p = 3.0–4.3 μm)	Stage 3 (D_p = 4.3–6.4 μm)	Stage 2 (D_p = 6.4–10.0 μm)	Stage 1 (D_p > 10.0 μm)
Spring	April 26–May 7, 2010	0.01	0.00	0.01	0.04	0.03	0.02	0.01	0.04	0.14
	May 7–14, 2010	ND	ND	ND	ND	ND	ND	ND	0.00	0.00
	May 21–28, 2010	0.01	ND	0.01	0.05	0.10	0.10	0.20	0.29	0.55
Summer	June 22–29, 2009	ND	0.01	0.02	0.06	0.11	0.19	0.09	0.05	0.29
	July 8–16, 2010	ND	ND	ND	ND	0.02	0.01	0.01	0.01	0.03
	August 6–13, 2010	0.05	ND	ND	0.03	0.03	0.01	0.01	0.01	0.01
Autumn	October 6–13, 2009	ND	0.00	0.02	0.04	0.09	0.05	0.03	0.03	0.03
	October 13–21, 2009	ND	ND	0.03	0.06	0.09	0.01	0.03	0.05	0.08
	October 21–28, 2009	ND	ND	0.01	0.03	0.04	0.02	0.01	0.04	0.03

(c) *n*-heptacosan-10-diol (SFA1)

Season	Sampling Period	Concentration (ng m^{-3})								
		Backup (D_p < 0.39 μm)	Stage 8 (D_p = 0.39–0.58 μm)	Stage 7 (D_p = 0.58–1.0 μm)	Stage 6 (D_p = 1.0–1.9 μm)	Stage 5 (D_p = 1.9–3.0 μm)	Stage 4 (D_p = 3.0–4.3 μm)	Stage 3 (D_p = 4.3–6.4 μm)	Stage 2 (D_p = 6.4–10.0 μm)	Stage 1 (D_p > 10.0 μm)
Spring	April 26–May 7, 2010	0.02	0.01	ND	0.02	0.02	0.02	0.01	0.06	0.05
	May 7–14, 2010	ND	ND	ND	ND	0.00	0.01	0.01	0.01	0.03
	May 21–28, 2010	0.01	ND	0.01	0.02	0.04	0.05	0.08	0.11	0.19
Summer	June 22–29, 2009	0.03	0.01	ND	ND	0.02	0.01	ND	ND	0.00
	July 8–16, 2010	ND	ND	ND	0.01	0.02	ND	0.01	0.00	0.02
	August 6–13, 2010	ND	ND	ND	0.03	0.06	0.08	0.06	0.02	0.09
Autumn	October 6–13, 2009	ND	ND	ND	0.05	0.09	0.06	0.03	0.01	0.01
	October 13–21, 2009	ND	ND	ND	0.04	0.17	0.14	0.05	0.03	0.03
	October 21–28, 2009	ND	ND	ND	0.02	0.09	0.07	0.04	0.01	0.01

(d) *n*-nonacosan-10,13-diol (SFA4))

Season	Sampling Period	Concentration (ng m^{-3})								
		Backup (D_p < 0.39 μm)	Stage 8 (D_p = 0.39–0.58 μm)	Stage 7 (D_p = 0.58–1.0 μm)	Stage 6 (D_p = 1.0–1.9 μm)	Stage 5 (D_p = 1.9–3.0 μm)	Stage 4 (D_p = 3.0–4.3 μm)	Stage 3 (D_p = 4.3–6.4 μm)	Stage 2 (D_p = 6.4–10.0 μm)	Stage 1 (D_p > 10.0 μm)
Spring	April 26–May 7, 2010	ND	ND	ND	0.02	0.02	0.01	0.01	0.02	0.04
	May 7–14, 2010	ND	ND	ND	ND	ND	ND	ND	ND	ND
	May 21–28, 2010	ND	ND	ND	0.03	0.03	0.03	0.08	0.09	0.18
Summer	June 22–29, 2009	ND	ND	ND	0.01	0.03	0.04	0.02	0.01	0.07
	July 8–16, 2010	ND	ND	ND	ND	ND	ND	ND	ND	0.01
	August 6–13, 2010	0.02	ND	ND	ND	ND	ND	ND	ND	ND
Autumn	October 6–13, 2009	ND	ND	ND	0.01	0.02	0.01	0.01	0.01	0.01
	October 13–21, 2009	ND	ND	ND	ND	0.02	0.02	0.01	0.02	0.02
	October 21–28, 2009	ND	ND	ND	0.01	0.01	0.00	0.01	0.00	0.01

(e) *n*-heptacosan-5,10-diol (SFA2)

Season	Sampling Period	Concentration (ng m^{-3})								
		Backup (D_p < 0.39 μm)	Stage 8 (D_p = 0.39–0.58 μm)	Stage 7 (D_p = 0.58–1.0 μm)	Stage 6 (D_p = 1.0–1.9 μm)	Stage 5 (D_p = 1.9–3.0 μm)	Stage 4 (D_p = 3.0–4.3 μm)	Stage 3 (D_p = 4.3–6.4 μm)	Stage 2 (D_p = 6.4–10.0 μm)	Stage 1 (D_p > 10.0 μm)
Spring	April 26–May 7, 2010	ND	ND	ND	ND	ND	ND	ND	0.00	0.02
	May 7–14, 2010	ND	ND	ND	ND	ND	ND	ND	ND	ND
	May 21–28, 2010	ND	ND	ND	0.01	0.01	0.01	0.02	0.02	0.05
Summer	June 22–29, 2009	ND	ND	ND	0.00	0.01	ND	0.01	0.00	0.02
	July 8–16, 2010	ND	ND	ND	ND	ND	ND	ND	ND	ND
	August 6–13, 2010	ND	ND	ND	ND	ND	ND	ND	ND	ND
Autumn	October 6–13, 2009	ND	ND	ND	ND	ND	ND	ND	ND	ND
	October 13–21, 2009	ND	ND	ND	ND	ND	ND	ND	ND	ND
	October 21–28, 2009	ND	ND	ND	ND	ND	ND	ND	ND	0.00

Figure S1: Scatterplots of the mass concentrations of n-nonacosan-10-ol vs. those of (a) sucrose, (b) trehalose, (c) arabitol, and (d) mannitol in autumn.