

Table 1: Calculated contributions to total carbon ($\mu\text{g C m}^{-3}$) at Birkenes from LHS analysis, PM10, Summer. B.E. is best estimate (50th percentile), range is 10th-90th percentiles of LHS results.

	05.08-12.08		12.08-19.08		19.08-26.08		26.08-02.09	
	B.E.	Range	B.E.	Range	B.E.	Range	B.E.	Range
ECbb	0.01	(0.00–0.03)	0.00	(0.00–0.01)	0.02	(0.00–0.03)	0.00	(0.00–0.02)
ECff	0.13	(0.08–0.17)	0.02	(0.01–0.02)	0.15	(0.10–0.20)	0.08	(0.08–0.09)
OCbb	0.02	(0.00–0.03)	0.01	(0.01–0.02)	0.07	(0.04–0.09)	0.01	(0.00–0.02)
OCfossil	0.12	(0.07–0.17)	0.06	(0.04–0.08)	0.14	(0.07–0.17)	0.04	(0.02–0.04)
BSOA	0.94	(0.78–1.08)	0.24	(0.14–0.34)	0.69	(0.56–0.81)	0.48	(0.39–0.54)
OCpbap	0.43	(0.30–0.58)	0.31	(0.21–0.41)	0.38	(0.27–0.49)	0.24	(0.18–0.32)
OCpbs	0.19	(0.13–0.23)	0.13	(0.09–0.16)	0.19	(0.13–0.24)	0.10	(0.07–0.12)
OCpbc	0.24	(0.12–0.38)	0.18	(0.09–0.29)	0.18	(0.09–0.29)	0.14	(0.09–0.23)

Table 2: Calculated contributions to total carbon ($\mu\text{g C m}^{-3}$) at Hyytiala from LHS analysis, PM10, Summer. B.E. is best estimate (50th percentile), range is 10th-90th percentiles of LHS results.

	02.09-09.09		12.08-19.08		19.08-26.08		26.08-02.09	
	B.E.	Range	B.E.	Range	B.E.	Range	B.E.	Range
ECbb	0.02	(0.00–0.05)	0.01	(0.00–0.03)	0.01	(0.00–0.03)	0.01	(0.00–0.04)
ECff	0.12	(0.05–0.16)	0.03	(0.01–0.04)	0.07	(0.03–0.08)	0.10	(0.06–0.13)
OCbb	0.07	(0.03–0.08)	0.03	(0.01–0.04)	0.06	(0.03–0.06)	0.06	(0.04–0.08)
OCfossil	0.14	(0.08–0.19)	0.06	(0.03–0.08)	0.11	(0.06–0.14)	0.13	(0.08–0.17)
BSOA	1.59	(1.33–1.79)	0.73	(0.59–0.85)	0.93	(0.79–1.05)	1.06	(0.89–1.21)
OCpbap	0.73	(0.51–0.96)	0.45	(0.33–0.58)	0.43	(0.31–0.55)	0.52	(0.38–0.66)
OCpbs	0.35	(0.24–0.43)	0.24	(0.17–0.30)	0.22	(0.14–0.27)	0.27	(0.19–0.34)
OCpbc	0.38	(0.19–0.61)	0.21	(0.10–0.33)	0.21	(0.11–0.34)	0.25	(0.13–0.40)

Table 3: Calculated contributions to total carbon ($\mu\text{g C m}^{-3}$) at Lille Valby from LHS analysis, PM10, Summer. B.E. is best estimate (50th percentile), range is 10th-90th percentiles of LHS results.

	05.08-12.08		12.08-19.08		19.08-26.08		26.08-02.09	
	B.E.	Range	B.E.	Range	B.E.	Range	B.E.	Range
ECbb	0.03	(0.00–0.11)	0.01	(0.00–0.03)	0.03	(0.00–0.04)	0.04	(0.00–0.07)
ECff	0.34	(0.17–0.44)	0.15	(0.09–0.21)	0.28	(0.18–0.39)	0.27	(0.17–0.38)
OCbb	0.13	(0.06–0.17)	0.06	(0.04–0.07)	0.13	(0.08–0.16)	0.17	(0.10–0.21)
OCfossil	0.47	(0.28–0.60)	0.15	(0.08–0.18)	0.27	(0.16–0.36)	0.28	(0.16–0.38)
BSOA	3.66	(3.24–3.96)	0.56	(0.41–0.68)	0.93	(0.75–1.05)	0.66	(0.51–0.78)
OCpbap	0.88	(0.55–1.21)	0.38	(0.25–0.51)	0.38	(0.24–0.53)	0.31	(0.21–0.43)
OCpbs	0.23	(0.17–0.28)	0.14	(0.09–0.17)	0.13	(0.08–0.16)	0.10	(0.07–0.12)
OCpbc	0.65	(0.33–0.99)	0.24	(0.12–0.38)	0.25	(0.12–0.41)	0.21	(0.10–0.33)

Table 4: Calculated contributions to total carbon ($\mu\text{g C m}^{-3}$) at Vavihill from LHS analysis, PM10, Summer. B.E. is best estimate (50th percentile), range is 10th-90th percentiles of LHS results.

	05.08-12.08		12.08-19.08		19.08-26.08		26.08-02.09	
	B.E.	Range	B.E.	Range	B.E.	Range	B.E.	Range
ECbb	0.01	(0.00–0.04)	0.01	(0.00–0.02)	0.03	(0.00–0.03)	0.02	(0.00–0.03)
ECff	0.20	(0.13–0.27)	0.11	(0.08–0.13)	0.22	(0.17–0.26)	0.17	(0.14–0.20)
OCbb	0.06	(0.02–0.07)	0.06	(0.03–0.07)	0.10	(0.05–0.12)	0.07	(0.04–0.08)
OCfossil	0.18	(0.11–0.24)	0.09	(0.06–0.11)	0.16	(0.10–0.21)	0.11	(0.07–0.14)
BSOA	1.39	(1.24–1.50)	0.37	(0.26–0.46)	0.96	(0.84–1.05)	0.76	(0.66–0.84)
OCpbap	0.37	(0.24–0.48)	0.29	(0.20–0.38)	0.26	(0.17–0.34)	0.23	(0.15–0.31)
OCpbs	0.15	(0.11–0.18)	0.12	(0.08–0.16)	0.10	(0.07–0.12)	0.08	(0.05–0.10)
OCpbc	0.21	(0.11–0.33)	0.16	(0.08–0.26)	0.16	(0.09–0.24)	0.14	(0.07–0.23)

Table 5: Calculated percentage contributions to total carbon at Lille Valby from LHS analysis, PM10, Summer. B.E. is best estimate (50th percentile), range is 10th-90th percentiles of LHS results.

	05.08-12.08		12.08-19.08		19.08-26.08		26.08-02.09	
	B.E.	Range	B.E.	Range	B.E.	Range	B.E.	Range
ECbb	0.60	(0-2)	1.10	(0-2)	1.60	(0-2)	2.40	(0-4)
ECff	6.20	(3-8)	11.60	(7-16)	14.00	(9-19)	15.70	(10-22)
OCbb	2.30	(1-3)	4.50	(3-5)	6.40	(4-8)	9.70	(6-12)
OCfossil	8.50	(5-11)	11.10	(6-14)	13.50	(8-18)	16.30	(9-22)
BSOA	66.60	(59-72)	42.90	(31-52)	45.70	(37-52)	37.80	(29-45)
OCpbap	16.00	(10-22)	28.80	(19-39)	18.80	(12-26)	18.00	(12-25)
OCpbs	4.20	(3-5)	10.30	(7-13)	6.30	(4-8)	5.90	(4-7)
OCpbc	11.80	(6-18)	18.40	(9-29)	12.50	(6-20)	12.10	(6-19)

Table 6: Calculated percentage contributions to total carbon at Birkenes from LHS analysis, PM10, Summer. B.E. is best estimate (50th percentile), range is 10th-90th percentiles of LHS results.

	05.08-12.08		12.08-19.08		19.08-26.08		26.08-02.09	
	B.E.	Range	B.E.	Range	B.E.	Range	B.E.	Range
ECbb	0.50	(0-2)	0.50	(0-2)	1.20	(0-2)	0.50	(0-2)
ECff	7.90	(5-10)	2.50	(1-3)	10.20	(7-14)	9.90	(9-11)
OCbb	1.40	(0-2)	1.80	(1-3)	4.70	(3-6)	1.10	(0-2)
OCfossil	7.20	(4-10)	9.90	(7-12)	9.40	(5-12)	4.20	(2-5)
BSOA	56.90	(47-65)	37.70	(21-52)	48.30	(39-56)	56.20	(46-63)
OCpbap	26.20	(18-35)	47.70	(33-64)	26.20	(19-34)	28.40	(21-37)
OCpbs	11.60	(8-14)	20.20	(14-25)	13.50	(9-17)	11.60	(8-14)
OCpbc	14.60	(7-23)	27.50	(14-44)	12.70	(6-20)	16.90	(10-27)

Table 7: Calculated percentage contributions to total carbon at Vavihill from LHS analysis, PM10, Summer. B.E. is best estimate (50th percentile), range is 10th-90th percentiles of LHS results.

	05.08-12.08		12.08-19.08		19.08-26.08		26.08-02.09	
	B.E.	Range	B.E.	Range	B.E.	Range	B.E.	Range
ECbb	0.60	(0-2)	1.50	(0-2)	1.50	(0-2)	1.30	(0-2)
ECff	8.80	(6-12)	11.90	(9-14)	12.50	(10-15)	12.70	(10-15)
OCbb	2.60	(1-3)	5.90	(3-7)	5.60	(3-7)	4.80	(3-6)
OCfossil	8.30	(5-11)	9.80	(6-12)	9.50	(6-12)	8.00	(5-10)
BSOA	63.00	(56-68)	40.00	(28-49)	55.80	(49-61)	56.30	(49-62)
OCpbap	16.70	(11-22)	30.90	(22-41)	15.00	(10-20)	16.90	(11-23)
OCpbs	7.00	(5-8)	13.40	(9-17)	5.90	(4-7)	6.20	(4-7)
OCpbc	9.70	(5-15)	17.50	(9-28)	9.10	(5-14)	10.70	(5-17)

Table 8: Calculated percentage contributions to total carbon at Hyytiala from LHS analysis, PM10, Summer. B.E. is best estimate (50th percentile), range is 10th-90th percentiles of LHS results.

	02.09-09.09		12.08-19.08		19.08-26.08		26.08-02.09	
	B.E.	Range	B.E.	Range	B.E.	Range	B.E.	Range
ECbb	0.70	(0-2)	0.60	(0-2)	0.80	(0-2)	0.80	(0-2)
ECff	4.60	(2-6)	2.60	(1-3)	4.20	(2-5)	5.40	(3-7)
OCbb	2.80	(1-3)	2.50	(1-3)	3.50	(2-4)	3.20	(2-4)
OCfossil	5.20	(3-7)	4.20	(2-6)	6.90	(4-9)	7.00	(4-9)
BSOA	59.40	(50-67)	55.70	(45-65)	57.90	(49-65)	56.10	(47-64)
OCpbap	27.30	(19-36)	34.40	(25-44)	26.70	(19-34)	27.50	(20-35)
OCpbs	13.00	(9-16)	18.30	(13-23)	13.60	(9-17)	14.40	(10-18)
OCpbc	14.30	(7-23)	16.10	(8-25)	13.10	(7-21)	13.10	(7-21)