

DATA S1: Hällekis-Thorsberg section - chrome-spinel chemical results

Element composition (wt%) of chrome-spinel grains from a composite section at Kinnekulle (Hällekis and Thorsberg quarries). Most data are from the present study, but some data for grains $>63\ \mu\text{m}$ from Schmitz and Häggström (2006) (88) and Häggström and Schmitz (2007) (89). All analyses on polished grains. In the table: n.d. = not detected. Total weight percentages below ~ 97 wt% and above ~ 103 wt% are marked in red.

Sample depths are given relative to the base of the Arkeologen bed. All samples from below the reference zero level are from the Hällekis Quarry, and all samples above this level are from the Thorsberg Quarry. Because of the high concentrations of extraterrestrial grains in the sediment following the LCPB event the samples from the Thorsberg Quarry were only studied in the $>63\ \mu\text{m}$ fraction.

Division of grains in different groups

Chrome-spinel grains are categorized as follows:

- EC – Grains from equilibrated ordinary chondrites (petrological types 4-6) with oxide weight percentages within the ranges of Cr_2O_3 : ~ 53.0 - 62.0 , FeO : ~ 23.0 - 32.0 , Al_2O_3 : ~ 4.5 - 8.5 , MgO : ~ 1.3 - 4.5 , V_2O_3 : ~ 0.55 - 0.95 , and TiO_2 : ~ 1.40 - 4.50 (for more extensive discussions, see *II*, p. 127). Small deviations from these values in one or two oxides are marked with red color in the table. The FeO values of EC grains can sometimes be lower than 23% because of replacement by MnO and/or ZnO , see (57).
- OtC-V – Other chrome spinel, i.e. grains that do not have the typical equilibrated ordinary chondritic composition, but contain ≥ 0.45 wt% V_2O_3 and a $\text{Cr}_2\text{O}_3/\text{FeO}$ ratio ≥ 1.45 , indicating a likely meteoritic origin.
- OtC – Other chrome-spinel grains, but with $\text{V}_2\text{O}_3 < 0.45$ wt% or ≥ 0.45 wt% V_2O_3 together with a $\text{Cr}_2\text{O}_3/\text{FeO}$ ratio < 1.45 . The OtC grains are likely of terrestrial origin.

The type of grains here referred to as OtC grains have in our previous studies been referred to as OC grains, but we have changed acronym in order to avoid confusion with OC as being used for "ordinary chondrites" in other research.

Results

+10.20 to +10.30 m

Sample weight 18.8 kg.

EC grains $>63\ \mu\text{m}$

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
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Cr 1	6.27	4.89	2.66	0.67	61.75	0.49	23.01	0.40	100.1
Cr 2	2.81	6.08	3.09	0.70	61.07	0.80	26.44	0.50	101.5
Cr 4	2.82	5.92	3.01	0.69	59.27	0.82	28.44	n.d.	101.0
Cr 5	3.61	6.15	3.52	0.69	60.18	0.86	25.02	n.d.	100.0
Cr 6	2.87	5.78	3.34	0.78	58.65	0.81	27.49	0.41	100.1
Cr 7	3.36	5.59	3.56	0.72	60.09	0.62	27.27	n.d.	101.2
Cr 8	2.50	4.70	3.18	0.85	60.06	1.00	28.32	0.68	101.3
Cr 9	2.96	5.82	3.39	0.66	59.17	0.93	27.91	n.d.	100.9
Cr 11	2.80	5.71	3.31	0.69	59.96	0.81	27.73	0.49	101.5
Cr 12	4.29	6.66	2.03	0.66	60.83	1.24	24.68	0.98	101.4
Cr 13	3.68	5.67	3.21	0.75	58.78	0.97	26.29	0.38	99.74
Cr 14	6.07	5.84	2.78	0.70	59.16	0.70	24.44	n.d.	99.68
Cr 15	2.89	5.49	3.23	0.75	59.09	1.02	27.86	0.42	100.8
Cr 16 [§]	3.35	6.31	2.80	0.87	59.74	0.71	25.76	0.44	100.7
Cr 18	2.54	5.96	3.88	0.86	57.81	0.75	28.80	n.d.	100.6

[§]Also NiO 0.71 wt%.

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
Cr 3	11.03	17.15	n.d.	n.d.	53.13	0.52	17.94	n.d.	99.77
Cr 10	9.66	13.38	n.d.	n.d.	52.38	0.52	23.99	n.d.	99.94
Cr 17	6.20	16.41	n.d.	n.d.	48.13	0.74	28.18	0.42	100.1
Cr 19	18.09	23.18	n.d.	n.d.	40.07	0.52	17.53	n.d.	99.39
Cr 20	9.40	9.01	0.32	n.d.	56.86	n.d.	23.45	n.d.	99.05

+8.50 to +8.65 m

Sample weight 28.0 kg. From Schmitz and Häggström (2006).

EC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	1.61	5.54	2.78	0.69	60.58	0.87	26.65	0.43	99.13
2	2.37	6.25	3.47	0.76	60.74	0.94	24.52	0.30	99.35
3	4.13	6.40	2.54	0.84	60.47	0.92	24.03	0.35	99.68
4	2.84	5.78	3.49	0.72	60.66	0.94	25.13	0.64	100.2
5	2.50	6.25	3.10	0.78	62.47	0.93	23.01	0.56	99.61
6	2.51	6.20	3.12	0.72	59.34	0.97	26.60	0.33	99.80
7	2.81	5.87	3.27	0.69	58.39	1.13	26.95	0.48	99.60
8	4.32	6.45	3.14	0.80	60.80	0.81	22.77	0.23	99.32
9	1.97	6.44	3.11	0.76	60.83	0.97	25.08	0.26	99.42
10	2.82	6.13	3.01	0.73	60.41	0.95	25.00	0.45	99.50
11	2.45	6.05	2.96	0.76	59.20	1.01	26.43	0.33	99.19

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.15	9.32	0.67	n.d.	49.15	0.80	37.30	n.d.	99.44

+6.21 to +6.45 m

Sample weight 8.4 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
85-1	2.03	5.33	2.75	0.82	58.74	0.52	27.16	0.47	97.81
85-5	4.06	5.04	2.35	0.58	57.74	0.48	26.90	0.38	97.52
85-14	2.25	6.03	3.33	0.68	58.78	0.39	26.89	0.27	98.63
85-22	1.74	5.59	3.07	0.71	59.13	0.42	26.91	0.62	98.19
85-29	2.04	5.57	3.14	0.67	58.75	0.45	27.07	1.03	98.73
85-36	2.20	5.28	2.66	0.69	57.80	0.49	29.86	0.45	99.42
85-40	2.69	5.21	2.97	0.74	57.68	0.62	28.70	0.51	99.12
85-47	2.43	5.44	3.16	0.73	59.18	0.49	28.45	0.36	100.2

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
85-2	9.82	16.17	0.71	0.21	41.45	0.15	27.47	0.11	96.09
85-3	9.58	8.22	0.54	0.10	55.52	0.14	22.31	0.29	96.71
85-4	9.98	9.27	0.41	0.14	54.62	0.10	22.08	0.10	96.70
85-6	9.16	8.85	0.28	0.04	55.60	0.17	23.08	0.06	97.24
85-7	8.62	24.00	0.74	0.17	35.68	0.14	26.80	0.09	96.24
85-8	15.78	39.58	0.56	0.13	20.30	0.10	21.52	0.07	98.03
85-9	9.03	7.95	0.31	0.11	58.49	0.13	21.16	0.09	97.28
85-10	10.15	10.18	0.27	0.06	55.05	0.16	22.42	0.08	98.38
85-11	15.87	41.77	0.50	0.10	20.44	0.11	19.90	0.12	98.81
85-12	9.89	16.12	0.09	0.20	53.16	0.20	19.23	0.19	99.07
85-13	9.20	11.90	0.54	0.10	50.68	0.12	24.76	0.04	97.35
85-15	10.06	9.31	0.42	0.13	54.30	0.13	22.69	0.07	97.10
85-16	6.93	6.66	0.23	0.08	62.06	0.11	20.00	0.32	96.39
85-17	9.88	6.29	0.21	0.11	57.07	0.29	22.87	0.14	96.85
85-18	7.70	16.16	1.28	0.33	23.51	0.23	47.79	0.07	97.06
85-19	5.96	15.61	0.21	0.16	45.86	0.20	28.44	0.13	96.58
85-20	7.58	9.50	0.68	0.10	49.84	0.16	29.21	0.09	97.15
85-21	9.48	6.96	0.32	0.08	61.34	0.10	17.57	0.44	96.29
85-23	9.78	10.35	0.42	0.07	54.41	0.11	22.26	0.08	97.47
85-24	8.87	7.26	0.37	0.07	60.50	0.09	18.91	0.10	96.17
85-25	8.52	9.71	0.42	0.06	55.24	0.11	22.53	0.11	96.69
85-26	5.13	7.45	0.61	0.09	53.11	0.22	30.68	0.23	97.53
85-27	10.70	23.27	0.66	0.22	37.31	0.13	23.41	0.08	95.77
85-28	10.46	23.11	0.11	0.16	43.19	0.15	20.49	0.27	97.95
85-30	14.72	39.56	0.53	0.15	20.42	0.13	21.34	0.03	96.88
85-31	7.22	8.32	0.57	0.28	51.29	0.10	27.72	0.07	95.57
85-32	7.55	12.74	0.95	0.20	45.12	0.11	26.22	0.17	93.05
85-33	10.10	16.54	0.98	0.23	37.15	0.21	32.63	0.06	97.89
85-34	8.88	14.33	0.71	0.08	45.94	0.12	26.16	0.09	96.31
85-35	8.54	10.35	0.80	0.14	51.00	0.11	26.51	0.12	97.56
85-37	11.66	23.78	0.65	0.20	36.48	0.13	24.63	0.06	97.58
85-38	7.44	7.83	0.43	0.10	55.85	0.12	26.21	0.10	98.08
85-39	6.98	8.67	0.67	0.10	53.63	0.12	26.90	0.11	97.18
85-41	9.73	5.15	0.21	0.06	62.55	0.14	20.49	0.11	98.44
85-42	10.36	15.89	0.73	0.18	43.41	0.16	26.08	0.00	96.81
85-43	8.26	10.35	0.80	0.13	48.51	0.12	27.16	0.06	95.40
85-44	9.52	5.36	0.25	0.06	59.82	0.16	21.93	0.50	97.61
85-45	8.78	5.32	0.27	0.01	59.29	0.18	24.07	0.13	98.05

85-46	8.39	10.98	0.72	0.11	49.34	0.07	27.08	0.06	96.75
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+6.06 to +6.21 m

Sample weight 9.9 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
86-5	2.66	5.84	2.50	0.85	58.42	0.62	26.40	0.53	97.82
86-8	2.93	5.44	3.36	0.63	58.69	0.47	28.14	0.26	99.92
86-10	3.76	5.44	2.95	0.72	56.80	0.28	23.24	0.89	94.08
86-21	2.51	5.43	3.09	0.70	58.29	0.50	27.46	0.33	98.31
86-23	2.22	5.63	3.14	0.66	58.31	0.60	27.55	0.33	98.45
86-25	3.76	6.13	2.39	0.76	57.62	0.93	26.89	0.71	99.19
86-26	3.72	5.35	3.10	0.70	57.48	0.42	28.93	0.24	99.92
86-27	2.80	5.55	3.04	0.73	57.41	0.61	29.00	0.36	99.51
86-31	5.41	5.73	2.71	0.71	56.60	0.36	25.09	0.37	96.98
86-33	4.35	5.68	3.22	0.69	57.96	0.44	24.46	0.48	97.27
86-34	1.21	5.32	1.79	0.54	55.17	0.43	29.76	0.94	95.16
86-36	2.33	5.43	2.98	0.57	56.13	0.49	28.39	0.30	96.61
86-40	2.96	4.99	2.35	0.63	58.35	0.20	22.80	0.29	92.56
86-41	2.30	5.61	3.27	0.75	58.88	0.48	25.48	0.45	97.23
86-45	2.55	6.11	2.38	0.69	58.75	0.50	27.54	0.54	99.06
86-46	3.13	5.60	1.72	0.68	58.44	0.19	23.32	0.75	93.83
86-49	2.07	5.69	3.18	0.70	59.75	0.51	24.73	0.59	97.20

OtC-V grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
86-18	4.79	5.51	0.43	0.78	62.36	0.61	24.35	0.17	99.00

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
86-1	5.60	9.20	0.26	0.20	56.30	0.11	25.42	0.12	97.22
86-3	5.92	11.62	0.07	0.19	53.70	0.18	24.20	0.20	96.08
86-4	8.37	17.55	0.21	0.17	47.04	0.11	22.04	0.10	95.60
86-6	3.78	8.78	0.94	0.23	41.98	0.21	40.50	0.15	96.57
86-7	6.90	13.76	0.62	0.25	50.09	0.08	23.73	0.12	95.55
86-9	5.35	13.82	0.28	0.19	49.53	0.29	27.86	0.17	97.49
86-11	9.10	16.65	0.28	0.10	46.25	0.15	23.69	0.06	96.27
86-12	6.39	17.12	0.76	0.25	34.80	0.20	36.28	0.11	95.91
86-13	7.71	24.43	0.30	0.19	35.80	0.13	27.27	0.13	95.95
86-14	8.92	24.75	0.23	0.19	37.26	0.09	24.34	0.19	95.97
86-15	7.35	13.86	0.43	0.15	47.65	0.15	25.62	0.09	95.29
86-16	4.33	11.07	0.21	0.17	47.60	0.20	32.32	0.15	96.04
86-17	9.74	11.57	0.23	0.10	54.02	0.20	23.04	0.07	98.96
86-19	11.63	13.20	0.24	0.13	52.84	0.09	18.74	0.05	96.90
86-20	7.51	17.65	0.29	0.13	44.64	0.17	25.45	0.10	95.93
86-22	3.35	4.78	0.34	0.06	26.25	0.32	62.09	0.11	97.30
86-24	7.79	17.07	0.07	0.27	49.52	0.16	21.10	0.28	96.26
86-29	10.80	18.11	0.25	0.07	46.94	0.14	20.89	0.13	97.31

86-30	10.22	27.36	0.49	0.27	28.74	0.12	28.17	0.13	95.50
86-32	6.59	16.73	1.11	0.40	31.64	0.18	40.65	0.08	97.38
86-35	6.81	8.65	0.49	0.14	54.28	0.12	23.86	0.04	94.39
86-37	7.44	17.02	0.12	0.25	48.76	0.18	22.44	0.21	96.42
86-38	4.31	5.53	0.35	0.07	57.71	0.22	27.11	0.10	95.38
86-39	9.36	17.48	0.47	0.09	46.54	0.10	21.42	0.00	95.46
86-42	6.90	9.85	0.59	0.15	52.29	0.12	25.57	0.03	95.49
86-43	10.95	25.34	0.73	0.24	27.09	0.18	33.00	0.12	97.65
86-44	6.54	15.45	0.35	0.20	47.74	0.08	24.39	0.42	95.17
86-47	5.16	14.06	0.08	0.35	45.12	0.40	30.36	0.77	96.29
86-48	6.96	16.55	0.31	0.27	45.93	0.14	25.39	0.05	95.61
86-50	6.54	11.61	0.24	0.17	51.57	0.15	25.62	0.11	96.00
86-51	3.94	11.54	0.22	0.12	45.31	0.17	33.74	0.21	95.25
86-2	7.35	14.12	2.08	0.54	28.68	0.24	43.96	0.10	97.07
86-28	6.77	10.74	2.14	0.66	29.95	0.21	47.39	0.12	97.97

+5.90 to +6.06 m

Sample weight 8.6 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
87-7	2.60	5.44	3.51	0.66	60.17	0.42	24.73	0.35	97.88
87-8	2.86	5.70	3.10	0.69	59.24	0.61	27.35	0.54	100.1
87-13	2.15	4.94	3.93	0.79	57.22	0.47	31.14	0.39	101.0
87-14	3.01	5.86	2.84	0.71	57.48	0.63	27.99	0.45	98.96
87-15	2.77	5.58	3.29	0.71	60.07	0.45	25.53	0.33	98.73
87-18	2.65	5.46	3.15	0.66	58.55	0.60	27.04	0.48	98.58
87-22	3.03	8.18	1.99	0.61	56.52	0.46	24.25	0.09	95.13
87-23	2.38	5.57	3.17	0.74	60.31	0.50	25.99	0.41	99.07
87-26	3.14	5.67	2.64	0.72	60.19	0.78	27.07	0.56	100.8
87-31	2.36	5.49	3.30	0.73	58.46	0.59	29.43	0.32	100.7
87-40	1.86	5.64	3.15	0.46	61.99	0.35	24.17	0.22	97.84
87-44	2.13	5.90	3.29	0.68	60.98	0.40	21.31	1.04	95.72
87-55	2.56	4.95	2.31	0.59	57.89	0.44	30.42	0.19	99.34

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
87-1	10.41	12.01	0.35	0.10	54.00	0.06	21.67	0.05	98.66
87-2	9.54	13.26	0.13	0.19	58.75	0.14	15.10	1.03	98.13
87-3	9.75	20.98	0.12	0.25	44.07	0.14	23.26	0.15	98.72
87-4	19.74	14.59	0.22	0.14	40.96	0.36	21.28	0.09	97.39
87-5	6.50	7.81	0.18	0.05	60.39	0.29	22.52	0.67	98.42
87-6	8.72	16.15	0.54	0.21	47.09	0.07	23.45	0.08	96.30
87-9	3.88	17.97	0.16	0.17	40.21	0.10	34.46	0.14	97.09
87-10	3.56	4.93	0.16	0.20	36.28	0.42	52.68	0.16	98.39
87-11	6.02	10.06	0.25	0.11	55.60	0.14	24.41	0.08	96.67
87-12	4.57	9.95	0.18	0.16	50.11	0.27	32.44	0.30	97.98
87-16	6.45	8.49	0.12	0.12	61.27	0.19	20.32	0.21	97.17
87-17	8.29	19.54	1.11	0.13	43.37	0.11	23.42	0.08	96.04
87-19	3.42	4.71	3.19	0.31	18.95	0.29	62.86	0.08	93.81
87-20	9.02	14.53	0.11	0.15	51.73	0.18	22.60	0.20	98.53

87-21	5.93	7.94	0.29	0.06	56.47	0.12	26.09	0.31	97.19
87-24	8.02	18.38	0.93	0.32	32.29	0.22	37.89	0.12	98.17
87-25	9.60	20.03	0.54	0.22	42.57	0.09	23.61	0.08	96.74
87-27	4.41	10.26	0.72	0.26	47.43	0.17	33.70	0.11	97.06
87-28	7.41	11.53	0.42	0.14	53.49	0.12	23.22	0.15	96.49
87-29	7.86	16.85	0.19	0.21	47.16	0.22	25.89	0.18	98.56
87-30	7.51	7.36	0.38	0.10	61.49	0.06	17.19	1.11	95.19
87-32	7.98	21.40	0.60	0.31	36.37	0.15	29.08	0.14	96.02
87-33	7.12	9.01	0.99	0.18	48.76	0.17	30.45	0.06	96.74
87-34	2.96	21.52	0.84	0.32	34.87	0.17	34.08	0.14	94.89
87-35	4.74	8.87	0.07	0.23	62.96	0.23	17.13	1.45	95.67
87-36	12.58	18.64	0.13	0.09	52.20	0.03	13.53	0.03	97.23
87-37	6.07	10.36	0.11	0.15	57.43	0.15	22.50	0.17	96.94
87-38	7.16	10.74	0.90	0.21	53.53	0.13	25.51	0.19	98.38
87-39	7.00	20.13	0.07	0.27	48.69	0.11	19.90	0.17	96.36
87-41	5.60	12.76	0.07	0.17	52.60	0.20	25.39	0.23	97.01
87-42	8.51	14.13	0.76	0.21	43.79	0.13	28.43	0.14	96.08
87-43	4.98	15.06	1.50	0.35	29.14	0.29	46.15	0.13	97.58
87-45	4.97	13.63	0.43	0.09	49.96	0.23	26.75	0.17	96.22
87-46	6.45	9.22	0.09	0.14	56.36	0.26	26.52	0.21	99.25
87-47	7.41	15.50	0.12	0.08	53.23	0.11	18.46	0.18	95.09
87-48	5.20	12.43	0.22	0.24	55.28	0.09	21.59	0.51	95.55
87-49	10.58	29.53	0.56	0.22	37.25	0.07	18.74	0.13	97.08
87-50	10.34	13.81	0.15	0.14	55.05	0.19	18.65	0.53	98.84
87-51	8.33	17.42	0.58	0.21	42.79	0.13	27.31	0.11	96.89
87-52	10.32	12.16	3.35	0.18	39.02	0.19	33.81	0.07	99.11
87-53	8.45	13.85	0.27	0.18	51.72	0.12	22.25	0.07	96.92
87-54	9.00	25.21	1.75	0.27	29.92	0.19	30.89	0.14	97.38
87-56	7.76	8.01	0.30	0.14	58.10	0.14	24.04	0.11	98.60

+5.76 to +5.90 m

Sample weight 8.3 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
88-1	2.70	5.67	2.72	0.67	59.64	0.52	27.05	0.79	99.76
88-5	2.62	5.34	3.04	0.64	58.90	0.49	29.09	0.31	100.4
88-6	4.27	5.50	3.17	0.69	58.76	0.48	25.60	0.52	99.00
88-11	3.03	5.88	3.15	0.75	59.07	0.55	27.75	0.31	100.5
88-13	2.45	5.47	3.12	0.76	58.69	0.54	29.38	0.32	100.7
88-14	2.92	5.43	3.15	0.60	58.62	0.63	29.10	0.33	100.8
88-17	2.80	5.41	3.02	0.61	58.31	0.59	28.79	0.49	100.0
88-19	3.42	5.13	3.17	0.65	58.66	0.68	28.22	0.75	100.7
88-21	2.05	5.49	2.68	0.61	58.18	0.36	25.36	1.28	96.02
88-22	2.06	4.42	1.93	0.59	53.77	0.37	33.94	0.35	97.43
88-25	3.47	5.07	3.04	0.70	57.21	0.70	28.27	0.51	98.97
88-26	1.85	5.60	2.23	0.63	56.72	0.35	27.83	0.79	96.00
88-27	2.86	5.67	3.14	0.60	57.88	0.64	29.32	0.41	100.5

OtC-V grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
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88-12	5.32	10.72	0.92	0.54	56.26	0.44	25.14	0.12	99.47
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OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
88-2	12.28	27.72	0.04	0.20	40.15	0.10	17.55	0.24	98.28
88-3	9.34	11.20	0.11	0.17	58.77	0.25	19.87	0.65	100.4
88-4	8.99	26.93	0.12	0.20	36.95	0.19	23.87	0.17	97.41
88-7	7.65	11.72	0.18	0.20	53.50	0.25	26.03	0.15	99.67
88-8	7.67	17.47	0.23	0.11	46.51	0.15	24.54	0.19	96.88
88-9	6.90	9.96	0.10	0.26	60.10	0.22	17.76	0.59	95.87
88-10	9.00	13.54	0.20	0.27	53.15	0.21	23.04	0.17	99.59
88-15	7.55	19.67	2.20	0.40	31.14	0.25	37.05	0.10	98.34
88-16	5.01	13.96	0.19	0.18	47.47	0.16	30.20	0.16	97.33
88-18	7.87	15.72	0.14	0.18	51.37	0.19	21.94	0.21	97.61
88-20	10.24	19.41	0.86	0.16	34.34	0.17	32.62	0.12	97.92
88-24	10.65	21.01	0.84	0.29	32.20	0.18	33.01	0.12	98.32

+5.59 to +5.76 m

Sample weight 10.9 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
89-5	2.76	5.35	3.19	0.63	57.58	0.50	29.18	0.63	99.82
89-6	1.82	5.75	3.17	0.69	57.54	0.57	24.33	1.75	95.62
89-7	5.10	5.93	3.10	0.68	57.40	0.35	23.90	0.38	96.84
89-9	2.41	5.71	3.06	0.67	56.79	0.52	27.78	0.21	97.15
89-10	1.24	6.64	2.34	0.56	55.90	0.37	22.90	0.87	90.82
89-11	2.42	5.89	2.91	0.64	56.51	0.52	26.64	0.46	96.01
89-13	2.51	5.25	2.85	0.64	56.61	0.57	29.73	0.51	98.68
89-14	2.86	5.48	2.93	0.61	56.96	0.64	28.90	0.54	98.93
89-16	2.85	5.16	3.18	0.69	57.52	0.52	27.84	0.30	98.06
89-18	3.26	5.52	2.87	0.60	57.78	0.55	27.87	0.38	98.81
89-19	2.41	5.58	2.85	0.67	57.04	0.61	29.32	0.43	98.91
89-4	9.32	6.21	2.55	0.74	59.37	0.27	19.34	0.27	98.05

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
89-1	7.01	19.18	0.12	0.17	47.83	0.14	22.06	0.26	96.77
89-2	5.19	10.25	0.20	0.16	51.45	0.25	29.36	0.19	97.04
89-3	5.43	17.03	0.23	0.18	45.64	0.19	27.94	0.20	96.85
89-8	8.77	15.49	0.16	0.19	49.74	0.23	24.20	0.15	98.94
89-12	8.55	12.56	0.08	0.21	55.01	0.17	20.08	0.23	96.89
89-15	11.04	22.76	0.10	0.18	42.33	0.11	20.69	0.18	97.38
89-17	7.12	9.02	0.14	0.11	58.42	0.19	21.66	0.16	96.83
89-20	10.21	25.01	0.15	0.15	40.25	0.13	20.32	0.20	96.42

+5.43 to +5.59 m

Sample weight 9.9 kg.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
90-1	5.16	5.43	3.11	0.70	59.85	0.32	22.80	0.28	97.65
90-3	2.33	5.41	3.08	0.59	57.15	0.53	29.03	0.34	98.48
90-8	2.21	5.78	2.77	0.69	58.62	0.48	22.55	2.05	95.15
90-9	2.27	5.74	2.33	0.67	58.06	0.39	25.59	0.50	95.53
90-17	2.96	5.18	3.37	0.69	56.41	0.59	29.05	0.39	98.64
90-18	2.12	5.23	3.14	0.68	56.38	0.48	29.62	0.20	97.84
90-20	1.98	5.45	1.85	0.62	55.48	0.48	22.44	1.53	89.82
90-26	3.19	5.52	2.79	0.70	58.24	0.74	29.09	0.52	100.8
90-28	4.21	5.71	3.23	0.66	62.14	0.35	21.16	0.60	98.10
90-30	2.43	5.41	2.89	0.68	58.10	0.50	27.14	0.75	97.90
90-33	3.09	5.80	3.15	0.68	59.08	0.44	26.78	0.31	99.34
90-38	4.06	5.54	3.33	0.72	61.12	0.25	21.54	0.20	96.78
90-43	4.00	5.27	3.08	0.68	58.91	0.62	26.36	0.48	99.40
90-46	3.58	5.74	3.18	0.71	58.23	0.54	26.83	0.45	99.27
90-47	2.29	5.21	3.02	0.72	58.88	0.51	27.94	0.29	98.85
90-59	2.99	5.16	3.20	0.67	58.41	0.48	28.48	0.57	99.98
90-60	1.39	6.45	1.23	0.54	55.10	0.43	17.39	1.57	84.13
90-65	2.40	5.33	3.13	0.68	59.55	0.54	25.64	0.40	97.71
90-66	2.77	5.41	3.19	0.73	60.26	0.60	24.21	0.50	97.69
90-68	2.60	5.53	3.19	0.55	58.60	0.61	28.35	0.47	99.90
90-69	2.59	5.41	2.95	0.74	57.35	0.49	26.63	0.64	96.84
90-70	1.67	6.19	2.67	0.62	55.70	0.53	23.36	2.18	92.91
90-72	4.86	5.45	2.83	0.56	61.73	0.23	21.79	0.26	97.76
90-78	3.35	5.50	3.09	0.70	57.87	0.70	28.21	0.82	100.3

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
90-2	3.53	13.19	1.35	0.23	41.51	0.41	33.99	0.37	94.57
90-4	5.13	14.09	0.24	0.12	49.87	0.13	25.98	0.14	95.70
90-5	8.46	13.83	0.49	0.18	48.17	0.09	24.64	0.06	95.92
90-6	9.53	13.93	0.49	0.14	48.38	0.09	22.79	0.04	95.39
90-7	8.19	11.87	0.38	0.15	52.21	0.10	22.45	0.07	95.43
90-10	4.21	16.91	0.76	0.20	39.42	0.28	33.59	0.19	95.57
90-11	9.06	14.59	0.48	0.24	45.13	0.09	25.65	0.12	95.36
90-12	9.70	16.07	0.53	0.23	44.65	0.13	24.53	0.16	96.00
90-13	8.79	31.10	0.21	0.22	29.82	0.15	25.70	0.23	96.23
90-14	9.16	13.66	0.46	0.18	48.35	0.11	23.67	0.06	95.65
90-15	8.53	14.15	0.16	0.17	49.28	0.24	25.23	0.13	97.89
90-16	9.24	13.69	0.42	0.14	48.82	0.11	23.22	0.07	95.69
90-19	3.23	13.22	2.64	0.38	31.33	0.65	44.10	1.16	96.71
90-21	6.57	8.73	0.13	0.23	55.56	0.30	27.51	0.20	99.24
90-23	4.77	9.38	2.59	0.33	29.25	0.43	51.20	0.43	98.39
90-22	9.28	17.25	0.52	0.21	42.37	0.12	26.60	0.06	96.40
90-24	9.45	15.08	0.49	0.17	46.33	0.13	24.20	0.06	95.91
90-25	3.74	12.10	0.33	0.13	50.86	0.36	30.26	0.30	98.09
90-27	9.28	13.37	0.44	0.19	48.52	0.12	24.82	0.11	96.98
90-29	0.18	1.69	3.19	0.34	34.07	0.09	15.13	17.83	72.60
90-31	9.52	14.70	0.51	0.18	47.00	0.10	24.68	0.13	96.91
90-32	8.56	12.61	0.40	0.13	50.76	0.13	24.35	0.08	97.09

90-34	9.36	15.17	0.50	0.21	46.90	0.10	24.46	0.10	96.91
90-35	9.16	13.50	0.42	0.17	50.36	0.13	23.69	0.12	97.64
90-36	9.95	13.36	0.48	0.17	48.92	0.15	24.12	0.06	97.31
90-37	10.58	12.49	0.38	0.16	50.66	0.14	23.51	0.10	98.09
90-39	9.77	13.26	0.47	0.18	48.85	0.11	23.93	0.12	96.83
90-40	9.38	14.87	0.49	0.18	48.16	0.11	23.42	0.02	96.75
90-41	8.87	15.93	0.52	0.18	45.02	0.13	26.09	0.12	96.99
90-42	8.75	13.80	0.43	0.17	50.34	0.06	23.06	0.08	96.83
90-44	7.60	15.91	0.52	0.17	44.94	0.13	27.87	0.07	97.31
90-48	8.24	12.63	0.20	0.09	54.67	0.08	20.24	0.26	96.58
90-49	9.83	12.98	0.45	0.21	50.77	0.11	23.60	0.08	98.10
90-50	9.06	16.18	0.55	0.20	43.65	0.08	27.21	0.08	97.14
90-51	9.97	30.84	0.07	0.11	34.42	0.15	22.06	0.18	97.89
90-52	8.54	13.34	0.47	0.12	48.55	0.12	25.02	0.13	96.38
90-53	9.00	11.54	0.21	0.05	54.92	0.12	22.85	0.10	98.89
90-54	8.48	14.65	1.36	0.30	37.05	0.17	35.75	0.11	98.07
90-55	10.51	14.29	0.50	0.21	48.07	0.11	23.06	0.00	96.87
90-56	8.94	16.88	0.52	0.23	43.80	0.13	25.41	0.08	96.11
90-57	3.06	14.76	0.45	0.24	46.18	0.33	31.51	0.38	96.93
90-58	9.41	13.28	0.46	0.15	49.51	0.11	24.30	0.05	97.42
90-61	5.86	17.10	0.89	0.25	41.19	0.17	31.47	0.13	97.18
90-62	10.32	15.18	0.44	0.19	48.11	0.11	22.84	0.05	97.47
90-63	9.36	18.42	0.58	0.23	41.99	0.12	26.15	0.09	97.04
90-64	3.99	11.94	0.49	0.17	44.21	0.54	34.80	0.44	96.59
90-67	8.54	11.10	0.46	0.13	52.85	0.08	23.65	0.12	97.03
90-71	9.39	15.03	0.50	0.22	47.87	0.14	24.34	0.03	97.68
90-73	5.80	17.57	0.17	0.22	44.53	0.22	28.69	0.31	97.59
90-74	9.79	12.07	0.38	0.17	52.28	0.09	22.17	0.09	97.14
90-75	9.96	15.46	0.54	0.24	46.57	0.11	23.55	0.02	96.60
90-76	11.12	22.86	0.14	0.16	44.08	0.18	20.59	0.16	99.34
90-77	10.54	13.13	0.30	0.09	53.90	0.10	19.71	0.06	97.92
90-79	9.57	14.40	0.46	0.16	48.46	0.09	23.55	0.09	96.94
90-80	11.61	11.10	0.85	0.24	39.80	0.14	34.33	0.06	98.26
90-45	2.41	8.75	2.47	0.61	34.78	0.65	46.85	0.80	97.46

+5.26 to +5.43 m

Sample weight 11.1 kg.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
91-1	2.31	5.92	3.18	0.71	60.11	0.34	24.95	0.20	97.70
91-2	2.80	5.63	3.15	0.73	58.15	0.58	27.04	0.43	98.51
91-4	2.21	5.51	3.20	0.68	59.42	0.47	24.60	0.47	96.55
91-5	2.79	5.67	3.15	0.63	58.09	0.51	25.58	0.46	96.88
91-6	1.72	5.83	3.18	0.69	60.05	0.38	25.91	0.16	97.91
91-9	2.60	5.46	3.05	0.69	57.72	0.55	29.78	0.41	100.2
91-11	2.29	6.01	2.35	0.63	57.39	0.71	24.00	1.84	95.23
91-12	2.18	5.61	2.98	0.72	58.01	0.55	28.11	0.32	98.48
91-14	2.23	5.60	3.04	0.69	56.33	0.53	30.05	0.34	98.80
91-16	1.65	6.09	2.76	0.69	59.49	0.37	23.76	0.31	95.13
91-18	2.64	5.18	3.21	0.73	56.78	0.60	29.52	0.30	98.97
91-19	2.11	5.63	3.17	0.66	58.24	0.58	26.00	1.94	98.34
91-24	2.20	5.69	3.04	0.72	59.54	0.47	24.40	1.06	97.11

91-25	3.67	5.48	3.09	0.68	57.71	0.41	27.89	0.41	99.32
91-26	2.48	5.55	2.75	0.64	57.04	1.03	22.59	5.39	97.47
91-27	2.37	5.18	3.23	0.70	56.92	0.76	29.74	1.05	99.94
91-28	2.58	5.54	2.69	0.63	57.97	0.62	29.93	0.48	100.5
91-3	8.45	6.20	2.26	0.65	59.44	0.26	19.34	0.30	96.88

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
91-7	8.14	12.23	0.16	0.14	54.15	0.19	21.88	0.19	97.09
91-8	10.64	14.12	0.08	0.22	52.75	0.18	19.40	0.24	97.63
91-10	7.10	9.94	0.03	0.28	60.32	0.96	17.30	1.28	97.21
91-13	8.73	25.90	0.20	0.19	36.27	0.16	25.50	0.25	97.18
91-15	3.95	8.68	0.13	0.26	54.31	0.33	28.67	1.03	97.37
91-17	6.80	14.04	0.67	0.20	38.98	0.18	35.97	0.13	96.98
91-20	5.66	10.94	0.21	0.14	51.73	0.22	27.24	0.29	96.44
91-21	8.64	34.46	0.12	0.32	24.12	0.18	29.75	0.49	98.09
91-22	4.82	9.73	0.08	0.23	60.53	0.53	18.75	0.48	95.14
91-23	9.47	11.33	0.05	0.17	58.89	1.09	16.73	1.38	99.11

+5.09 to +5.26 m

Sample weight 9.9 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
92-1	2.44	5.77	2.92	0.68	57.98	0.51	25.91	0.94	97.13
92-2	2.01	5.74	3.15	0.78	59.58	0.46	25.21	0.74	97.66
92-3	2.30	5.40	3.03	0.61	57.92	0.46	28.27	0.38	98.36
92-5	3.40	5.41	3.35	0.72	58.08	0.66	28.23	0.55	100.4
92-8	2.29	6.21	3.01	0.69	59.36	0.48	24.70	0.75	97.49
92-9	2.19	5.67	3.09	0.68	58.27	0.48	27.61	0.33	98.30
92-10	1.85	5.75	2.66	0.71	57.43	0.41	27.65	0.54	97.00
92-11	2.25	5.66	3.22	0.67	58.28	0.46	28.74	0.27	99.55
92-12	3.96	5.80	3.16	0.62	59.28	0.41	24.02	0.79	98.03
92-14	2.30	5.44	3.22	0.81	58.84	0.46	27.43	0.34	98.85
92-17	2.52	5.78	2.03	0.80	60.48	0.63	26.13	0.87	99.24
92-18	2.10	5.76	3.56	0.62	57.67	0.57	26.57	0.39	97.23
92-19	2.21	5.59	2.32	0.70	57.32	0.45	24.51	0.44	93.53

OtC-V grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
92-6	5.27	13.12	0.61	0.55	55.07	0.18	23.71	0.07	98.57

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
92-4	3.87	7.43	0.19	0.18	56.00	0.21	28.19	0.24	96.31
92-7	9.57	14.24	0.37	0.15	48.63	0.09	24.27	0.15	97.47

92-13	3.59	8.60	0.30	0.07	55.26	0.16	29.09	0.19	97.25
92-15	9.05	9.58	0.12	0.08	60.45	0.14	17.18	0.26	96.87
92-16	4.97	13.02	0.06	0.21	50.54	0.20	27.15	0.32	96.48

+4.90 to +5.09 m

Sample weight 11.1 kg.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
93-2	2.81	5.37	3.13	0.61	56.91	0.69	29.00	0.60	99.13
93-3	2.10	5.59	3.25	0.72	59.20	0.41	24.89	0.30	96.47
93-4	4.90	5.35	2.70	0.69	56.80	0.42	26.34	0.50	97.69
93-5	4.33	5.30	2.74	0.78	57.62	0.57	27.08	0.80	99.21
93-6	2.23	5.59	3.22	0.66	59.52	0.49	24.57	0.51	96.80
93-7	2.01	5.46	3.13	0.82	58.82	0.56	24.64	0.36	95.79
93-8	2.29	5.40	3.36	0.62	59.79	0.54	25.59	0.61	98.19
93-9	2.97	7.87	2.91	0.58	57.99	0.38	23.69	0.52	96.90
93-10	2.04	5.50	3.04	0.60	58.64	0.48	27.58	0.44	98.31
93-11	2.68	5.60	3.18	0.70	58.45	0.56	27.21	0.70	99.08
93-12	1.82	5.93	3.32	0.74	60.22	0.42	23.44	0.50	96.38
93-13	2.02	5.59	2.93	0.63	58.21	0.47	27.36	0.61	97.82
93-14	1.89	5.61	3.03	0.71	59.81	0.66	25.05	0.86	97.62
93-15	2.01	5.61	3.07	0.67	59.02	0.78	24.52	1.20	96.88
93-16	2.50	5.45	3.20	0.68	58.56	0.48	28.91	0.51	100.3
93-17	1.82	5.03	2.46	0.65	58.06	0.44	26.17	0.63	95.26
93-18	2.79	5.63	2.98	0.72	59.24	0.26	24.12	0.62	96.36
93-21	2.55	5.56	3.30	0.66	58.95	0.51	25.37	0.64	97.53

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
93-1	9.54	14.74	0.23	0.16	50.65	0.15	22.08	0.12	97.65
93-19	6.11	9.06	0.32	0.09	52.75	0.11	27.61	0.15	96.20
93-20	8.73	17.02	0.60	0.21	42.53	0.13	26.95	0.07	96.25

+4.68 to +4.90 m

Sample weight 13.1 kg.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
94-7	3.07	5.43	3.12	0.71	58.38	0.65	29.13	0.51	101.0
94-9	1.96	4.38	2.37	0.68	61.37	0.71	27.43	0.86	99.75
94-11	2.69	5.46	3.15	0.74	58.54	0.63	29.33	0.38	100.9
94-12	2.82	5.26	3.24	0.60	58.53	0.64	28.92	0.42	100.4
94-13	3.04	5.38	3.10	0.78	58.10	0.57	28.94	0.52	100.4
94-18	3.47	5.56	3.23	0.65	59.64	0.45	25.07	0.31	98.37
94-19	2.59	5.48	3.23	0.74	58.70	0.37	27.50	0.34	98.94

94-22	3.03	5.50	3.19	0.70	59.84	0.61	24.31	0.91	98.09
94-23	2.33	5.47	3.17	0.74	58.71	0.55	27.58	0.40	98.95
94-24	2.89	5.67	2.91	0.74	58.05	0.61	29.24	0.57	100.7
94-25	2.49	5.66	3.12	0.68	57.86	0.54	28.74	0.29	99.38
94-26	2.29	6.61	2.70	0.78	58.70	0.48	26.71	0.45	98.72
94-27	2.03	5.62	3.10	0.69	59.14	0.41	27.40	0.30	98.68
94-29	2.20	5.34	2.79	0.65	57.40	0.49	31.28	0.21	100.4
94-30	2.65	5.47	3.16	0.72	57.21	0.61	29.59	0.39	99.79
94-32	3.72	5.39	3.20	0.76	59.28	0.60	28.13	0.23	101.3
94-33	1.62	5.92	3.07	0.66	60.23	0.62	26.17	1.69	99.97
94-35	2.07	5.88	3.14	0.73	60.09	0.47	25.64	0.30	98.32
94-36	2.65	5.56	2.92	0.79	60.42	0.59	25.92	0.43	99.27
94-37	2.39	5.52	3.09	0.73	58.43	0.61	29.94	0.47	101.2
94-39	2.06	5.37	2.94	0.69	57.70	0.44	29.10	0.73	99.02

OtC-V grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
94-2	4.09	11.74	1.13	0.63	57.65	0.33	23.22	0.07	98.87

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
94-3	4.18	14.32	0.46	0.25	45.25	0.28	32.39	0.25	97.39
94-4	4.54	9.50	0.84	0.17	53.82	0.23	28.27	0.28	97.64
94-5	6.47	6.69	0.33	0.05	61.30	0.15	22.59	0.12	97.68
94-6	5.65	10.55	0.18	0.07	56.04	0.09	24.34	0.16	97.08
94-8	4.42	7.55	0.80	0.31	34.24	0.23	50.57	0.07	98.19
94-10	7.21	12.08	0.21	0.05	53.15	0.14	25.21	0.08	98.14
94-14	6.74	5.87	0.08	0.10	60.19	0.19	25.41	0.45	99.03
94-15	12.24	12.40	0.21	0.07	55.57	0.05	18.00	0.10	98.63
94-16	8.90	10.51	0.13	0.08	56.09	0.13	22.62	0.23	98.68
94-17	5.84	8.67	0.24	0.07	57.58	0.09	22.31	0.36	95.15
94-20	7.97	8.96	0.11	0.14	57.41	0.60	21.31	1.11	97.62
94-21	9.92	19.40	1.01	0.17	43.45	0.12	22.00	0.10	96.17
94-28	10.47	20.66	0.30	0.13	44.97	0.10	20.46	0.10	97.17
94-31	12.71	11.47	0.13	0.07	54.25	0.34	17.90	0.18	97.04
94-34	6.69	11.84	0.19	0.15	54.24	0.22	25.51	0.23	99.07
94-38	9.72	16.28	0.04	0.28	54.74	0.16	15.65	0.56	97.42
94-40	8.76	11.01	0.22	0.20	52.51	0.12	24.48	0.09	97.39
94-1	7.07	13.67	3.27	0.49	17.24	0.27	55.02	0.07	97.09

+4.47 to +4.68 m

Sample weight 14.2 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
95-2	2.22	5.13	3.60	0.81	56.85	0.45	30.73	0.19	99.99
95-4	2.16	6.36	3.05	0.62	60.39	0.45	25.94	0.11	99.09
95-5	6.09	5.36	2.64	0.68	58.22	0.32	25.57	0.16	99.03
95-6	5.49	5.32	2.50	0.74	60.07	0.39	23.80	1.06	99.37

95-8	1.94	5.49	3.34	0.68	58.78	0.33	28.68	0.25	99.49
95-11	2.51	5.91	3.44	0.79	58.91	0.49	26.75	0.34	99.14
95-12	2.11	5.76	3.22	0.61	58.81	0.43	25.82	0.96	97.73
95-14	2.27	5.69	3.27	0.68	58.01	0.56	29.31	0.38	100.2
95-16	2.49	5.80	2.78	0.64	59.42	0.51	26.12	1.22	98.97
95-17	1.95	5.81	2.67	0.72	59.55	0.38	24.96	0.38	96.42
95-18	1.86	5.41	3.29	0.70	59.60	0.46	27.28	0.63	99.22
95-19	2.46	5.49	3.24	0.70	58.67	0.49	27.63	0.34	99.03
95-23	2.88	5.58	3.13	0.67	58.34	0.54	28.94	0.41	100.5
95-24	1.90	5.70	2.91	0.64	58.46	0.44	29.19	0.35	99.58
95-26	2.36	5.46	3.13	0.72	57.92	0.60	29.75	0.34	100.3
95-27	2.35	5.63	3.25	0.79	59.77	0.52	25.90	0.34	98.54
95-29	2.24	5.56	3.39	0.70	60.27	0.31	25.24	0.38	98.08
95-32	2.16	5.65	2.98	0.70	59.01	0.57	28.53	0.65	100.3
95-34	2.33	5.60	3.48	0.65	60.55	0.31	23.27	0.23	96.42
95-35	2.64	5.32	3.31	0.82	59.26	0.42	26.51	0.73	99.02
95-36	2.31	5.66	3.08	0.71	59.03	0.51	28.95	0.42	100.7
95-37	1.32	6.14	2.92	0.81	61.92	0.51	22.39	0.46	96.48
95-38	2.93	5.87	3.22	0.78	59.76	0.40	25.17	0.34	98.48
95-39	2.44	5.45	2.96	0.66	59.26	0.47	28.77	0.23	100.2
95-40	2.54	5.91	3.07	0.68	58.63	0.35	26.75	0.19	98.12
95-42	2.15	5.80	3.07	0.70	59.89	0.40	27.94	0.37	100.3
95-43	3.59	6.73	2.22	0.73	59.23	0.81	25.28	0.94	99.53
95-45	2.47	5.57	3.14	0.79	59.36	0.63	27.01	0.45	99.42
95-46	2.60	5.66	2.14	0.78	60.29	0.46	24.78	0.81	97.51
95-47	5.46	5.25	2.48	0.62	60.45	0.45	23.27	0.72	98.70
95-48	2.12	5.56	3.50	0.72	59.46	0.36	23.86	0.28	95.86
95-49	2.44	5.39	3.09	0.72	58.11	0.48	29.16	0.41	99.79
95-50	2.03	5.60	2.97	0.67	58.44	0.41	30.02	0.31	100.5
95-51	1.52	6.25	3.21	0.77	60.01	0.27	25.02	0.37	97.41
95-52	1.90	5.76	2.99	0.67	59.02	0.42	26.81	0.40	97.97
95-53	1.07	4.81	2.23	0.49	43.94	0.20	20.79	1.16	74.69
95-54	1.90	5.59	3.32	0.62	60.23	0.28	25.15	0.22	97.32
95-55	2.26	5.33	3.18	0.62	57.81	0.71	29.86	0.78	100.6
95-56	1.00	5.54	2.90	0.65	55.42	0.27	24.39	3.73	93.90
95-57	2.05	5.51	3.14	0.75	58.13	0.52	30.63	0.31	101.0
95-58	2.39	5.98	3.14	0.62	60.92	0.44	23.03	0.36	96.89
95-59	2.71	5.67	2.91	0.75	58.47	0.59	28.20	0.56	99.86
95-61	1.23	6.47	3.07	0.83	62.42	0.29	21.90	0.30	96.50
95-62	2.61	5.62	2.91	0.61	59.02	0.59	29.31	0.29	101.0
95-64	2.01	5.91	2.84	0.69	58.56	0.40	28.23	0.36	99.01
95-66	1.94	6.45	3.21	0.71	57.89	0.38	26.97	1.38	98.92

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
95-1	5.84	6.99	0.13	0.20	59.75	0.24	27.26	0.16	100.6
95-3	4.49	16.34	0.16	0.25	43.75	0.19	30.30	0.36	95.85
95-7	8.27	22.98	1.69	0.19	27.31	0.20	37.03	0.13	97.82
95-9	11.36	13.06	0.13	0.12	56.87	0.22	17.03	0.53	99.32
95-10	8.00	13.91	2.30	0.30	33.01	0.22	40.55	0.11	98.39
95-13	11.24	20.86	0.04	0.22	46.32	0.09	17.94	0.14	96.85
95-15	12.03	23.86	1.11	0.24	32.57	0.15	28.05	0.10	98.11
95-20	12.28	26.36	1.05	0.22	30.49	0.15	27.69	0.09	98.34
95-21	8.84	21.11	0.08	0.21	45.12	0.16	22.26	0.27	98.04
95-22	8.43	13.29	0.25	0.13	55.01	0.05	18.66	0.18	95.99
95-25	4.58	19.05	0.36	0.24	41.65	0.35	30.03	0.32	96.57

95-28	11.75	23.48	1.23	0.28	31.80	0.19	29.54	0.06	98.33
95-30	7.17	32.85	0.90	0.13	34.23	0.24	22.08	0.23	97.83
95-31	11.69	23.48	1.22	0.26	31.68	0.18	29.38	0.12	98.00
95-33	6.37	19.04	0.13	0.27	42.08	0.18	27.39	0.24	95.69
95-41	1.94	2.11	0.90	0.21	53.37	0.72	38.80	0.36	98.41
95-44	7.61	13.16	2.51	0.33	32.63	0.22	41.47	0.15	98.07
95-60	6.91	9.38	0.21	0.08	56.76	0.27	26.15	0.17	99.93
95-63	5.72	4.96	0.10	0.15	58.39	0.30	29.88	0.15	99.64
95-65	7.03	13.79	2.55	0.25	29.76	0.24	43.29	0.12	97.03

+4.16 to +4.47 m

Sample weight 12.9 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
96-1	2.28	5.48	3.12	0.77	59.73	0.46	26.25	0.43	98.52
96-2	2.92	10.16	3.32	0.64	53.64	0.11	24.81	0.30	95.90
96-7	1.75	5.73	3.32	0.71	61.55	0.34	23.89	0.23	97.50
96-8	2.51	5.40	3.17	0.81	58.18	0.54	28.45	0.47	99.52
96-9	1.61	5.62	3.21	0.68	60.94	0.27	23.87	0.24	96.44
96-12	2.00	5.95	3.20	0.74	59.75	0.51	26.11	0.40	98.66
96-13	2.69	5.82	3.26	0.65	60.79	0.37	24.66	0.36	98.60
96-21	2.57	5.64	3.18	0.72	58.56	0.62	28.51	0.39	100.2
96-22	2.28	5.59	3.18	0.63	59.87	0.46	25.80	0.28	98.08
96-26	1.74	5.44	3.12	0.78	57.79	0.41	27.55	1.01	97.84
96-30	2.11	5.80	3.20	0.74	59.82	0.47	25.63	0.82	98.58
96-31	2.05	4.96	2.88	0.56	56.69	0.45	27.11	0.41	95.10
96-33	1.68	6.18	3.09	0.63	59.25	0.41	20.36	4.02	95.62
96-38	2.24	5.41	3.21	0.69	60.41	0.44	25.72	0.39	98.50
96-47	1.59	5.34	2.76	0.72	58.25	0.34	28.53	0.27	97.81
96-48	2.27	5.50	3.17	0.75	59.66	0.40	26.81	0.57	99.13
96-60	2.37	5.85	2.87	0.87	57.59	0.64	28.99	0.73	99.91
96-71	1.49	5.81	3.22	0.73	61.38	0.39	24.43	0.28	97.74
96-75	1.78	5.90	3.18	0.70	60.72	0.41	24.08	0.35	97.12
96-80	1.92	5.05	2.86	0.65	58.23	0.43	29.88	0.32	99.34
96-81	1.77	5.16	3.41	0.76	62.21	0.50	23.65	0.79	98.25
96-88	2.57	5.42	3.21	0.71	61.71	0.24	21.08	0.64	95.67
96-89	1.67	5.03	2.79	0.51	59.09	0.32	27.60	0.16	97.18
96-91	2.73	5.09	2.48	0.68	59.78	0.33	26.44	0.22	97.77
96-93	4.30	5.56	2.61	0.66	61.33	0.32	21.19	0.52	96.48
96-95	2.63	5.69	2.94	0.64	60.17	0.39	24.59	0.35	97.41
96-103	2.76	5.42	2.94	0.63	60.10	0.31	24.29	0.31	96.77
96-109	3.88	4.24	1.72	0.56	60.85	0.20	25.25	1.06	97.93
96-110	2.16	5.39	3.18	0.73	58.53	0.31	26.10	1.21	97.61
96-115	2.83	5.28	3.10	0.70	58.41	0.48	28.35	0.37	99.55
96-119	2.16	5.64	3.16	0.67	60.46	0.46	26.26	0.21	99.04
96-120	2.47	5.62	3.15	0.66	60.46	0.50	24.12	0.84	97.83
96-121	2.70	5.22	3.13	0.72	58.52	0.68	29.10	0.79	100.9
96-124	2.54	5.63	3.30	0.82	61.00	0.42	23.68	0.85	98.25
96-132	2.32	6.17	2.86	0.79	60.39	0.55	25.14	0.62	98.86
96-133	3.29	5.42	3.02	0.67	57.89	0.70	28.52	0.57	100.1

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
96-3	4.59	2.75	0.23	0.16	49.87	0.62	39.87	0.33	98.41
96-4	5.43	3.69	1.32	0.12	39.55	0.60	47.44	0.26	98.40
96-5	4.24	2.60	0.75	0.20	40.31	0.72	50.00	0.19	99.01
96-6	4.30	1.55	2.87	0.26	29.39	0.48	58.75	0.08	97.68
96-10	5.27	3.89	1.93	0.17	32.50	0.32	53.73	0.09	97.90
96-11	4.13	1.82	1.40	0.19	33.67	0.68	56.31	0.16	98.36
96-14	4.33	4.93	1.57	0.14	44.25	0.54	42.41	0.27	98.45
96-15	3.76	1.71	3.24	0.15	27.03	0.46	61.04	0.16	97.56
96-16	5.89	4.73	1.14	0.17	42.15	0.34	44.59	0.20	99.21
96-17	1.86	3.42	0.70	0.18	33.74	0.83	57.66	0.19	98.58
96-18	5.73	3.60	1.65	0.17	41.37	0.79	44.36	0.29	97.95
96-19	1.62	1.92	0.71	0.13	36.50	0.77	57.05	0.17	98.86
96-20	3.83	4.81	0.18	0.31	48.61	0.61	38.03	0.32	96.71
96-23	1.26	1.81	0.70	0.15	32.34	0.70	60.47	0.22	97.65
96-24	1.67	2.10	0.66	0.11	35.80	0.81	57.51	0.17	98.82
96-25	5.03	2.28	1.71	0.15	37.16	0.58	51.82	0.19	98.92
96-27	5.60	2.78	2.05	0.30	39.34	0.43	47.87	0.22	98.57
96-28	1.49	1.68	0.84	0.19	25.92	0.67	66.88	0.11	97.78
96-29	3.13	2.28	0.43	0.19	27.99	0.53	62.43	0.10	97.09
96-32	5.32	2.43	1.29	0.29	38.49	0.49	50.72	0.21	99.24
96-34	2.26	1.51	0.98	0.23	20.23	0.73	70.62	0.10	96.64
96-35	4.38	2.15	1.54	0.14	30.78	0.60	57.90	0.14	97.64
96-36	3.77	5.71	1.14	0.11	40.09	0.70	47.61	0.24	99.38
96-37	5.72	4.31	2.31	0.11	32.76	0.38	52.17	0.16	97.92
96-39	1.42	2.25	0.51	0.19	45.72	0.69	47.25	0.30	98.33
96-40	3.72	2.04	0.97	0.11	26.48	0.53	63.61	0.14	97.59
96-41	3.67	2.72	0.51	0.19	39.76	0.64	50.59	0.17	98.25
96-42	1.36	1.64	1.15	0.22	22.22	0.66	70.63	0.10	97.97
96-43	2.94	2.38	0.32	0.16	37.02	0.65	55.23	0.34	99.04
96-44	5.15	2.60	1.92	0.22	33.85	0.45	53.88	0.28	98.33
96-45	5.67	2.13	0.43	0.15	41.62	0.73	47.55	0.22	98.49
96-46	1.61	2.04	0.48	0.06	37.27	0.50	56.85	0.44	99.26
96-49	3.64	1.74	2.14	0.18	28.59	0.57	60.96	0.15	97.96
96-50	1.59	2.25	0.64	0.15	34.84	0.79	58.26	0.25	98.77
96-51	4.06	3.29	1.94	0.14	31.44	0.48	56.29	0.13	97.77
96-52	3.76	2.10	0.79	0.16	33.96	0.67	57.04	0.17	98.65
96-53	5.59	2.94	1.58	0.17	40.44	0.44	47.15	0.20	98.52
96-54	4.58	2.90	0.54	0.14	34.47	0.56	54.50	0.14	97.83
96-55	3.84	1.75	0.72	0.10	37.02	0.67	54.19	0.18	98.48
96-56	4.38	6.85	0.05	0.22	55.60	0.20	30.33	0.28	97.90
96-57	5.11	2.40	2.07	0.23	33.24	0.45	55.07	0.18	98.77
96-58	1.50	4.95	0.44	0.09	49.27	0.62	39.36	0.37	96.61
96-59	4.53	5.02	1.09	0.15	29.09	0.46	56.44	0.35	97.13
96-61	4.72	2.45	1.95	0.23	33.79	0.49	54.62	0.12	98.47
96-62	3.87	1.73	0.39	0.17	32.76	0.58	58.35	0.18	98.14
96-63	3.06	1.40	1.76	0.21	26.89	0.53	63.95	0.10	98.02
96-64	4.32	3.05	1.51	0.15	36.94	0.66	52.18	0.17	99.10
96-65	3.54	2.25	1.16	0.19	36.49	0.66	54.64	0.12	99.21
96-66	4.09	2.68	0.52	0.13	45.59	0.50	44.52	0.41	98.52
96-67	5.08	2.79	1.47	0.19	38.49	0.45	49.08	0.19	97.86
96-68	2.16	6.06	0.80	0.16	33.91	1.04	54.15	0.28	98.85
96-69	9.24	28.85	0.94	0.26	25.02	0.15	30.90	0.10	95.50
96-70	5.24	3.12	1.41	0.25	40.65	0.66	46.81	0.21	98.48
96-72	4.21	3.12	2.53	0.08	27.52	0.42	59.71	0.13	97.83

96-73	3.45	1.78	1.12	0.15	25.32	0.60	63.98	0.13	96.65
96-74	3.86	2.69	0.98	0.21	37.82	1.17	51.36	0.19	98.36
96-76	5.72	3.73	1.27	0.17	40.98	0.44	45.87	0.16	98.44
96-77	2.96	1.58	0.64	0.08	29.89	0.65	61.67	0.21	97.84
96-79	5.19	4.18	1.74	0.16	41.98	0.58	44.79	0.23	98.95
96-82	4.59	3.37	1.53	0.16	45.70	0.27	41.60	0.41	97.74
96-83	3.85	1.45	2.20	0.30	22.76	0.48	66.11	0.11	97.43
96-84	1.78	7.17	1.24	0.18	47.65	0.65	37.83	0.41	96.93
96-85	4.50	3.03	1.40	0.22	37.24	0.62	51.72	0.17	99.01
96-86	2.20	0.90	0.78	0.16	13.98	0.33	74.75	0.08	93.18
96-87	5.64	3.05	1.30	0.24	40.16	0.43	47.76	0.30	99.01
96-90	5.26	2.79	2.75	0.24	35.50	0.55	51.34	0.21	98.80
96-92	5.24	3.09	1.72	0.23	37.12	0.39	50.97	0.13	99.00
96-94	3.33	1.21	1.41	0.24	18.68	0.51	71.62	0.08	97.21
96-96	5.40	2.87	1.18	0.18	42.58	0.60	46.27	0.18	99.39
96-97	5.16	2.43	3.11	0.22	31.77	0.43	55.11	0.15	98.53
96-98	4.22	2.51	2.08	0.20	31.30	0.55	56.89	0.18	98.10
96-99	4.37	2.11	0.77	0.09	36.53	0.50	53.67	0.17	98.40
96-100	5.31	6.12	0.82	0.10	40.14	0.45	45.18	0.22	98.44
96-101	3.87	2.14	0.89	0.15	33.59	0.62	57.08	0.20	98.68
96-102	4.91	2.10	2.29	0.30	35.50	0.56	52.68	0.25	98.72
96-104	4.47	2.51	0.86	0.16	34.05	0.55	55.51	0.17	98.43
96-105	4.51	2.79	0.58	0.16	39.76	0.67	49.78	0.18	98.53
96-106	3.51	2.24	1.48	0.30	40.50	0.68	49.21	0.20	98.20
96-107	4.30	2.27	1.58	0.20	31.91	0.55	57.00	0.11	98.05
96-108	4.98	2.39	1.28	0.12	38.69	0.63	50.11	0.24	98.55
96-111	5.79	4.15	0.94	0.13	45.17	0.33	41.15	0.16	97.91
96-112	3.47	1.80	1.11	0.20	29.94	0.47	60.63	0.16	97.93
96-113	4.57	2.54	0.71	0.05	39.92	0.64	49.89	0.16	98.57
96-114	5.51	2.76	1.15	0.18	38.87	0.38	49.81	0.13	98.92
96-116	4.91	4.85	1.30	0.13	42.90	0.70	43.63	0.23	98.77
96-117	6.00	3.10	2.20	0.26	39.11	0.46	47.60	0.17	99.03
96-118	5.07	2.70	1.03	0.13	39.47	0.58	49.67	0.20	98.96
96-122	1.39	1.96	0.65	0.15	36.42	0.67	57.00	0.24	98.50
96-123	5.08	2.98	1.37	0.21	37.88	0.45	50.13	0.16	98.42
96-125	3.64	1.91	1.27	0.14	33.15	0.65	57.14	0.14	98.16
96-126	3.15	5.40	1.47	0.12	45.16	0.28	41.57	0.37	97.59
96-127	4.40	3.54	1.55	0.09	45.24	0.55	42.58	0.39	98.46
96-129	5.52	3.83	1.41	0.15	40.19	0.67	46.91	0.27	99.05
96-131	2.99	6.50	0.86	0.13	44.27	0.30	42.25	0.13	97.46
96-134	5.05	2.18	2.51	0.27	34.18	0.48	54.21	0.21	99.24
96-135	3.65	2.06	3.34	0.21	21.84	0.37	65.23	0.15	97.00
96-136	4.53	2.07	1.13	0.10	36.93	0.63	52.55	0.18	98.25

+3.96 to +4.16 m

Sample weight 12.2 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
97-1	2.70	5.93	3.20	0.74	60.68	0.65	21.47	2.23	97.59
97-2	2.54	5.91	3.23	0.59	59.38	0.49	24.40	0.53	97.07
97-3	1.88	5.73	3.30	0.66	59.48	0.49	25.29	0.59	97.42
97-5	2.32	5.81	3.15	0.75	61.23	0.34	23.55	0.19	97.35

97-6	2.99	5.53	3.19	0.67	58.47	0.50	28.33	0.40	100.1
97-7	2.55	5.55	3.28	0.64	58.13	0.58	29.07	0.29	100.1
97-8	2.47	4.82	3.30	0.70	58.64	0.46	27.69	0.47	98.56
97-9	2.23	5.82	3.04	0.67	59.56	0.38	26.49	0.30	98.48
97-10	2.08	5.82	3.32	0.69	59.98	0.42	24.16	1.18	97.64
97-11	1.96	5.74	2.44	0.56	57.84	0.31	24.74	0.51	94.11
97-12	2.18	5.69	3.17	0.80	59.87	0.52	25.49	0.64	98.35
97-13	3.42	5.41	3.42	0.62	60.25	0.43	25.96	0.31	99.83
97-14	1.91	5.18	2.98	0.65	58.99	0.25	25.69	0.89	96.54
97-15	2.18	5.51	3.19	0.63	59.82	0.41	27.31	0.32	99.36
97-16	2.75	5.73	3.81	0.68	62.13	0.34	21.46	0.48	97.38
97-17	2.43	5.70	3.14	0.65	58.28	0.48	28.82	0.36	99.87
97-18	2.84	5.13	3.56	0.70	58.02	0.56	28.84	0.46	100.1
97-20	2.62	6.25	2.31	0.80	60.65	0.38	23.46	0.44	96.91
97-21	1.80	5.70	2.95	0.60	59.16	0.32	24.89	0.36	95.79
97-22	3.05	5.48	3.50	0.66	60.20	0.38	24.50	0.59	98.34
97-24	1.73	6.16	3.33	0.80	61.65	0.44	21.60	0.23	95.92

OtC-V grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
97-4	5.54	9.68	0.88	0.49	59.13	0.44	21.37	0.97	98.50

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
97-19	8.01	9.53	0.02	0.20	59.52	0.18	21.70	0.25	99.41
97-23	9.91	21.47	0.88	0.17	40.03	0.14	23.75	0.10	96.45

+3.76 to +3.96 m

Sample weight 12.2 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
98-1	2.33	5.43	3.05	0.67	58.79	0.62	26.28	0.58	97.74
98-2	2.32	5.29	2.99	0.74	58.35	0.62	27.24	1.04	98.59
98-3	2.26	5.64	3.34	0.63	59.51	0.46	24.65	0.17	96.66
98-4	2.25	5.36	3.29	0.58	57.40	0.65	30.05	0.50	100.1
98-5	2.17	5.51	2.82	0.68	57.25	0.53	28.93	0.37	98.25
98-6	3.13	4.96	2.67	0.56	58.64	0.61	27.72	0.50	98.79
98-7	2.90	5.20	3.09	0.74	57.49	0.63	28.85	0.54	99.42
98-8	2.28	5.36	3.05	0.70	58.76	0.60	28.82	0.42	100.0
98-9	1.52	5.56	1.96	0.50	55.47	0.39	27.87	0.94	94.22
98-10	1.95	5.52	3.15	0.64	58.68	0.43	28.25	0.26	98.86
98-11	2.72	4.98	3.01	0.69	58.48	0.57	28.75	0.74	99.96
98-13	3.53	4.63	2.79	0.63	60.49	1.01	25.40	2.06	100.5
98-14	1.72	5.05	2.96	0.61	58.82	0.42	26.92	1.15	97.66

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
98-12	10.66	12.15	0.14	0.08	55.29	0.12	19.41	0.17	98.01

+3.52 to +3.76 m

Sample weight 15.9 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
99-2	1.91	6.51	2.59	0.68	57.71	0.52	23.81	1.28	95.01
99-3	2.73	5.67	2.89	0.68	57.91	0.44	26.18	0.56	97.06
99-4	2.27	5.79	2.98	0.71	58.04	0.66	29.89	0.71	101.1
99-5	2.92	5.76	2.96	0.73	58.58	0.46	27.93	0.41	99.74
99-6	2.21	6.48	1.91	0.76	61.15	0.64	23.87	0.80	97.81
99-7	2.77	5.59	3.36	0.55	57.08	0.63	29.42	0.67	100.1
99-8	2.61	5.42	3.17	0.69	59.59	0.54	26.26	0.75	99.04
99-9	2.23	5.67	3.11	0.81	58.00	0.58	29.00	0.32	99.71
99-11	6.02	4.98	2.14	0.53	60.18	0.25	21.94	0.32	96.36
99-12	2.61	5.26	1.89	0.46	55.87	0.30	25.19	0.83	92.41
99-13	1.98	5.81	2.65	0.55	59.14	0.44	26.26	0.26	97.10
99-14	2.98	5.44	2.73	0.80	57.63	0.56	29.52	0.51	100.2
99-15	1.94	5.54	3.16	0.69	57.35	1.25	28.81	0.55	99.29
99-16	2.08	5.81	3.15	0.71	61.66	0.38	21.43	0.50	95.71
99-17	3.03	5.87	2.88	0.80	58.87	0.80	26.20	0.64	99.08
99-18	2.17	5.52	3.02	0.73	58.29	0.46	29.05	0.35	99.58
99-19	2.58	5.47	3.19	0.67	58.54	0.51	29.32	0.33	100.6
99-21	2.23	4.86	2.72	0.66	59.46	0.86	28.39	1.05	100.2
99-22	1.99	5.68	3.09	0.76	59.43	0.55	23.95	1.99	97.44
99-23	2.40	5.56	3.12	0.64	59.16	0.43	26.92	0.44	98.68
99-26	2.77	5.71	3.04	0.87	59.07	0.65	26.06	1.60	99.76
99-27	1.58	5.93	2.90	0.81	61.27	0.37	25.53	0.39	98.78
99-28	2.09	4.54	3.65	0.78	58.70	0.38	28.73	0.44	99.32
99-29	2.03	5.94	3.20	0.76	60.17	0.49	24.82	0.44	97.85
99-30	1.86	5.58	2.30	0.57	60.53	0.36	24.66	0.49	96.34
99-31	2.08	5.55	3.32	0.67	60.81	0.50	24.59	0.52	98.03

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
99-1	9.15	15.57	0.10	0.22	49.64	0.16	23.32	0.24	98.41
99-10	8.47	10.98	0.26	0.08	53.17	0.20	24.97	0.07	98.20
99-20	12.31	27.97	0.52	0.21	38.42	0.09	17.18	0.10	96.80
99-25	4.74	11.15	0.06	0.25	51.84	0.19	29.45	0.32	98.00
99-24	6.54	9.82	4.21	0.63	34.55	0.55	42.35	0.14	98.79

+3.27 to +3.52 m

Sample weight 13.6 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
100-1	2.00	5.94	2.51	0.74	56.65	0.40	27.44	0.83	96.50
100-2	2.57	5.30	2.78	0.73	57.25	0.45	28.98	0.37	98.44
100-3	3.33	5.55	2.98	0.73	57.77	0.60	26.84	0.41	98.20
100-5	2.94	6.50	1.94	0.62	59.69	1.36	24.32	1.25	98.62
100-8	2.67	5.84	2.62	0.75	58.45	0.88	28.55	0.64	100.4
100-9	2.39	5.27	2.99	0.71	57.73	0.58	30.58	0.24	100.5
100-13	2.19	5.39	3.21	0.64	58.51	1.48	27.10	0.88	99.39
100-14	2.57	5.58	2.99	0.66	57.87	0.54	29.24	0.45	99.91
100-16	4.74	6.14	2.40	0.67	58.49	0.61	25.93	0.28	99.26
100-17	1.94	5.78	3.04	0.71	58.65	0.38	26.85	0.47	97.83

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
100-4	11.77	22.86	0.07	0.21	45.42	0.07	14.32	0.10	94.80
100-6	11.29	20.94	0.29	0.15	43.53	0.13	21.55	0.10	97.96
100-7	7.02	10.67	0.05	0.21	55.16	0.24	25.66	0.21	99.22
100-10	7.37	10.30	0.11	0.14	54.22	0.23	26.69	0.21	99.26
100-11	8.63	21.83	0.35	0.24	37.67	0.22	29.48	0.19	98.60
100-12	11.15	24.29	0.16	0.17	42.19	0.12	19.71	0.25	98.04
100-15	13.24	22.07	0.04	0.17	46.93	0.07	14.14	0.10	96.75
100-18	1.48	8.02	4.57	0.42	47.96	0.52	33.10	0.09	96.16
100-19	7.51	10.90	0.12	0.20	55.64	0.20	23.97	0.12	98.67

+2.73 to +2.83 m (Sextummen bed)

Sample weight 12.6 kg. From Schmitz and Häggström (2006).

EC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.01	5.82	3.31	0.81	57.66	0.99	28.88	0.20*	99.68
2	2.60	6.27	3.12	0.76	56.82	0.73	28.43	0.31	99.04
3	2.59	5.88	3.20	0.81	59.73	0.63	26.07	0.49	99.40
4	2.94	6.50	2.59	0.84	57.27	1.13	28.30	0.51	100.1
5	1.92	6.05	3.14	0.88	58.55	0.71	24.77	0.30	96.32
6	2.08	6.48	3.07	0.80	57.59	0.73	27.01	0.20*	97.96
7	2.01	5.92	3.17	0.70	60.08	0.66	23.00	0.43	95.97
8	2.29	4.69	3.29	0.65	56.57	0.84	28.20	0.27	96.80
9	1.86	6.62	3.23	0.77	58.20	0.41	26.81	0.23	98.13
10	2.03	5.38	3.30	0.69	57.52	0.83	28.62	0.30	98.67
11	8.61	5.85	2.96	0.82	58.60	0.63	20.42	0.48	98.37
12	1.28	5.90	3.39	0.80	59.14	0.78	24.25	0.25	95.79
13	2.42	4.61	3.33	0.73	56.33	0.62	27.98	0.33	96.35
14	2.26	8.10	2.95	0.79	59.63	0.50	21.91	0.80	96.94
15	2.45	5.54	3.27	0.74	56.80	0.75	27.53	0.26	97.34
16	1.19	5.33	2.54	0.58	53.77	0.60	31.56	0.03*	95.60
17	1.42	4.98	2.69	0.69	56.33	0.66	27.38	0.38	94.53
18	2.96	6.62	2.42	0.71	54.43	0.76	31.28	0.26	99.44
19	2.48	5.93	3.23	0.65	56.72	0.68	26.64	0.45	96.78
20	3.55	5.61	2.98	0.74	57.20	0.87	27.31	0.31*	98.57
21	2.46	5.52	3.11	0.71	57.30	0.94	23.62	2.13	95.79

*Values lower than the detection limit (<2 sigma).

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	9.48	16.48	0.07*	0.26	51.89	0.41	23.42	0.29	102.3
2	7.11	15.12	0.07*	0.19	60.71	0.43	15.60	0.48	99.71
3	11.06	27.52	0.10*	0.11*	40.98	0.31*	17.77	0.19*	98.04
4	9.07	22.29	0.21	0.07*	44.01	0.22*	22.97	0.25*	99.09
5	8.92	12.07	0.01*	0.23	56.42	0.46	18.82	1.89	98.82

*Values lower than the detection limit (<2 sigma).

+2.58 to +2.73 m (Sextummen bed)

Weight 19.0 kg. From Schmitz and Häggström (2006).

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	1.47	4.72	2.68	0.66	56.74	0.77	29.45	0.70	97.19
2	2.04	7.08	2.65	0.67	53.50	0.69	35.32	0.30	102.3
3	1.47	5.39	2.77	0.59	55.15	0.64	32.02	0.14*	98.17
4	2.63	5.87	3.04	0.76	56.63	0.75	29.42	0.30	99.40
5	1.77	7.15	2.86	0.59	56.84	0.66	31.22	0.16*	101.3
6	1.64	8.15	2.78	0.60	55.26	0.63	29.18	0.15*	98.39
7	2.17	7.11	2.48	0.78	59.25	0.47	25.83	0.42	98.51
8	2.11	7.44	3.08	0.80	59.42	0.92	23.84	0.48	98.09
9	1.57	6.26	3.30	0.65	59.91	0.70	26.02	0.29	98.70
10	3.30	4.80	2.74	0.64	58.52	0.45	26.83	0.23	97.51
11	3.01	6.95	3.02	0.78	58.69	0.63	25.54	0.17*	98.79
12	1.76	5.85	3.30	0.76	58.96	0.51	26.47	1.02	98.63
13	2.92	7.21	3.49	0.82	61.15	0.57	19.08	0.66	95.90
14	1.07	5.28	2.86	0.60	58.11	0.64	29.58	0.13*	98.27
15	0.97	5.25	3.20	0.81	60.13	0.66	25.38	0.43	96.83
16	1.86	6.15	3.10	0.64	55.90	0.60	30.34	0.18*	98.77
17	1.50	7.22	3.43	0.64	60.86	0.56	21.15	0.27	95.63
18	2.72	4.14	2.80	0.68	56.42	0.61	29.97	0.24	97.58
19	2.78	6.42	3.10	0.85	60.47	0.68	21.46	0.16*	95.92
20	1.10	6.33	3.32	0.80	60.76	0.31	22.99	0.19*	95.80
21	4.42	8.49	2.85	0.72	57.50	0.58	25.15	0.27	99.98
22	2.87	7.30	2.98	0.79	57.61	0.57	29.66	0.29	102.1
23	1.02	4.41	2.38	0.73	56.16	0.52	30.34	0.41	95.97
24	2.28	6.69	3.15	0.72	58.60	0.59	23.59	0.24	95.86
25	1.37	6.55	3.16	0.72	60.35	0.55	21.60	0.47	94.77
26	2.11	7.20	3.30	0.77	59.75	0.58	22.25	0.70	96.66

*Values lower than the detection limit (<2 sigma).

OtC-V grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.36	10.91	2.54	0.51	56.90	0.65	24.02	0.20	98.09

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.65	11.47	0.28	0.09*	59.47	0.36	19.80	0.15*	98.27
2	6.07	9.22	0.14	0.11*	57.59	0.39	23.16	0.17*	96.85
3	10.63	13.31	0.31	0.11*	48.55	0.33	26.81	0.05*	100.1
4	12.95	25.56	0.56	0.16	39.18	0.31	20.13	0.15*	99.00
5	3.90	7.85	0.38	0.18	56.60	0.32	27.65	0.14*	97.02
6	5.06	10.21	0.21	0.21	54.35	0.32	26.28	0.05*	96.69
7	6.73	7.25	0.10*	0.17	62.18	0.21*	17.38	0.43	94.45
8	5.68	11.39	0.17	0.26	52.33	0.44	25.01	0.10*	95.38
9	6.96	7.69	0.12	0.13	58.34	0.43	23.13	0.18*	96.98
10	12.74	11.07	0.22	0.06*	58.08	0.22*	16.09	0.25	98.73
11	5.29	10.21	0.61	0.36	36.44	0.35	43.21	0.14*	96.61
12	5.57	13.83	0.33	0.23	48.15	0.43	25.42	0.13*	94.09
13	4.83	11.01	0.30	0.21	50.39	0.40	26.47	0.07*	93.68
14	7.57	9.22	0.17	0.08*	59.47	0.41	19.72	0.18*	96.82
15	7.93	12.03	0.21	0.11*	53.20	0.41	24.43	0.11*	98.43
16	3.47	9.79	0.12	0.16	55.63	0.26	24.51	0.13*	94.07
17	16.27	12.91	0.12	0.06*	56.44	0.39	16.01	0.23	102.4
18	6.78	8.71	0.36	0.10*	56.68	0.35	23.37	0.12*	96.47
19	9.03	12.62	0.18	0.10*	58.22	1.27	18.50	0.36	100.3
20	10.67	19.27	0.31	0.12*	46.28	0.37	21.85	0.10*	98.97
21	14.07	20.61	0.26	0.17	43.87	0.27	19.50	0.09*	98.84
2	5.31	9.79	1.64	0.98	31.34	0.36	47.23	0.02*	96.67
3	6.46	12.02	1.35	1.20	27.43	0.30	48.95	0.04*	97.75
4	8.83	17.88	1.02	0.60	19.17	0.24*	52.26	0.26*	100.3

*Values lower than the detection limit (<2 sigma).

+2.50 to +2.58 m (Sextummen bed)

Sample weight 10.7 kg. From Schmitz and Häggström (2006).

EC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.45	7.45	3.61	0.87	63.68	0.92	22.26	0.76	102.0
2	1.21	5.45	3.35	0.85	59.68	0.96	24.32	0.45	96.27
3	2.33	5.89	3.19	0.79	56.86	0.90	28.83	0.75	99.54
4	3.89	7.88	3.28	0.68	55.30	0.66	29.74	0.61	102.0
5	3.91	5.73	3.26	0.72	55.70	0.76	26.57	0.13*	96.78
6	2.09	7.36	3.28	0.56	57.41	0.69	27.30	0.19*	98.88
7	1.81	4.03	3.13	0.69	56.13	1.02	27.53	0.62	94.96
8	1.84	5.45	3.35	0.88	58.28	0.55	24.97	0.33*	95.65
9	1.98	5.94	3.31	0.77	58.01	0.84	24.45	0.53	95.83
10	2.41	6.52	3.50	0.79	55.22	0.82	25.99	0.44	95.69
11	1.38	4.82	2.59	0.59	55.04	0.68	30.53	0.42	96.05
12	1.94	6.05	2.68	0.78	55.75	1.15	28.06	0.81	97.22
13	4.34	6.14	2.85	0.71	56.24	0.89	25.33	0.66	97.16
14	3.42	5.19	3.17	0.72	54.49	0.71	26.21	0.40	94.31
15	1.57	5.11	3.19	0.76	55.60	0.62	26.18	0.47	93.50
16	2.65	5.81	3.08	0.79	56.98	0.92	28.21	0.94	99.38
17	3.83	6.26	2.29	0.74	56.31	0.61	25.00	0.32*	95.36
18	2.46	5.26	3.05	0.69	54.54	0.62	27.14	0.81	94.57

19	1.94	6.72	2.99	0.67	57.76	0.59	22.96	0.39	94.02
20	2.06	6.03	2.05	0.69	55.86	0.80	25.54	0.39	93.42

*Values lower than the detection limit (<2 sigma).

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	12.15	18.58	0.69	0.25	38.25	0.47	25.93	0.05*	96.37
2	3.09	11.44	0.33	0.19*	48.84	0.95	29.45	0.56	94.85

*Values lower than the detection limit (<2 sigma).

+2.29 to +2.48 m (Rödkarten bed)

Sample weight 13.0 kg.

EC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
101-1	2.27	5.61	3.05	0.77	58.10	0.99	27.75	0.82	99.35
101-2	2.72	5.37	3.00	0.72	58.20	0.64	28.80	0.73	100.2
101-5	5.11	5.34	2.95	0.64	58.39	0.36	26.43	0.22	99.43
101-6	1.97	5.91	2.58	0.74	58.05	0.68	29.69	0.48	100.1
101-7	2.65	5.51	2.99	0.70	57.44	0.20	30.17	0.22	99.87
101-9	2.31	5.35	3.12	0.65	59.36	0.48	27.27	0.31	98.84
101-10	2.66	5.53	3.00	0.72	57.08	0.64	29.78	0.41	99.82
101-11	3.48	5.31	3.10	0.68	58.01	0.58	28.06	0.41	99.63
101-12	1.98	8.71	1.93	0.64	55.52	0.32	26.00	2.10	97.20
101-13	3.63	5.36	3.01	0.73	59.02	0.49	27.25	0.43	99.92
101-14	1.46	9.42	2.68	0.68	55.61	0.46	19.21	0.54	90.05
101-15	1.83	5.46	2.71	0.70	57.62	0.38	28.17	0.51	97.37
101-16	2.21	5.37	3.01	0.69	57.35	0.82	29.45	0.85	99.75
101-18	2.14	5.54	3.19	0.66	56.69	0.58	30.43	0.37	99.59
101-20	2.73	5.33	3.32	0.64	57.38	0.77	29.26	0.65	100.1
101-21	2.84	5.56	3.18	0.71	57.21	0.58	29.48	0.44	100.0
101-23	2.10	5.90	3.00	0.78	60.57	0.43	23.55	0.60	96.94
101-24	2.41	5.97	2.39	0.72	57.68	0.64	29.05	0.32	99.19
101-25	2.22	5.28	3.13	0.63	55.69	0.50	29.21	0.29	96.94
101-26	2.52	5.58	3.09	0.68	57.47	0.54	29.73	0.31	99.93
101-28	3.77	5.55	3.00	0.75	57.82	0.51	28.57	0.36	100.3
101-29	3.22	5.47	2.38	0.56	58.24	0.41	28.31	0.35	98.94
101-30	2.54	5.69	3.14	0.73	58.49	0.51	28.89	0.34	100.3

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
101-3	6.43	10.09	0.21	0.17	47.02	0.31	33.68	0.18	98.10
101-4	11.67	9.09	0.08	0.06	60.41	0.10	16.47	0.14	98.01
101-8	4.13	12.96	0.29	0.24	46.08	0.22	32.31	0.26	96.48
101-17	8.92	15.42	0.19	0.09	45.78	0.12	25.79	0.18	96.50
101-19	7.97	15.59	0.18	0.13	46.71	0.17	25.70	0.11	96.55
101-22	8.24	9.40	0.10	0.12	55.21	0.22	25.50	0.24	99.02
101-27	7.95	15.83	0.17	0.15	47.08	0.17	25.67	0.17	97.19

+2.15 to +2.29 m (Rödkarten bed)

Sample weight 11.8 kg.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
102-1	1.97	6.14	2.18	0.59	57.81	0.48	25.46	0.48	95.10
102-2	2.01	5.81	3.11	0.80	60.26	0.55	24.04	1.37	97.95
102-3	2.09	5.35	2.88	0.68	56.49	0.45	30.82	0.22	98.99
102-5	2.54	5.87	3.02	0.71	56.99	0.65	29.48	0.37	99.64
102-6	2.55	5.45	2.99	0.68	57.23	0.43	29.66	0.32	99.31
102-7	2.49	6.19	1.96	0.64	60.62	0.80	22.28	2.94	97.92
102-8	1.90	5.58	3.06	0.82	58.49	0.53	27.54	0.41	98.33
102-9	2.08	6.06	3.11	0.81	58.47	0.42	27.05	0.35	98.35
102-10	2.32	5.91	3.00	0.78	59.61	0.58	23.76	1.31	97.27
102-11	5.38	4.92	3.32	0.82	59.19	0.41	25.48	0.38	99.89
102-12	1.87	5.78	3.00	0.76	58.48	0.34	26.63	0.32	97.17
102-13	2.74	5.46	2.97	0.68	58.21	0.54	28.55	0.37	99.53
102-14	3.20	5.11	2.93	0.64	56.70	0.58	28.39	0.45	97.99
102-16	2.54	5.75	3.19	0.67	57.94	0.51	27.17	0.44	98.20
102-17	4.13	5.52	2.86	0.65	57.80	0.47	27.25	0.28	98.95
102-18	2.17	5.44	2.95	0.60	57.71	0.52	29.69	0.22	99.31
102-19	2.02	5.42	3.10	0.68	57.42	0.43	29.14	0.25	98.45
102-20	2.45	5.31	3.08	0.68	56.70	0.54	30.51	0.24	99.50
102-21	2.68	5.66	3.05	0.76	57.22	0.60	29.80	0.35	100.1
102-22	1.65	5.63	3.06	0.77	58.90	0.42	25.07	0.44	95.93
102-24	2.24	5.74	3.26	0.72	60.10	0.46	25.00	0.26	97.77
102-25	2.11	5.61	3.00	0.78	58.24	0.51	27.47	0.41	98.13
102-26	1.70	5.52	3.13	0.69	59.32	0.48	22.83	0.38	94.06
102-27	2.49	5.53	3.28	0.69	58.45	0.52	29.53	0.27	100.8

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
102-15	10.17	13.74	0.21	0.09	53.45	0.15	20.35	0.16	98.31
102-4	1.38	10.17	1.25	2.94	28.71	1.03	46.64	2.78	94.90

+0.87 to +1.05 m (Botten bed)

Sample weight 24.6 kg. From Schmitz and Häggström (2006).

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.13	5.22	2.90	0.59	55.84	0.60	31.63	0.20	99.11
2	2.43	6.54	3.00	0.77	56.83	0.74	30.97	0.23	101.5
3	2.14	4.85	3.32	0.65	57.24	0.81	29.69	0.19*	98.89
4	3.09	6.50	3.09	0.79	55.22	0.69	29.39	0.27	99.04
5	2.33	6.78	3.26	0.64	57.71	0.69	30.23	0.19*	101.8
6	2.49	7.27	2.83	0.75	54.65	0.84	28.59	0.40	97.82

7	3.39	6.09	3.18	0.70	55.70	0.81	28.53	0.36	98.76
8	2.09	5.86	3.25	0.75	55.51	0.85	29.90	0.33	98.54
9	2.19	5.78	2.94	0.73	56.58	0.90	28.83	0.27	98.22
10	2.42	6.15	3.09	0.60	55.87	0.87	29.86	0.33	99.19
11	2.72	5.87	3.13	0.72	55.89	0.92	30.38	0.40	100.0
12	2.52	4.73	2.78	0.68	57.40	0.93	29.55	0.38	98.97
13	1.88	5.19	3.02	0.75	56.66	0.69	29.80	0.32	98.31
14	2.46	5.47	3.42	0.74	57.44	0.79	30.93	0.39	101.6
15	2.25	5.86	3.16	0.79	56.83	0.66	30.82	0.27	100.6
16	3.23	5.77	3.01	0.69	57.05	0.77	28.36	0.35	99.23
17	2.84	5.80	3.35	0.73	58.05	0.76	30.80	0.43	102.8
18	2.78	6.55	3.21	0.76	57.10	0.77	31.01	0.23	102.4
19	2.62	5.90	3.22	0.80	56.80	0.88	30.14	0.41	100.8
20	2.42	6.21	3.09	0.83	55.93	0.70	31.35	0.22	100.8
21	2.26	5.93	3.23	0.74	54.57	0.86	30.32	0.30	98.21
22	2.93	6.18	3.15	0.77	55.77	0.85	29.66	0.37	99.68
23	2.60	5.84	3.26	0.81	56.96	0.75	30.30	0.31	100.8

*Values lower than the detection limit (<2 sigma).

OtC-V grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	7.28	6.85	0.02*	0.48	61.85	0.50	22.27	0.23	99.48
2	3.35	17.14	1.42	0.72	48.39	0.79	28.68	0.03*	100.5

*Values lower than the detection limit (<2 sigma).

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	9.35	12.75	0.07*	0.40	55.00	0.43	21.25	0.15*	99.40
2	10.37	15.81	0.42	0.22	42.00	0.34	29.47	0.13*	98.76
3	10.51	13.80	0.00*	0.21	50.24	0.53	24.80	0.23	100.3
4	11.10	13.46	0.01*	0.26	57.05	0.37	17.80	0.19	100.2
5	5.22	5.34	0.09*	0.27	56.42	0.66	29.64	0.33	97.97
6	10.74	7.32	0.06*	0.30	60.99	0.44	18.05	0.08*	97.98
7	7.83	13.66	0.05*	0.25	48.27	0.58	27.15	0.19	97.98
8	12.09	21.47	0.32	0.17	41.91	0.36	23.14	0.20	99.66
9	6.00	11.26	1.36	0.26	28.31	0.56	47.84	0.15*	95.74
10	9.00	8.19	0.28	0.08*	50.87	0.56	27.90	0.18*	97.06
11	6.32	6.05	0.07*	0.17	58.07	0.41	28.75	0.27	100.1
12	9.27	10.02	0.00*	0.26	61.07	0.21*	19.36	0.25	100.4
13	8.60	13.21	1.86	0.29	21.62	0.27	52.24	0.26	98.35
14	10.48	19.75	0.25	0.07*	45.54	0.44	24.36	0.17*	101.1
15	10.67	14.56	0.10*	0.23	43.54	0.28	27.90	0.18*	97.46
16	6.25	7.03	0.16	0.18	58.79	0.51	25.18	0.16*	98.26
17	11.55	23.60	0.04*	0.25	43.21	0.25	21.04	0.24	100.2
18	7.94	12.62	0.68	0.17	37.90	0.33	38.65	0.04*	98.33
19	9.97	8.53	0.04*	0.24	61.90	0.45	20.25	0.16*	101.5
20	9.12	12.70	0.00*	0.36	55.27	0.46	21.49	0.16*	99.56
21	10.78	15.69	0.03*	0.20	55.77	0.26	19.09	0.14*	102.0
22	10.63	17.08	0.16	0.26	51.02	0.39	19.50	0.27	99.31
23	9.36	8.49	0.11	0.23	58.57	0.41	21.22	0.13*	98.52
24	10.85	18.06	0.48	0.26	40.74	0.43	27.95	0.20	98.97
25	9.29	9.84	0.01*	0.26	58.04	0.36	22.65	0.16*	100.6
26	12.13	25.54	0.29	0.21	41.84	0.45	20.74	0.31	101.5
27	2.95	3.81	0.94	0.44	39.59	0.80	49.69	0.04*	98.26
28	11.35	17.57	0.63	0.29	36.83	0.37	33.73	0.08*	100.9

29	11.95	16.18	0.19	0.05*	48.41	0.41	21.48	0.12*	98.79
30	11.39	27.14	0.25	0.18	36.61	0.49	23.57	0.20	99.83
31	11.01	13.70	0.10*	0.17	51.51	0.47	22.42	0.18*	99.56
32	9.68	15.38	0.32	0.10*	45.49	0.57	26.83	0.15*	98.52

*Values lower than the detection limit (<2 sigma).

+0.77 to +0.87 m (Golvsten bed)

Sample weight 13.3 kg. From Schmitz and Häggström (2006).

EC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.57	6.22	3.19	0.68	57.54	0.87	29.39	0.26	100.7
2	2.04	5.79	3.05	0.72	58.35	0.85	28.84	0.41	100.1
3	2.39	5.84	2.98	0.68	54.51	0.92	30.56	0.24	98.12
4	3.62	4.77	3.24	0.79	58.47	0.82	27.26	0.45	99.42
5	3.61	5.88	3.33	0.67	56.55	0.91	27.19	0.36	98.50
6	2.21	6.45	2.43	0.77	58.44	0.79	26.91	0.29	98.29
7	2.93	5.72	3.11	0.63	56.03	0.89	30.04	0.14	99.49
8	2.43	6.79	2.97	0.73	56.61	0.84	29.57	0.42	100.4
9	2.04	5.99	3.09	0.80	56.74	0.66	29.21	0.29	98.82
10	2.01	4.75	2.80	0.73	55.48	0.94	29.51	0.35	96.57
11	3.08	6.52	3.44	0.79	57.06	0.86	29.88	0.30	101.9
12	2.15	5.70	3.17	0.74	55.48	0.88	30.49	0.32	98.93
13	1.65	3.94	2.12	0.87	60.99	0.86	27.05	0.82	98.30
14	2.75	6.37	2.51	0.72	58.67	0.96	27.21	0.42	99.61
15	2.83	5.42	3.50	0.79	58.48	1.00	29.65	0.77	102.4
16	2.38	5.62	3.37	0.80	57.22	0.81	29.03	0.31	99.54
17	3.28	5.34	3.27	0.70	58.50	0.65	26.90	0.43	99.07
18	2.39	5.79	3.17	0.71	58.24	0.89	28.65	0.28	100.1
19	3.59	6.00	2.07	0.75	57.60	0.81	27.10	0.43	98.35
20	2.64	6.17	3.11	0.69	57.22	0.81	28.67	0.25	99.56
21	2.55	6.36	3.13	0.74	56.94	0.74	30.43	0.26	101.2
22	2.18	6.11	3.31	0.72	57.54	0.78	28.83	0.45	99.92
23	3.25	5.31	3.30	0.74	57.71	0.88	28.41	0.29	99.89
24	2.73	5.31	3.42	0.69	57.45	0.89	28.82	0.33	99.64
25	2.81	6.29	3.28	0.79	58.21	0.94	28.09	0.43	100.8
26	2.12	5.46	3.33	0.76	58.79	0.77	29.13	0.43	100.8
27	2.43	6.41	3.37	0.76	59.46	0.88	25.70	0.39	99.40
28	2.86	6.04	2.72	0.80	56.14	0.85	28.56	0.29	98.26

OtC-V grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
2	6.41	4.24	0.71	0.46	60.36	0.32	25.29	0.22	98.01

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	15.64	28.22	0.35	0.17	36.70	0.31	17.01	0.02*	98.42
2	12.30	22.62	0.96	0.21	42.40	0.43	21.52	0.03*	100.5
1	9.14	19.83	1.09	0.51	23.11	0.33	45.85	0.12*	99.98

*Values lower than the detection limit (<2 sigma).

+0.62 to +0.77 m (Golvsten bed)

Sample weight 17.7 kg. From Schmitz and Häggström (2006).

EC grains > 63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.71	5.40	3.45	0.67	56.70	0.81	27.98	0.36	98.08
2	2.14	6.48	3.11	0.76	56.62	0.86	29.15	0.37	99.49
3	2.80	5.48	3.33	0.73	56.61	0.93	29.31	0.35	99.54
4	3.00	5.50	3.25	0.71	57.04	1.11	28.21	0.45	99.27
5	3.15	8.02	1.90	0.83	62.14	1.51	21.40	2.58	101.5
6	3.04	6.77	2.15	0.96	59.17	1.65	25.03	1.17	99.94
7	2.01	5.53	3.06	0.74	59.17	1.16	25.01	0.97	97.65
8	2.41	5.25	2.91	0.83	57.16	0.79	29.99	0.42	99.76
9	2.35	6.82	2.80	0.87	57.26	1.14	28.52	0.47	100.2
10	2.62	5.17	3.32	0.79	58.35	1.12	28.02	0.53	99.92
11	2.26	5.36	2.99	0.64	56.11	0.85	28.39	0.53	97.13
12	1.72	5.93	2.96	0.79	56.14	0.56	29.38	0.14*	97.62
13	3.10	5.76	3.21	0.83	56.84	0.66	28.78	0.21	99.39
14	1.88	6.80	2.71	0.77	59.29	0.87	25.20	1.97	99.49
15	3.04	6.10	3.23	0.74	57.11	0.99	29.30	0.50	101.0
16	2.28	5.01	3.05	0.78	57.16	0.69	29.06	0.26	98.29
17	1.53	5.63	3.41	0.74	60.08	0.46	25.33	0.95	98.13
18	3.41	5.32	3.21	0.71	57.42	0.91	27.78	0.25	99.01
19	3.69	6.27	3.36	0.76	58.55	0.61	27.38	0.84	101.5
20	2.85	5.47	3.33	0.68	56.05	0.79	29.82	0.28	99.27
21	2.54	6.63	2.00	0.89	60.83	0.64	25.26	0.68	99.47
22	2.02	6.66	2.96	0.87	59.57	0.82	22.71	2.22	97.83
23	2.86	5.70	2.57	0.98	57.84	1.33	25.13	1.35	97.76
24	2.30	5.78	3.29	0.74	58.04	0.81	28.35	0.41	99.72
25	2.81	6.05	2.28	0.89	59.17	1.85	22.86	1.41	97.32
26	2.79	5.88	3.28	0.70	57.32	0.90	28.07	0.22	99.16
27	3.01	7.99	2.64	0.74	57.79	0.95	23.79	1.11	98.02
28	3.66	6.77	3.02	0.62	56.52	0.70	28.13	0.32	99.74
29	2.49	5.53	2.96	0.83	57.15	1.53	28.16	0.60	99.25
30	1.78	6.04	3.22	0.85	59.53	0.49	24.94	0.38	97.23

*Values lower than the detection limit (<2 sigma).

OtC grains > 63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	14.90	31.13	0.10*	0.21	37.65	0.31	15.24	0.26	99.80

*Values lower than the detection limit (<2 sigma).

+0.32 to +0.56 m (Arkeologen bed)

Sample weight 24.0 kg. From Schmitz and Häggström (2006).

EC grains > 63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
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1	1.99	6.93	3.40	0.67	58.13	0.42	28.74	0.17*	100.5
2	3.83	6.47	3.21	0.54	57.04	0.60	27.19	0.28	99.16
3	2.34	7.16	3.25	0.83	59.29	0.83	24.84	0.34	98.88
4	3.33	5.91	3.31	0.74	56.81	1.07	28.45	0.46	100.1
5	2.53	6.28	3.30	0.68	56.58	0.55	30.37	0.25	100.5
6	2.62	6.74	3.23	0.76	58.61	0.77	26.99	0.38	100.1
7	2.28	5.54	2.65	0.79	56.22	0.61	28.83	0.35	97.27
8	3.04	6.39	3.20	0.80	55.65	0.76	28.06	0.38	98.28
9	2.30	7.54	3.46	0.78	59.14	0.47	24.82	1.17	99.68
10	2.47	6.17	2.60	0.74	55.20	0.86	28.77	0.40	97.21
11	2.96	6.93	3.35	0.80	58.43	0.72	25.36	0.50	99.05
12	3.60	9.15	2.49	0.80	57.02	0.54	27.44	0.28	101.3
13	4.30	7.40	3.29	0.64	58.99	0.44	23.12	0.42	98.60
14	1.98	6.16	3.20	0.79	57.34	0.48	26.97	0.31	97.23
15	3.30	6.49	3.35	0.80	56.83	0.87	28.75	0.48	100.9
16	2.18	7.26	3.22	0.79	60.73	0.95	20.94	3.18	99.25
17	2.81	6.17	3.30	0.74	58.29	0.65	28.05	0.61	100.6
18	2.33	6.07	2.87	0.79	57.37	0.79	28.67	0.45	99.34
19	1.93	5.28	3.03	0.80	56.21	0.63	29.64	0.19*	97.71
20	3.44	6.03	3.24	0.67	57.09	0.89	28.71	0.59	100.7
21	1.25	4.44	2.49	0.93	58.50	1.03	20.15	2.02	90.81
22	2.44	5.72	2.93	0.69	55.42	0.74	28.70	0.31	96.95
23	2.15	5.91	3.66	0.77	61.83	0.27*	19.53	0.57	94.69
24	2.76	5.45	3.29	0.67	56.29	0.89	28.69	0.44	98.48
25	3.47	5.62	3.28	0.79	57.60	0.74	28.10	0.56	100.2
26	2.82	5.62	3.22	0.83	57.01	1.13	28.38	0.49	99.50
27	2.72	5.92	3.47	0.80	58.84	0.83	22.84	1.09	96.51
28	2.52	6.03	3.10	0.69	58.83	0.72	26.52	0.73	99.14
29	3.42	6.20	3.19	0.75	55.35	0.82	29.66	0.22*	99.61
30	3.20	5.94	3.06	0.73	56.81	1.01	28.36	0.44	99.55
31	4.15	6.91	2.97	0.83	58.08	0.89	26.10	0.47	100.4
32	3.60	6.08	3.24	0.69	56.72	0.96	28.57	0.48	100.3
33	3.04	5.95	3.30	0.68	57.22	0.78	28.62	0.29	99.88
34	2.59	6.86	3.29	0.76	56.59	0.97	29.88	0.72	101.7
35	2.04	5.86	3.12	0.79	56.78	0.74	28.50	0.52	98.35
36	2.94	6.06	2.99	0.81	56.46	1.19	28.00	0.63	99.08
37	2.86	6.48	3.08	0.80	56.87	0.71	27.89	0.34	99.03
38	1.90	5.80	2.89	0.82	61.17	0.63	20.15	0.58	93.94
39	2.17	5.42	2.41	0.77	57.79	0.99	27.70	0.43	97.68
40	3.22	6.55	3.03	0.73	56.12	0.82	29.15	0.33	99.95
41	2.64	5.92	2.89	0.78	55.79	0.76	27.24	0.42	96.44

*Values lower than the detection limit (<2 sigma).

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	9.43	8.26	0.14	0.12*	56.51	0.39	24.51	0.11*	99.47
2	9.13	10.82	0.07*	0.07*	53.75	0.25*	24.95	0.11*	99.15
3	13.68	42.84	0.00*	0.38	26.57	0.07*	15.52	0.32*	99.38

*Values lower than the detection limit (<2 sigma).

+0.08 to +0.32 m (Arkeologen bed)

Sample weight 26.0 kg. From Schmitz and Häggström (2006).

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	4.14	6.03	3.14	0.66	56.26	0.70	26.35	0.21	97.49
2	1.55	5.48	3.62	0.79	58.27	0.51	24.97	0.40	95.59
3	3.49	6.49	2.22	0.74	57.16	0.91	26.47	0.43	97.91
4	5.84	6.57	2.40	0.73	56.75	0.54	23.12	0.74	96.69
5	2.83	6.26	3.26	0.73	56.44	0.71	29.48	0.46	100.2
6	2.89	5.50	3.21	0.74	57.77	0.76	28.19	0.82	99.88
7	2.49	5.53	3.18	0.69	57.18	0.88	28.09	0.16*	98.20
8	3.61	5.89	3.26	0.76	56.86	0.66	27.99	0.27	99.30
9	2.87	5.81	2.95	0.84	56.88	1.02	28.43	0.21*	99.01
10	2.08	6.53	2.51	0.83	60.12	1.13	19.10	4.07	96.37
11	2.34	5.98	3.36	0.75	57.68	0.56	28.35	0.39	99.41
12	2.37	5.28	2.79	0.62	56.71	0.97	28.17	0.55	97.46
13	2.55	6.59	2.87	0.84	59.58	0.78	26.67	0.38	100.3
14	1.97	5.68	3.25	0.79	59.07	0.61	26.24	0.34	97.95
15	3.04	5.98	3.17	0.79	57.97	0.69	28.39	0.44	100.5
16	2.22	4.62	3.07	0.79	57.43	0.92	27.99	0.49	97.53
17	2.67	5.83	3.50	0.67	57.78	0.74	29.82	0.42	101.4
18	2.90	6.27	3.43	0.69	58.25	1.05	27.42	0.40	100.4
19	1.84	5.30	3.08	0.86	58.85	0.92	29.06	0.31	100.2
20	2.82	5.44	3.22	0.68	58.05	0.59	27.49	0.48	98.77
21	3.01	4.94	2.88	0.93	57.96	0.99	26.63	0.68	98.02
22	3.19	5.55	3.56	0.71	57.12	0.77	28.40	0.46	99.76
23	1.66	6.66	3.06	0.74	59.75	0.59	22.90	0.34	95.70
24	1.94	6.72	3.42	0.72	58.79	0.72	25.31	0.29	97.91
25	2.28	7.44	2.14	0.85	58.19	1.13	22.89	4.06	98.98
26	3.98	6.17	3.56	0.71	57.32	0.75	28.40	0.46	101.4
27	2.39	6.78	3.14	0.83	59.35	0.83	25.40	0.47	99.19
28	2.58	5.50	3.04	0.64	56.82	0.62	29.38	0.30	98.88
29	2.05	5.78	3.13	0.78	56.81	0.86	28.80	0.34	98.55
30	2.43	5.90	3.22	0.64	58.31	0.68	28.64	0.30	100.1
31	2.07	5.54	3.52	0.69	59.08	0.76	24.99	0.53	97.18
32	3.68	5.99	3.32	0.81	58.72	0.85	26.33	0.40	100.1
33	2.65	6.18	3.00	0.71	56.97	0.61	28.58	0.58	99.28
34	4.18	6.59	3.26	0.71	57.43	0.85	27.05	0.59	100.7
35	2.53	6.02	3.24	0.75	56.73	0.70	27.73	0.29	97.99
36	3.61	5.72	3.21	0.77	56.61	0.84	27.25	0.34	98.35
37	2.81	5.59	3.47	0.65	56.86	0.81	29.08	0.30	99.57
38	2.74	4.97	3.75	0.79	58.14	1.02	28.34	1.17	100.9
39	2.48	6.48	3.14	0.79	57.76	0.75	28.13	0.52	100.1
40	3.55	6.57	3.07	0.66	60.01	0.60	23.45	0.67	98.58
41	3.09	6.85	3.08	0.64	57.63	1.08	23.71	2.77	98.85
42	2.65	5.26	3.38	0.72	58.42	0.65	28.45	0.52	100.1
43	1.28	6.76	2.45	0.63	53.17	0.47	34.17	0.54	99.47
44	2.12	6.45	3.20	0.71	59.60	0.54	25.07	0.40	98.09
45	3.10	6.04	3.27	0.70	56.56	0.98	28.63	0.53	99.81
46	2.59	5.48	3.36	0.69	57.36	0.67	28.53	0.33	99.01
47	3.36	6.40	2.94	0.64	56.60	0.87	28.81	0.47	100.1
48	2.11	7.35	3.26	0.79	60.74	0.67	21.95	0.92	97.79
49	3.24	5.66	3.31	0.72	56.61	1.11	27.82	0.51	98.98
50	2.17	6.26	3.32	0.80	58.15	0.62	27.07	0.46	98.85
51	2.27	6.29	3.24	0.78	58.68	0.80	27.35	0.37	99.78
52	3.27	5.18	3.41	0.69	57.44	0.97	27.23	0.95	99.14
53	2.32	5.27	3.17	0.81	58.18	0.93	29.16	0.38	100.2
54	3.11	6.07	3.32	0.81	57.73	0.79	29.29	0.41	101.5

55	2.17	5.28	3.45	0.75	57.85	0.79	27.53	0.65	98.47
56	2.08	5.77	3.20	0.81	58.88	0.84	27.84	0.60	100.0
57	2.89	6.36	3.18	0.69	56.80	0.66	29.09	0.72	100.4
58	2.05	6.48	2.99	0.72	57.41	0.67	28.31	0.32	98.95
59	2.62	6.53	2.57	0.92	57.41	1.13	28.40	0.61	100.2
60	1.52	7.20	3.15	0.77	57.27	0.51	25.87	0.89	97.18
61	2.63	6.11	3.27	0.72	57.60	0.79	28.49	0.49	100.1
62	1.78	6.83	3.04	0.96	60.07	0.77	25.63	0.35	99.43
63	2.81	6.91	3.13	0.79	60.51	0.68	23.87	1.31	100.0
64	2.86	6.26	3.24	0.72	57.96	0.80	28.09	1.11	101.0
65	1.40	6.49	3.75	0.74	59.69	0.44	25.19	0.42	98.12
66	2.68	5.73	3.38	0.74	57.79	0.87	29.11	0.68	101.0
67	2.49	7.49	3.22	0.70	58.28	0.61	26.56	0.56	99.91
68	3.18	5.99	2.96	0.74	57.58	0.84	28.24	0.46	99.99
69	2.10	6.00	3.27	0.81	57.04	0.93	30.56	0.36	101.1
70	4.31	6.00	3.05	0.71	58.29	0.65	27.23	0.56	100.8
71	2.68	6.26	3.05	0.77	57.11	0.80	28.38	1.10	100.2
72	2.17	5.85	3.86	0.86	60.27	0.77	26.42	0.21	100.4
73	2.84	5.76	3.26	0.74	57.59	0.77	28.44	0.71	100.1
74	2.80	5.93	3.18	0.82	57.35	0.90	28.30	0.51	99.79
75	1.79	6.36	3.66	0.81	60.15	0.63	24.70	0.50	98.60
76	2.64	6.14	3.20	0.73	58.78	0.67	27.35	0.26	99.77
77	2.81	6.93	3.25	0.83	59.98	0.92	21.82	1.21	97.75
78	2.54	6.28	3.17	0.72	58.46	0.59	25.25	0.56	97.57
79	3.16	7.01	3.50	0.74	60.32	0.57	24.31	0.29	99.90

*Values lower than the detection limit (<2 sigma).

OtC-V grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	5.92	16.69	1.00	0.56	42.49	0.44	29.22	0.16*	96.48

*Values lower than the detection limit (<2 sigma).

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	9.27	17.76	0.18	0.12	44.97	0.39	23.35	0.20	96.24
2	13.10	32.28	0.22*	0.09*	31.54	0.15*	20.33	0.31*	98.02
3	9.95	16.44	0.36	0.22	46.11	0.35	23.96	0.25	97.64
4	10.37	24.53	0.41	0.23	35.72	0.45	25.18	0.14*	97.03
5	12.96	20.70	0.30	0.20	48.13	0.23*	16.90	0.19*	99.61
6	8.68	16.47	0.90	0.13	43.69	0.23	28.14	0.14*	98.38
7	8.09	14.98	0.33	0.24	47.51	0.45	25.83	0.21	97.64
8	9.81	24.84	0.48	0.16	35.17	0.41	27.20	0.20	98.27
9	9.92	22.29	0.46	0.34	36.97	0.23	27.57	0.19*	97.97
10	12.13	22.86	1.10	0.30	34.37	0.33	29.41	0.14*	100.6
11	9.70	23.08	0.41	0.17	41.63	0.24	22.02	0.18*	97.43
12	14.70	35.32	0.23	0.21	24.49	0.18*	24.85	0.14*	100.1
13	11.56	15.55	1.40	0.28	48.19	0.32	21.42	0.16*	98.88
14	9.46	20.08	0.56	0.21	41.51	0.25	25.07	0.04*	97.18
15	11.85	16.31	0.09	0.09*	50.27	0.30*	22.72	0.33	102.0
16	9.38	14.73	0.40	0.21	45.15	0.26	27.08	0.22	97.43
17	10.90	17.66	0.38	0.16	45.23	0.41	25.08	0.18*	100.0
18	9.76	26.04	0.69	0.40	19.79	0.39	39.99	0.00*	97.06
19	9.38	21.39	0.30	0.14	38.08	0.31	23.82	0.15*	93.57
20	15.10	35.50	0.27	0.23	29.79	0.39	24.34	0.11*	105.7

21	15.21	20.89	0.44	0.14	47.13	0.15*	17.93	0.11*	102.0
22	9.02	19.03	0.53	0.20	43.53	0.42	27.77	0.23	100.7
23	11.07	21.51	0.48	0.13	37.30	0.32	28.45	0.26	99.52
24	10.39	20.79	1.61	0.21	38.96	0.23*	26.13	0.23	98.55
25	10.74	23.93	0.32	0.20	40.22	0.32	26.50	0.16*	102.4
26	12.13	24.24	1.01	0.31	38.36	0.32	23.49	0.31	100.2
27	11.06	21.57	0.36	0.31	36.62	0.33	29.35	0.25	99.85
28	11.43	24.24	0.61	0.19	47.68	0.25	21.45	0.21	106.1
29	6.98	16.18	0.28	0.25	32.04	0.57	43.57	0.23	100.1
30	9.79	20.27	0.62	0.26	39.65	0.41	27.60	0.10*	98.70
31	12.11	28.79	0.49	0.21	38.00	0.33	22.24	0.11*	102.3
32	11.36	16.66	0.40	0.17	48.24	0.44	23.11	0.15*	100.5
33	11.68	23.55	0.13	0.12	41.91	0.33	21.62	0.27	99.61
34	8.84	18.63	0.60	0.23	41.23	0.31	26.65	0.29	96.78
35	9.78	15.95	0.21	0.21	51.60	0.44	22.16	0.30	100.7
36	10.44	13.28	0.39	0.17	48.24	0.36	25.94	0.16*	98.98
37	7.52	15.47	0.47	0.11	43.50	0.52	28.76	0.25	96.60
38	9.27	17.11	0.55	0.18	50.09	0.23	19.90	0.03*	97.36
39	10.42	11.92	0.35	0.07*	50.65	0.37	23.39	0.16*	97.33
40	9.40	18.08	0.35	0.20	42.59	0.39	27.90	0.10*	99.01
41	14.83	38.38	0.29	0.21	21.23	0.27	25.88	0.26	101.4
42	6.99	14.13	0.43	0.18	43.84	0.31	31.11	0.23	97.22
43	10.32	14.82	0.46	0.12	49.64	0.39	23.10	0.05*	98.90
44	9.96	15.66	0.48	0.17	48.24	0.52	25.95	0.12*	101.1
45	10.49	18.61	0.63	0.24	43.78	0.26	24.22	0.17*	98.40
46	10.24	22.08	0.86	0.40	29.31	0.40	37.99	0.15*	101.4
47	11.56	16.66	0.20	0.10*	47.86	0.24	25.68	0.34	102.6
48	10.84	14.00	0.29	0.08*	47.94	0.24	27.03	0.08*	100.5
2	9.01	17.40	2.07	0.54	32.50	0.48	35.79	0.17*	97.96
3	8.12	17.83	2.17	0.67	22.66	0.37	49.20	0.18*	101.2

*Values lower than the detection limit (<2 sigma).

-0.54 to -0.82 m

Sample weight 4.3 kg.

EC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.84	5.90	3.20	0.73	58.80	0.74	27.81	0.45	100.5
2	2.31	5.69	3.31	0.66	59.13	0.81	28.08	0.49	100.5
3	2.58	6.12	1.92	0.78	59.96	0.89	26.46	1.50	100.2

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	14.68	30.55	0.52	n.d.	32.66	n.d.	21.96	n.d.	100.4
2	7.36	10.44	n.d.	n.d.	53.44	0.60	28.80	n.d.	100.6

EC grains 32-63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.62	6.27	3.06	0.73	58.87	0.79	27.44	0.64	100.4

2	2.42	6.37	2.93	0.80	57.84	2.51	26.65	0.94	100.5
3	2.78	6.11	3.09	0.65	58.52	1.01	27.79	0.74	100.7
4	2.49	6.30	3.21	0.69	57.73	0.95	27.84	0.37	99.58
5	3.03	6.14	3.18	0.70	58.49	1.05	25.88	2.15	100.6
6	2.51	6.71	1.76	0.76	60.41	1.14	25.84	0.80	99.92
7	2.36	6.02	3.20	0.79	58.57	0.88	27.76	0.74	100.3
8	2.43	5.89	3.07	0.72	58.34	0.88	28.46	0.56	100.4
9	2.57	6.13	2.96	0.71	58.22	0.77	28.68	0.53	100.6
10	3.24	5.85	3.30	0.68	58.39	0.81	26.84	0.76	99.89
11	2.82	7.05	2.57	0.81	57.25	1.12	26.63	0.60	98.85
12	2.53	6.40	3.04	0.74	58.88	0.93	27.09	0.52	100.1
13	2.58	6.04	3.03	0.82	59.94	1.00	27.50	0.37	101.3
14	2.63	5.97	3.20	0.71	59.70	0.88	27.52	0.70	101.3
15	3.00	6.96	2.50	0.83	59.32	1.30	25.95	1.60	101.5
16	2.48	6.01	3.08	0.73	58.97	0.74	27.21	0.31	99.53
17	2.91	6.08	2.89	0.83	59.18	0.94	27.64	0.70	101.2
18	2.67	5.95	2.90	0.64	59.26	1.00	27.37	0.48	100.3
19	2.94	5.89	3.06	0.59	59.14	0.48	27.42	0.37	99.89
20	2.79	6.16	2.80	0.73	57.25	0.77	26.98	0.98	98.46
21	2.30	6.05	1.90	0.79	61.81	1.15	23.46	2.03	99.48
22	2.44	5.76	2.23	0.73	61.66	0.88	18.35	6.96	99.02
23	2.48	6.83	3.14	0.82	61.81	0.84	22.63	1.13	99.69
24	1.81	6.08	3.26	0.76	60.42	0.91	26.04	0.49	99.78
25	2.23	6.41	2.80	0.78	58.12	0.88	29.24	0.32	100.8
26	2.77	6.48	3.15	0.62	58.43	0.87	28.46	0.45	101.2
27	2.59	5.98	3.05	0.73	58.59	0.73	27.73	0.99	100.4
28	2.49	5.92	3.34	0.68	58.44	0.72	28.56	0.84	101.0
29	2.72	6.06	3.11	0.69	58.41	0.86	27.69	0.96	100.5
30	2.21	5.79	2.84	0.80	59.11	1.01	28.18	0.67	100.6
31	2.36	6.43	2.69	0.77	57.06	1.04	26.39	2.35	99.09
32	2.56	6.12	2.94	0.68	59.10	0.80	28.33	0.94	101.5
33	2.38	6.71	2.45	0.81	58.97	0.93	28.15	0.84	101.3
34	2.84	6.26	3.20	0.72	59.43	0.87	27.31	0.69	101.3
35	2.93	6.22	3.06	0.75	58.93	0.94	27.58	0.79	101.2
36	2.65	6.30	2.41	0.79	59.59	1.34	26.89	1.22	101.2
37	2.50	6.00	3.25	0.78	57.87	1.28	27.87	1.30	100.9
38	2.32	6.65	2.54	0.84	58.38	0.93	28.25	0.82	100.7
39	2.68	5.69	2.95	0.76	58.35	1.04	27.12	1.06	99.66
40	3.61	6.05	3.22	0.78	58.99	0.81	27.26	0.39	101.1

OtC-V grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	7.37	15.34	0.56	1.02	49.51	0.56	25.71	n.d.	100.1
2	11.74	21.80	1.42	0.64	43.64	n.d.	21.28	n.d.	100.5
3	12.78	22.40	1.29	0.56	42.86	0.44	20.60	n.d.	100.9
4	10.07	16.29	0.80	1.05	50.71	n.d.	21.14	n.d.	100.1
5	6.14	15.10	0.84	0.96	48.97	0.60	27.44	n.d.	100.1
6	7.74	19.57	1.41	0.65	44.42	n.d.	26.86	n.d.	100.7
7	9.33	15.86	1.38	0.53	50.25	n.d.	21.67	n.d.	99.02

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	22.47	11.58	n.d.	n.d.	46.13	0.99	17.84	n.d.	99.00
2	10.56	20.81	1.02	n.d.	44.56	n.d.	22.32	n.d.	99.28

3	11.68	30.02	0.66	n.d.	30.88	n.d.	26.46	n.d.	99.68
4	10.84	24.02	0.40	n.d.	40.14	n.d.	23.37	n.d.	98.77
5	4.09	9.37	1.85	n.d.	16.11	n.d.	63.36	n.d.	94.78
6	9.24	10.41	n.d.	n.d.	56.28	n.d.	23.11	n.d.	99.03
7	11.95	21.73	0.60	n.d.	41.71	0.40	23.83	n.d.	100.2
8	7.34	17.13	3.11	0.33	39.21	n.d.	31.28	n.d.	98.40
9	12.48	29.75	0.67	n.d.	32.61	0.36	24.07	n.d.	99.94
10	15.21	29.61	0.53	n.d.	32.94	n.d.	21.95	n.d.	100.2
11	15.01	30.35	0.57	n.d.	30.93	n.d.	22.97	n.d.	99.83
12	14.72	28.71	0.64	n.d.	32.26	n.d.	23.86	n.d.	100.2
13	13.73	28.79	0.53	n.d.	35.29	n.d.	21.82	n.d.	100.2
14	6.92	20.52	0.47	n.d.	39.85	0.43	30.15	n.d.	98.34
15	12.21	23.78	0.87	0.27	34.18	n.d.	29.39	n.d.	100.7
16	11.06	28.32	0.71	n.d.	31.56	n.d.	28.42	n.d.	100.1
17	14.50	29.13	0.65	n.d.	32.38	n.d.	22.90	n.d.	99.56
18	4.53	8.15	1.33	n.d.	23.25	n.d.	59.20	n.d.	96.46
19	14.63	26.68	0.51	n.d.	36.44	n.d.	22.03	n.d.	100.3
20	4.70	11.88	0.69	n.d.	49.25	n.d.	30.93	n.d.	97.46
21	10.43	22.76	2.34	0.44	39.42	n.d.	25.03	n.d.	100.4
22	6.60	10.39	1.46	0.33	50.49	0.47	29.52	0.30	99.56
23	15.70	31.99	0.48	n.d.	31.95	n.d.	20.38	n.d.	100.5
24	12.22	29.05	0.60	0.26	31.69	n.d.	26.22	n.d.	100.1
25	14.22	28.63	0.66	n.d.	33.25	n.d.	23.21	n.d.	99.97
26	14.85	29.77	0.62	n.d.	32.40	n.d.	22.37	n.d.	100.0
27	4.66	13.89	0.75	n.d.	47.68	n.d.	32.98	0.56	100.5
28	14.39	27.48	0.57	0.26	33.41	n.d.	23.89	n.d.	100.0
29	6.62	12.09	0.54	0.43	46.14	0.91	34.57	0.49	101.8
30	10.75	22.02	0.96	0.41	46.26	n.d.	19.42	n.d.	99.81
31	7.03	17.73	1.57	0.35	27.27	0.26	44.79	n.d.	98.99
32	14.10	29.17	0.60	0.22	32.32	n.d.	23.53	n.d.	99.96
33	15.85	33.65	0.44	n.d.	29.15	n.d.	21.02	n.d.	100.1
34	10.95	23.15	0.72	0.40	39.40	n.d.	25.20	n.d.	99.83
35	12.88	26.22	0.83	0.31	32.05	n.d.	26.98	n.d.	99.28
36	3.84	5.77	n.d.	n.d.	36.56	n.d.	52.80	n.d.	98.98
37	13.81	27.23	0.65	n.d.	32.80	n.d.	24.13	n.d.	98.63
38	14.28	29.66	0.63	n.d.	33.18	n.d.	22.66	n.d.	100.4
39	12.08	27.40	0.69	n.d.	32.64	n.d.	27.23	n.d.	100.0
40	7.87	21.70	1.99	0.77	23.37	n.d.	43.65	n.d.	99.36
41	9.37	16.20	3.07	0.66	26.86	0.36	42.33	n.d.	98.85
42	7.19	12.73	4.90	0.64	27.38	0.32	45.83	n.d.	98.98

-0.77 to -0.82 m

Weight 22.8 kg. From Haggström and Schmitz (2007). Only searched for grains in >63 µm fraction.

EC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	1.77	6.60	2.40	0.82	59.71	1.35	20.57	5.50	98.72
2	2.00	7.08	3.28	0.85	65.39	n.d.	20.88	n.d.	99.49
3	2.46	6.21	3.24	0.78	57.34	0.92	27.00	0.80	98.75
4	2.22	6.45	3.15	0.73	59.54	n.d.	27.53	n.d.	99.62
5	2.03	6.47	2.91	0.72	59.85	n.d.	27.00	n.d.	98.98
6	2.24	6.12	2.20	0.78	55.98	0.96	24.99	1.03	94.30

OtC grain >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	9.53	15.41	1.16	n.d.	36.10	n.d.	38.10	n.d.	100.3

-0.82 to -0.97 m

Weight 25.4 kg. From Schmitz and Häggström (2006). Only searched for grains in >63 μm fraction.

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	10.46	11.98	0.18	n.d.	56.38	0.54	20.91	n.d.	100.6

-0.82 to -1.05 m

Sample weight 62 kg.

It was very difficult to recover all chrome-spinel grains from the residue in the 32-63 μm fraction of this sample, hence only a minimum estimate of the number of grains could be acquired. We estimate that >80% of the chrome-spinel grains in the residue have been recovered.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.91	5.67	3.28	0.80	60.30	0.60	26.81	n.d.	100.4
2	2.32	5.62	3.47	0.70	58.28	1.07	27.51	0.69	99.67
3	3.03	5.98	3.34	0.83	60.52	0.79	25.50	0.48	100.5
4	3.02	5.50	3.14	0.68	57.91	1.08	27.65	0.58	99.56
5	2.42	5.88	2.35	0.69	59.78	0.71	27.51	0.57	99.92
7	2.54	5.59	3.11	0.70	58.62	0.94	27.77	n.d.	99.27
9	4.13	6.23	1.36	0.70	61.35	1.30	23.18	1.44	99.68
10	2.88	5.50	3.25	0.67	59.22	0.81	27.73	0.42	100.5
12	2.65	6.12	3.33	0.80	61.31	0.70	24.50	1.36	100.8
14	2.84	6.13	1.97	0.72	61.72	1.00	24.65	1.20	100.2
16	3.01	5.43	3.37	0.68	58.47	0.86	27.86	0.35	100.0
18	2.70	5.51	3.14	0.74	58.90	0.99	27.56	0.67	100.2
19	2.55	5.96	2.40	0.80	61.46	0.98	24.71	0.93	99.79
22	2.01	6.06	2.48	0.83	63.09	0.89	24.12	1.58	101.1
23	2.23	6.05	2.56	0.78	62.79	0.87	24.41	1.06	100.8
24	2.17	5.92	2.20	0.88	61.56	0.75	25.42	0.66	99.46

OtC-V grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
17	3.68	5.80	0.86	0.51	63.35	0.99	24.80	0.54	100.5

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
6	7.93	16.58	0.68	0.21	41.28	0.41	33.19	n.d.	100.3
8	3.03	11.60	0.94	0.27	50.93	1.26	30.91	0.60	99.55
11	13.60	27.54	0.32	n.d.	46.67	n.d.	11.98	n.d.	100.1
13	10.71	12.68	n.d.	n.d.	54.27	n.d.	21.81	n.d.	99.46
15	10.96	12.45	0.20	n.d.	54.60	n.d.	21.62	n.d.	99.83
20	3.34	6.42	0.21	n.d.	61.63	0.62	28.86	n.d.	101.1
21	11.05	14.67	0.37	n.d.	54.34	n.d.	19.99	n.d.	100.4

EC grains 32-63 μ m (plus 49 EC grains only semi-quantitatively analysed in unpolished state, results not included here)

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
7	1.66	6.03	1.60	0.91	67.97	0.92	20.45	1.10	100.6
8	2.75	5.77	3.22	0.66	60.07	0.86	27.06	0.46	100.9
10	1.82	5.47	3.43	0.77	59.10	0.75	27.56	1.40	100.3
11	3.48	5.58	3.19	0.75	58.68	0.71	27.43	0.60	100.4
15	1.96	6.24	3.59	0.75	64.59	0.82	21.96	0.78	100.7
19	2.17	6.33	3.18	0.81	60.12	1.05	25.96	0.79	100.4
21	2.50	5.67	3.08	0.68	58.78	0.96	27.80	0.93	100.4
22	2.07	6.23	2.97	0.82	62.24	0.66	24.26	0.91	100.2
23	2.52	5.98	3.34	0.75	61.10	0.84	25.05	1.13	100.7
25	2.86	5.05	3.32	0.72	58.75	1.11	25.86	2.56	100.2
26	2.25	5.15	3.15	0.76	59.92	0.85	27.57	0.54	100.2
27	2.75	7.55	1.90	0.82	62.51	1.05	22.72	0.98	100.3
29	2.17	6.12	2.45	0.79	62.91	0.79	24.75	0.92	100.9
30	2.87	5.61	3.18	0.67	59.04	1.05	27.52	0.95	100.9
31	2.32	5.99	2.84	0.70	58.52	1.09	27.99	1.16	100.6
34	2.59	5.75	3.05	0.69	58.93	0.82	28.40	0.89	101.1
36	2.47	5.68	3.20	0.70	58.95	0.96	27.68	1.35	101.0
37	2.61	5.66	2.96	0.68	58.79	0.97	27.59	1.18	100.4
38	2.55	6.32	1.61	0.79	63.64	1.07	19.46	4.80	100.3
39	8.78	4.83	1.35	0.66	64.00	0.68	20.33	0.54	101.2
41	2.02	6.29	3.04	0.85	62.89	0.73	24.11	0.97	100.9
44	1.94	6.63	3.81	0.76	65.98	0.86	20.32	0.63	100.9
47	2.85	6.41	2.85	0.85	63.04	1.78	21.23	1.99	101.0
48	2.16	6.85	2.70	0.86	64.13	1.23	21.31	1.12	100.4
50	2.52	6.46	2.30	0.88	67.58	0.78	19.40	0.76	100.7
51	2.37	5.82	1.94	0.80	61.13	1.13	25.63	1.59	100.4
52	2.51	5.85	3.23	0.74	60.29	0.82	26.76	0.61	100.8
5	2.70	6.16	2.01	0.86	63.18	1.03	22.76	1.64	100.3
6	2.83	5.73	3.16	0.69	58.17	1.24	27.01	1.16	99.98
8	2.24	5.74	2.14	0.84	58.94	1.13	26.52	1.65	99.21
9	1.75	5.99	3.32	0.80	61.48	0.76	25.09	0.46	99.65
15	2.28	5.84	3.34	0.68	60.43	0.94	25.73	0.53	99.77
19	1.86	6.04	2.33	0.77	62.30	1.08	25.04	0.82	100.2
24a	2.46	5.51	3.14	0.70	58.85	0.93	28.40	0.53	100.5
25	2.42	5.77	3.17	0.71	59.93	0.76	27.55	0.57	100.9
28	2.21	6.18	3.54	0.70	64.72	0.88	20.86	1.52	100.6
30	2.81	6.06	3.36	0.81	60.63	0.9	25.21	0.89	100.7
32	3.54	5.72	3.37	0.72	58.97	0.71	27.82	0.41	101.3
34	2.51	6.00	3.01	0.70	59.45	0.93	27.56	0.60	100.8
37	2.05	5.80	3.12	0.74	59.23	0.84	28.62	0.44	100.9
38	4.12	4.61	2.74	0.72	61.64	1.71	22.56	2.85	101.0
41	2.16	5.32	2.57	0.80	60.82	2.52	22.60	2.93	99.73

42	2.41	5.92	3.28	0.73	61.38	0.89	24.32	1.14	100.1
43	1.98	6.41	2.56	0.86	60.86	0.95	24.32	1.90	99.85
45	2.37	5.64	3.21	0.74	58.92	1.23	24.87	3.99	101.0
48	1.92	6.13	3.01	0.77	61.85	0.77	25.07	0.93	100.4
49a	2.45	5.37	3.32	0.66	59.22	0.83	28.42	0.49	100.8
50	2.58	5.77	3.67	0.72	62.52	0.92	22.93	1.47	100.6
51	2.57	5.56	2.99	0.73	59.16	0.95	27.92	0.59	100.5
52	3.15	6.10	3.57	0.71	60.88	0.66	26.07	0.52	101.7
54	2.37	6.60	3.89	0.72	65.81	0.96	20.14	0.76	101.3
55	1.78	6.82	3.44	0.82	66.73	0.85	19.98	0.55	101.0
56	2.79	6.40	4.34	0.72	60.77	0.63	24.48	n.d.	100.1
1a	2.42	5.82	3.28	0.64	58.25	1.08	28.28	0.69	100.5
3	2.12	6.16	2.97	0.86	59.69	1.00	27.37	0.83	101.0
7	1.70	6.59	3.49	0.84	66.09	1.03	20.53	0.69	101.0
11	2.71	7.13	2.55	0.79	65.91	1.23	19.29	0.89	100.5
12	1.99	6.23	3.44	0.78	65.40	1.02	20.72	1.04	100.6
15a	2.41	5.62	2.79	0.64	58.70	0.95	27.18	1.45	99.73
16	2.22	6.16	2.50	0.81	61.28	1.01	26.55	0.68	101.2
21	1.99	5.75	3.07	0.77	58.54	0.95	29.59	0.47	101.1
23a	2.30	6.01	2.86	0.75	58.91	1.07	27.87	1.15	100.9
24	2.10	5.90	3.04	0.72	58.93	0.85	27.96	n.d.	99.49
30	3.21	5.27	3.21	0.83	58.69	1.91	25.26	1.67	100.0
32	2.35	5.95	3.35	0.69	63.24	0.85	24.50	n.d.	100.9
35	2.43	5.83	3.20	0.78	58.32	1.02	28.54	0.76	100.9
38	2.33	6.06	3.09	0.72	59.14	1.64	25.84	1.92	100.8
39	2.45	5.93	3.15	0.79	60.52	0.97	26.57	0.61	101.0
40	5.44	6.95	1.18	0.71	62.13	3.14	17.16	3.91	100.6
44	2.68	5.79	3.44	0.65	58.33	0.96	28.22	n.d.	100.1

OtC-V grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
3	11.65	17.57	0.87	0.54	43.84	n.d.	26.41	n.d.	100.9
45	4.51	14.53	1.06	0.45	60.59	0.79	17.11	1.54	100.6
1	7.28	15.34	0.71	0.81	52.05	0.63	23.41	n.d.	100.2
20	8.54	15.19	0.57	0.82	51.93	0.62	23.16	n.d.	100.8
8a	4.48	18.35	1.38	0.69	46.06	n.d.	29.39	n.d.	100.4
19	7.22	15.81	0.71	0.73	51.95	0.57	23.62	n.d.	100.6
31	7.43	14.67	0.57	0.87	52.81	0.53	23.96	0.35	101.2
37b	4.11	17.41	0.72	1.22	53.60	n.d.	23.89	n.d.	101.0
47	10.99	23.71	1.87	0.79	40.99	n.d.	22.17	n.d.	100.5
49	8.22	17.31	0.63	0.77	52.22	0.60	21.01	n.d.	100.8

OtC grains 32-63 μm (plus 54 OtC grains only semi-quantitatively analysed in unpolished state, results not included here)

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	10.65	11.64	0.31	n.d.	56.48	n.d.	21.07	n.d.	100.2
2	5.93	11.79	1.33	0.37	37.22	n.d.	43.72	0.36	100.7
4	11.78	22.82	0.36	0.26	41.72	n.d.	23.58	n.d.	100.5
5	4.33	10.26	0.25	n.d.	52.92	0.55	31.42	0.39	100.1
6	5.86	8.35	0.28	n.d.	62.99	0.44	22.85	n.d.	100.8
9	8.82	20.31	0.43	n.d.	43.18	n.d.	26.44	n.d.	99.18
12	13.37	20.13	0.92	n.d.	48.72	0.37	17.23	n.d.	100.7
13	20.73	6.33	0.18	n.d.	62.26	0.75	10.23	n.d.	100.5

16	5.65	12.82	0.53	n.d.	55.89	n.d.	24.65	0.57	100.1
17	11.53	25.02	0.45	n.d.	37.22	0.40	26.79	n.d.	101.4
18	10.94	26.34	0.53	0.21	33.06	0.45	28.69	n.d.	100.2
20	6.87	5.81	n.d.	n.d.	66.34	n.d.	20.87	0.44	100.3
24	8.41	5.83	n.d.	n.d.	64.87	2.20	14.71	4.92	100.9
28	5.49	14.85	1.71	0.34	39.62	n.d.	37.61	0.30	99.91
32	5.68	8.95	0.55	0.23	45.45	0.67	39.41	n.d.	100.9
33	3.84	9.49	1.15	0.38	41.37	0.53	43.88	n.d.	100.6
35	5.09	7.07	58.97	n.d.	n.d.	0.49	28.25	0.40	100.3
40	6.97	9.01	0.43	n.d.	56.18	0.64	27.3	n.d.	100.5
42	4.83	9.97	0.46	n.d.	50.53	0.54	34.4	0.35	101.1
43	7.95	14.18	1.29	0.42	44.32	0.41	31.91	n.d.	100.5
46	8.59	16.68	0.35	n.d.	51.18	n.d.	22.84	n.d.	99.64
49	20.33	9.32	n.d.	n.d.	55.54	1.11	13.40	n.d.	99.70
53	4.68	4.58	n.d.	n.d.	61.54	0.65	27.39	2.23	101.1
54	9.54	37.12	n.d.	n.d.	22.41	0.29	30.51	0.42	100.3
55	2.88	9.06	0.45	n.d.	54.41	0.74	32.79	n.d.	100.3
56	6.51	16.58	0.38	n.d.	56.69	3.48	14.21	2.51	100.4
2	4.98	12.07	0.86	n.d.	41.60	0.51	39.77	0.39	100.2
3	3.78	10.83	0.93	0.32	44.60	0.51	38.84	n.d.	99.81
4	6.30	13.49	0.59	n.d.	46.09	n.d.	33.72	0.30	100.5
10	10.41	19.83	0.42	n.d.	40.66	0.52	27.8	n.d.	99.63
12	13.12	17.36	0.60	n.d.	50.32	0.53	18.63	n.d.	100.6
13	5.65	12.77	0.97	n.d.	38.88	0.50	41.55	n.d.	100.3
16	4.67	10.71	1.40	0.37	45.13	0.45	37.84	0.34	100.9
17	5.33	13.05	0.80	0.38	48.36	0.53	32.69	n.d.	101.2
21	4.99	7.64	0.36	n.d.	61.53	0.61	24.88	0.43	100.5
23	8.32	22.29	0.34	n.d.	41.43	n.d.	27.76	n.d.	100.2
26	10.84	17.75	0.24	n.d.	55.23	n.d.	15.58	0.35	99.97
27	5.36	12.27	1.21	0.35	33.20	0.48	47.78	n.d.	100.7
29	3.50	14.58	3.05	0.31	55.76	0.56	22.68	0.30	100.7
31	5.31	11.94	n.d.	n.d.	59.86	0.40	22.87	n.d.	100.4
33	13.68	34.83	0.29	n.d.	33.82	n.d.	17.30	n.d.	99.92
35	2.74	6.63	0.36	n.d.	22.81	n.d.	67.46	n.d.	100.0
36	2.84	13.19	n.d.	n.d.	50.18	0.45	33.51	0.58	100.8
39	5.47	17.04	0.36	n.d.	48.24	n.d.	29.24	0.25	100.6
40	7.02	11.18	n.d.	n.d.	59.40	n.d.	21.37	n.d.	98.97
44	0.24	7.96	0.76	n.d.	44.22	3.83	39.70	2.85	99.57
46	5.09	12.04	0.26	0.20	56.44	0.56	25.57	n.d.	100.2
47	9.69	21.17	n.d.	0.28	47.53	0.44	20.88	0.45	100.4
2	6.23	11.1	1.24	0.22	45.62	0.44	34.77	n.d.	99.61
4	5.91	13.65	1.22	0.24	43.93	n.d.	35.33	0.35	100.6
5	5.74	12.18	0.53	0.28	49.42	0.44	32.17	n.d.	100.8
6	10.19	15.41	0.21	n.d.	50.55	0.46	23.75	n.d.	100.6
9	4.97	10.38	0.28	n.d.	49.46	0.48	35.57	n.d.	101.1
10	4.82	14.28	1.21	n.d.	49.49	0.75	29.78	0.54	100.8
13	10.53	26.23	n.d.	0.21	40.60	0.43	22.66	n.d.	100.7
14	4.55	10.80	0.53	0.19	54.90	n.d.	29.10	n.d.	100.1
17	5.63	9.96	0.77	0.27	51.97	0.50	31.91	n.d.	101.0
18	5.42	13.77	0.38	0.27	50.07	0.54	30.29	0.34	101.1
20	3.71	14.02	0.38	n.d.	49.94	n.d.	33.40	n.d.	101.5
22	10.27	19.90	0.29	n.d.	45.67	n.d.	23.30	n.d.	99.42
25	6.86	15.63	0.69	0.20	44.44	0.48	32.29	n.d.	100.6
26	4.00	8.90	0.30	0.31	46.67	n.d.	40.60	0.43	101.2
27	14.24	34.78	n.d.	n.d.	27.90	n.d.	22.75	n.d.	99.67
28	6.71	13.80	0.59	0.41	56.50	0.65	21.27	0.39	100.3
29	8.05	12.42	n.d.	n.d.	53.11	n.d.	25.84	n.d.	99.42
33	3.54	5.11	n.d.	n.d.	42.95	0.65	48.30	n.d.	100.6

34	3.83	6.46	2.16	0.38	35.64	0.53	51.55	n.d.	100.6
36	3.70	8.22	0.53	0.19	59.15	0.51	27.35	n.d.	99.64
41	4.76	14.69	0.53	0.27	54.91	0.46	24.75	0.41	100.8
42	5.74	9.08	1.58	0.23	36.90	0.45	46.21	n.d.	100.2
43	5.52	24.83	n.d.	n.d.	44.09	n.d.	25.73	0.59	100.8
45	9.64	21.60	0.32	n.d.	40.1	0.48	28.19	n.d.	100.3
48	10.13	7.31	0.40	n.d.	59.86	0.74	22.50	n.d.	101.0
50	11.22	8.62	n.d.	n.d.	62.34	n.d.	17.37	1.10	100.6
53	7.77	18.95	2.82	0.36	39.26	0.41	31.29	0.35	101.2
54	7.54	13.10	0.88	0.23	53.49	0.59	24.50	n.d.	100.3
14	5.16	8.75	2.23	0.66	35.26	0.53	46.99	n.d.	99.58
7	6.00	16.37	0.74	0.51	28.36	0.53	47.29	n.d.	99.80
11	2.79	8.42	7.74	1.33	24.54	0.83	55.07	n.d.	100.7
14	1.77	4.27	4.31	0.65	22.51	0.65	65.43	n.d.	99.59
18	5.06	9.03	2.32	0.48	29.13	0.38	53.21	n.d.	99.61
22	8.45	17.71	2.36	0.74	28.19	0.40	42.70	n.d.	100.5
53	6.98	14.49	2.99	0.67	26.19	0.35	48.17	n.d.	99.84
46	3.63	10.84	2.94	0.86	43.71	0.61	38.40	0.49	101.5
51	7.76	22.28	0.69	0.60	15.13	0.27	53.67	n.d.	100.4
52	7.63	18.18	2.83	0.62	17.90	0.47	52.11	n.d.	99.73

-0.82 to -1.10 m

Weight 5.5 kg.

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.15	6.27	3.69	0.74	62.41	0.78	23.84	0.34	100.2
2	2.65	5.92	3.06	0.81	59.09	1.04	27.82	0.79	101.2
3	1.51	5.88	3.19	0.74	62.08	n.d.	26.17	n.d.	99.57
4	2.26	5.90	3.34	0.72	63.38	0.63	22.40	0.52	99.15
5	2.01	6.10	3.98	0.70	57.93	0.67	30.68	n.d.	102.1
6	2.37	6.24	2.64	0.88	59.34	1.16	28.72	n.d.	101.3
7	2.68	5.44	3.10	0.70	60.34	0.71	27.51	1.00	101.5
8	2.44	5.40	3.54	0.79	59.56	0.94	27.65	0.37	100.7
9	2.42	5.94	3.23	0.83	60.88	1.13	28.99	0.46	103.9
10	1.69	5.73	3.50	0.80	63.48	0.48	22.11	0.81	98.61
11	2.15	5.59	3.24	0.67	60.91	0.76	30.42	0.80	104.5
12	2.69	5.71	3.02	0.75	59.90	n.d.	28.48	n.d.	100.6

OtC-V grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	3.80	11.43	0.57	0.55	55.41	n.d.	27.01	n.d.	98.76

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.58	11.56	3.37	0.36	24.23	n.d.	53.02	n.d.	99.12
2	2.63	9.42	n.d.	n.d.	50.69	0.64	35.09	1.10	99.57
3	7.47	21.37	0.60	0.35	40.62	0.53	28.15	n.d.	99.09
4	6.35	17.05	1.19	0.42	42.15	n.d.	32.11	n.d.	99.26
5	22.18	9.52	n.d.	n.d.	40.29	0.84	26.85	n.d.	99.68

6	7.92	14.58	0.46	0.33	49.14	n.d.	27.66	n.d.	100.1
7	5.20	11.52	0.51	n.d.	54.55	n.d.	27.87	n.d.	99.66
8	13.51	34.93	2.02	n.d.	20.71	n.d.	29.28	n.d.	100.5
9	6.05	12.60	1.21	0.41	41.25	n.d.	38.71	n.d.	100.2
10	7.12	29.63	0.34	n.d.	35.20	n.d.	28.18	n.d.	100.5
11	6.37	11.07	0.94	0.42	37.55	0.51	43.08	n.d.	99.93
12	10.57	16.70	0.26	n.d.	51.10	0.14	21.88	n.d.	100.7
13	9.71	18.24	1.63	0.35	30.08	n.d.	39.29	n.d.	99.30
14	n.d.	6.86	n.d.	0.29	44.68	2.88	38.73	4.03	97.47
15	6.69	10.33	0.44	n.d.	58.27	n.d.	23.21	n.d.	98.93
16	3.42	10.53	1.29	0.37	30.19	n.d.	55.17	n.d.	101.0
17	9.14	17.66	0.35	n.d.	48.26	0.67	24.52	n.d.	100.6
18	9.96	16.55	2.02	0.37	37.39	n.d.	32.48	n.d.	98.77
19	6.30	16.44	2.72	0.56	40.13	n.d.	34.56	n.d.	100.7
20	4.78	13.96	1.52	0.46	32.92	0.40	45.51	n.d.	99.55
21	5.58	12.29	3.17	0.64	23.74	n.d.	53.88	n.d.	99.30
22	5.27	14.46	2.56	0.53	35.94	n.d.	41.65	n.d.	100.4
23	8.17	14.48	5.30	0.50	28.11	n.d.	43.31	n.d.	100.4
24	4.29	9.37	1.01	0.61	33.94	0.53	51.08	n.d.	100.8
25	5.73	11.68	4.26	0.59	32.57	0.46	44.28	n.d.	99.57
26	7.21	13.48	1.18	0.53	37.53	n.d.	39.53	n.d.	99.47
27	3.07	7.53	0.79	0.51	14.30	n.d.	72.58	n.d.	98.77
28	4.82	8.40	4.62	0.55	23.73	0.63	58.80	n.d.	101.5

-1.05 to - 1.35 m

Weight 101 kg.

EC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
2	3.69	6.52	2.29	0.73	58.93	1.06	25.39	1.30	99.90
4	3.62	6.39	2.44	0.62	58.24	1.09	25.74	0.81	98.95

OtC-V grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
5	7.96	9.53	0.76	0.94	59.74	1.09	18.15	1.84	100.0
7	8.03	9.59	0.75	0.94	59.74	1.12	17.76	1.66	99.59
8	7.92	9.54	0.87	1.00	59.82	1.02	18.21	1.80	100.2
9	7.81	9.51	0.82	0.98	60.58	0.90	17.67	2.46	100.7
10	4.77	10.24	0.76	0.77	55.77	0.79	27.35	n.d.	100.5

OtC grains >63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	1.01	5.08	9.16	0.72	41.00	0.79	41.72	n.d.	99.48
3	16.01	42.77	n.d.	n.d.	25.88	n.d.	16.74	n.d.	101.4
6	9.87	16.93	n.d.	n.d.	52.20	0.54	20.40	n.d.	99.93

EC grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
5	2.79	5.91	3.66	0.77	57.67	0.79	28.73	0.47	100.8
6	3.38	7.04	2.33	0.70	62.16	1.13	22.05	2.30	101.1
7	2.08	5.89	3.94	0.88	57.25	0.89	29.32	0.70	101.0
12	5.50	6.81	2.18	0.67	65.24	1.08	16.79	1.34	99.63
32	7.03	6.00	2.74	0.73	59.25	0.75	24.53	0.33	101.4
41	2.65	7.33	1.66	0.84	59.66	1.70	23.11	2.06	99.00
44	2.05	5.41	2.10	0.67	59.38	3.84	24.12	2.45	100.0
52	2.05	6.12	2.81	0.85	59.66	0.68	28.02	0.63	100.8
59	2.12	5.68	3.46	0.73	58.91	1.32	27.99	0.68	100.9
17	2.20	6.40	2.20	0.80	58.70	0.61	28.96	0.51	100.4
37	2.49	5.72	3.12	0.78	59.20	0.84	27.70	0.52	100.4
43	5.89	6.48	2.14	0.63	61.22	1.15	22.47	0.89	100.9
44	3.03	6.04	2.94	0.73	60.37	0.75	25.97	0.83	100.7
46	3.44	6.94	1.89	0.69	60.47	1.61	25.06	0.77	100.9
47	2.81	5.59	3.55	0.73	58.17	0.81	26.55	1.96	100.2
52	3.18	6.79	1.67	0.81	62.71	1.62	20.37	2.79	99.94
1	2.18	5.52	2.70	1.00	58.39	3.65	23.42	3.18	100.0
6	3.12	6.47	2.38	0.67	60.32	0.93	26.18	0.55	100.6
8	4.33	6.68	2.57	0.62	60.34	0.95	25.21	n.d.	100.5
9	2.21	6.40	2.96	0.77	58.92	0.90	27.65	0.44	100.3
14	3.34	6.43	2.34	0.74	61.38	0.96	25.30	0.86	101.4

OtC-V grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.58	10.25	0.83	0.58	59.79	0.93	16.80	3.59	99.34
49	5.72	12.76	1.64	0.53	55.36	0.74	24.15	0.40	101.3
56	6.89	13.11	0.74	0.92	55.03	0.84	22.00	n.d.	99.54
36	3.46	10.34	0.47	0.91	58.36	1.14	25.08	0.98	100.7
38	5.05	8.53	0.98	0.72	61.05	0.82	23.16	n.d.	100.3
64	1.91	1.89	0.73	0.62	64.95	2.69	20.91	5.09	98.79
72	1.11	9.71	3.76	0.90	58.21	0.77	25.96	n.d.	100.4
10	4.44	14.70	2.39	0.66	50.30	0.65	26.98	n.d.	100.1
21	5.50	12.59	1.68	0.48	55.88	0.61	23.89	n.d.	100.6

OtC grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
2	10.87	11.12	0.32	n.d.	54.89	0.56	22.21	n.d.	99.97
3	5.50	13.22	0.51	0.24	49.23	0.66	31.31	n.d.	100.7
4	8.80	26.37	1.32	0.40	24.52	n.d.	37.83	n.d.	99.23
8	10.69	19.84	0.80	0.34	39.44	0.47	27.74	n.d.	99.32
9	11.97	21.60	1.36	0.26	41.75	n.d.	22.27	n.d.	99.22
10	0.36	0.47	0.37	n.d.	42.37	1.94	51.77	1.35	98.65
11	10.30	22.08	0.62	n.d.	42.22	n.d.	25.30	n.d.	100.5
13	14.57	13.43	0.28	n.d.	55.77	0.43	16.17	n.d.	100.7
14	9.25	19.35	n.d.	n.d.	48.13	n.d.	21.86	n.d.	98.58
15	16.06	33.61	n.d.	n.d.	35.80	n.d.	15.15	n.d.	100.6
16	9.48	15.39	0.30	n.d.	50.95	0.47	23.15	n.d.	99.74
17	11.45	21.86	0.69	0.38	40.43	n.d.	24.52	n.d.	99.32
18	17.26	38.90	n.d.	n.d.	28.00	n.d.	15.59	n.d.	99.74
19	17.22	34.57	0.33	n.d.	32.26	n.d.	15.14	n.d.	99.53
20	8.53	16.67	0.32	n.d.	50.77	0.47	23.80	n.d.	100.6
21	10.46	29.34	0.58	n.d.	34.50	n.d.	25.15	n.d.	100.0
22	14.96	32.02	0.31	n.d.	35.15	n.d.	16.31	n.d.	98.75

24	10.05	18.75	0.35	n.d.	47.22	n.d.	23.25	n.d.	99.61
25	10.93	18.11	0.47	0.29	47.08	0.43	23.30	n.d.	100.6
26	7.75	13.43	0.94	n.d.	43.95	0.58	32.74	n.d.	99.39
27	5.63	13.81	1.13	0.31	57.63	0.78	21.83	0.37	101.5
28	11.34	21.47	0.46	0.19	42.75	n.d.	23.48	n.d.	99.70
29	9.28	17.95	0.49	0.27	46.02	n.d.	25.86	n.d.	99.87
30	9.69	19.16	0.69	0.32	42.38	n.d.	26.64	n.d.	98.88
31	2.23	10.44	1.36	n.d.	47.54	0.68	36.67	0.70	99.63
33	n.d.	1.16	0.70	n.d.	49.72	1.85	38.30	8.16	99.89
34	13.02	10.42	0.35	n.d.	58.03	n.d.	17.92	n.d.	99.74
35	10.34	21.34	0.62	0.28	37.85	n.d.	29.72	n.d.	100.2
37	7.65	16.00	0.79	0.43	52.70	0.70	21.38	n.d.	99.65
38	12.60	19.83	0.32	n.d.	46.91	0.44	21.56	n.d.	101.7
39	10.78	27.36	0.69	0.33	34.48	n.d.	26.41	n.d.	100.1
43	11.36	23.95	0.54	0.32	34.71	n.d.	27.83	n.d.	98.71
45	13.67	27.10	n.d.	n.d.	42.12	0.27	15.77	n.d.	98.93
46	9.86	22.11	0.33	n.d.	41.41	n.d.	26.36	n.d.	100.1
47	2.54	6.31	n.d.	n.d.	58.31	0.77	31.56	0.73	100.2
48	9.61	20.45	0.50	n.d.	43.32	n.d.	24.95	n.d.	98.83
50	7.07	13.87	2.72	0.43	44.16	0.58	30.76	n.d.	99.59
51	7.20	11.94	5.45	0.70	36.26	0.48	38.53	n.d.	100.5
53	8.38	25.24	1.23	n.d.	34.57	0.46	29.27	n.d.	99.16
54	16.15	28.41	0.28	n.d.	40.02	0.37	14.93	n.d.	100.2
55	7.97	11.01	0.22	n.d.	57.18	0.88	22.51	0.81	100.6
57	10.92	19.99	0.34	n.d.	44.11	n.d.	24.29	n.d.	99.65
58	16.18	36.35	0.52	n.d.	31.15	0.28	16.26	n.d.	100.8
60	9.17	15.43	0.75	n.d.	50.21	n.d.	24.27	n.d.	99.83
61	9.67	21.20	0.68	0.24	41.20	n.d.	26.74	n.d.	99.74
62	4.16	3.68	n.d.	n.d.	66.38	1.65	21.08	2.74	99.70
64	10.80	24.18	0.60	0.34	38.78	n.d.	25.16	n.d.	99.86
1	10.89	22.84	0.44	n.d.	42.46	n.d.	22.84	n.d.	99.48
2	4.60	17.75	1.11	0.35	38.03	0.50	38.08	0.33	100.8
3	7.04	18.98	0.37	0.28	43.80	n.d.	28.76	0.27	99.50
4	8.95	22.28	0.87	0.28	32.64	0.85	33.12	0.48	99.47
5	15.34	28.99	0.44	n.d.	38.34	0.39	17.24	n.d.	100.8
6	5.36	9.95	n.d.	n.d.	63.69	0.54	20.10	n.d.	99.63
7	5.71	10.24	n.d.	n.d.	63.87	n.d.	20.26	n.d.	100.1
8	11.13	21.74	0.55	0.23	39.60	n.d.	27.52	n.d.	100.8
9	4.18	19.38	0.67	n.d.	42.56	0.52	33.17	0.49	101.0
10	9.76	19.47	n.d.	0.25	54.85	0.41	15.82	n.d.	100.6
11	9.94	21.93	0.53	0.28	42.20	n.d.	25.28	n.d.	100.2
13	13.62	34.87	0.50	0.36	22.26	0.25	28.45	n.d.	100.3
15	4.33	12.89	0.66	n.d.	46.91	0.51	35.35	n.d.	100.7
16	4.27	21.53	0.68	n.d.	33.71	n.d.	39.85	0.49	100.5
18	5.65	14.02	0.46	0.31	48.11	0.51	30.66	0.50	100.2
19	10.08	33.32	n.d.	n.d.	34.11	0.45	20.88	0.53	99.36
20	9.09	4.13	n.d.	n.d.	63.90	1.02	20.04	1.41	99.58
21	8.38	21.43	1.64	0.30	31.95	0.46	35.49	n.d.	99.64
22	13.82	21.28	0.41	n.d.	45.34	n.d.	19.47	n.d.	100.2
23	5.43	14.47	0.46	n.d.	51.09	0.51	27.82	n.d.	99.77
24	6.89	16.99	0.17	0.29	48.14	0.43	27.18	0.32	100.4
25	9.29	19.98	0.66	0.31	40.81	n.d.	28.98	n.d.	100.0
27	15.62	36.95	0.52	n.d.	25.72	n.d.	21.40	n.d.	100.2
28	10.45	18.17	2.10	0.30	27.09	n.d.	41.91	n.d.	100.0
30	11.96	23.70	0.61	n.d.	41.05	0.40	21.99	n.d.	99.70
29	9.43	21.02	0.86	0.36	39.72	0.44	27.42	n.d.	99.24
31	8.89	14.34	0.99	n.d.	52.45	n.d.	23.14	n.d.	99.82
32	14.40	24.54	0.26	0.22	43.00	n.d.	18.97	n.d.	101.4

33	8.79	15.08	0.27	0.33	51.53	0.55	23.80	n.d.	100.3
34	10.65	20.77	0.47	0.36	41.81	n.d.	25.86	n.d.	99.92
35	10.56	23.67	0.71	0.33	39.69	0.41	25.04	n.d.	100.4
39	13.06	27.46	0.54	0.32	37.13	n.d.	22.23	n.d.	100.8
40	9.65	13.54	0.36	n.d.	54.12	0.46	21.48	n.d.	99.62
42	12.83	10.53	n.d.	n.d.	59.88	n.d.	16.69	n.d.	99.93
41	9.27	22.46	0.67	0.33	42.71	n.d.	25.21	n.d.	100.7
45	10.76	27.65	0.33	n.d.	33.65	n.d.	26.65	n.d.	99.03
48	10.78	21.28	0.76	0.36	35.65	0.49	31.13	n.d.	100.5
49	n.d.	4.70	0.63	n.d.	58.38	1.80	30.87	3.66	100.0
50	8.34	17.32	2.07	n.d.	44.22	n.d.	28.16	n.d.	100.1
51	13.79	35.95	1.13	n.d.	31.05	n.d.	18.93	n.d.	100.9
53	6.81	11.38	2.46	0.37	37.90	0.49	41.82	n.d.	101.2
54	6.26	13.57	0.62	0.39	48.64	n.d.	31.75	n.d.	101.2
55	1.30	11.55	1.05	0.38	47.72	0.60	37.91	0.55	101.1
56	6.68	13.24	n.d.	n.d.	57.74	0.45	21.96	0.43	100.5
57	9.83	10.88	0.25	n.d.	58.86	n.d.	20.38	n.d.	100.2
58	9.35	17.99	0.63	n.d.	46.01	n.d.	25.95	n.d.	99.92
59	11.49	21.35	0.39	n.d.	46.12	n.d.	21.30	n.d.	100.7
60	2.51	6.42	0.23	n.d.	60.75	0.53	29.76	0.40	100.6
61	7.71	12.17	0.62	n.d.	51.72	0.47	28.09	n.d.	100.8
62	10.53	21.62	0.39	0.21	45.63	0.50	22.43	n.d.	101.3
65	2.22	11.30	1.76	0.30	36.88	0.71	46.18	0.83	100.2
66	9.72	20.07	0.47	n.d.	48.12	0.46	22.53	n.d.	101.4
67	5.06	14.27	0.49	0.40	57.77	n.d.	21.86	n.d.	99.86
68	7.70	19.25	0.56	0.29	44.35	0.46	27.93	n.d.	100.5
69	8.98	12.88	0.41	n.d.	54.47	n.d.	22.86	n.d.	99.60
70	10.07	21.86	1.24	0.32	37.71	n.d.	28.69	n.d.	99.88
71	7.90	23.96	0.68	0.30	40.74	1.31	24.36	1.67	100.9
2	17.38	34.30	0.24	n.d.	33.31	n.d.	14.35	n.d.	99.58
3	15.58	22.28	0.15	0.15	47.30	0.34	14.29	n.d.	100.1
4	14.35	10.81	n.d.	n.d.	60.52	0.59	14.05	n.d.	100.3
5	18.61	41.48	n.d.	n.d.	24.86	n.d.	15.11	n.d.	100.1
7	8.79	17.48	0.58	n.d.	51.40	n.d.	21.75	n.d.	100.0
11	0.52	7.31	0.23	n.d.	45.27	7.33	31.95	7.18	99.77
12	6.89	20.65	1.08	0.32	35.20	0.51	35.25	n.d.	99.91
13	13.34	31.20	0.28	n.d.	35.94	0.36	19.14	n.d.	100.3
15	11.30	11.28	0.39	n.d.	54.94	0.60	21.76	n.d.	100.3
16	11.49	33.30	0.29	n.d.	35.81	n.d.	18.94	0.25	100.1
17	10.22	17.11	0.47	0.32	47.50	n.d.	25.28	n.d.	100.9
18	8.55	21.62	0.62	0.28	42.29	n.d.	26.47	n.d.	99.84
19	10.27	20.67	0.73	0.41	40.97	0.46	26.19	n.d.	99.70
20	7.67	8.81	0.27	n.d.	58.39	0.52	25.42	n.d.	101.1
23	7.55	31.36	n.d.	0.78	30.25	n.d.	29.48	n.d.	99.43
36	0.55	12.99	4.08	0.47	42.63	1.66	35.49	1.06	98.94
40	10.52	32.98	1.13	1.54	28.71	n.d.	24.82	n.d.	99.70
42	6.09	8.18	1.23	0.49	38.66	n.d.	44.71	n.d.	99.35
63	7.55	17.34	1.09	0.51	25.86	n.d.	46.83	n.d.	99.19
12	6.54	14.60	2.14	0.45	33.60	0.46	41.81	n.d.	99.59
14	3.73	7.70	2.06	0.50	44.61	n.d.	40.24	0.47	99.30
26	2.89	3.97	6.88	1.07	27.25	0.54	57.56	n.d.	100.2
63	5.04	30.82	1.45	0.49	36.06	0.49	24.73	0.81	99.91

-1.22 to - 1.42 m

Sample weight 103 kg.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.20	6.03	3.33	0.75	61.20	0.78	22.32	0.46	101.7
2	4.92	6.85	2.33	0.77	59.13	0.95	23.94	0.94	99.82

OtC-V grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	1.00	12.09	2.14	0.62	56.04	0.61	27.90	n.d.	100.4

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	14.28	28.82	n.d.	n.d.	38.95	0.44	16.84	0.44	99.78
2	10.33	19.92	n.d.	n.d.	47.24	n.d.	21.99	n.d.	99.47

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	5.24	5.66	3.32	0.74	58.72	0.74	24.79	0.41	99.63
2	4.03	7.04	2.31	0.68	58.71	1.03	25.27	1.57	100.6
3	4.59	7.41	2.27	0.77	65.48	0.66	19.58	0.45	101.2
4	8.20	6.33	2.17	0.76	62.10	0.59	20.37	0.28	100.8
5	3.41	6.65	2.15	0.77	59.72	1.54	24.99	1.40	100.6
6	1.76	6.25	2.66	0.82	57.54	0.87	28.85	0.62	99.36
7	4.78	6.42	2.87	0.82	57.38	0.76	25.10	1.08	99.21
8	1.88	4.58	2.88	0.74	60.22	0.85	28.47	1.33	101.0
9	4.57	6.71	2.17	0.73	59.99	0.92	23.57	1.03	99.68
10	3.84	6.85	2.39	0.67	60.26	1.34	23.92	2.07	101.3
11	4.06	5.91	3.16	0.77	59.34	0.67	25.88	0.47	100.3
12	2.36	4.94	3.34	0.70	58.91	0.83	28.82	0.54	100.4
13	1.72	4.54	2.22	0.82	61.98	0.91	26.27	0.71	99.17
14	1.61	7.49	2.23	0.87	63.77	1.01	20.12	1.44	98.54
15	2.66	5.51	2.79	0.90	59.63	0.69	26.56	0.62	99.36
16	2.57	5.71	3.48	0.73	60.04	0.90	27.08	n.d.	100.5
17	4.76	4.72	2.14	0.83	61.78	1.12	24.41	1.13	100.9
18	1.77	6.49	3.70	0.78	56.98	0.65	26.50	3.09	99.97
19	4.20	6.52	1.84	0.83	60.32	n.d.	19.22	1.55	94.48
20	4.21	9.53	1.39	0.93	58.04	0.79	22.30	1.45	98.65

OtC-V grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	4.78	13.12	0.49	0.52	55.28	n.d.	25.58	n.d.	99.78
2	8.59	15.15	1.01	0.51	54.17	0.72	20.15	0.29	100.6
3	2.79	12.11	1.48	0.53	57.25	0.70	23.66	n.d.	98.54
4	4.35	11.36	0.78	0.76	56.99	0.64	25.23	0.58	100.7
5	3.86	18.00	1.37	0.58	49.88	0.67	25.82	n.d.	100.2
6	1.44	9.55	3.85	0.53	51.25	0.73	31.28	n.d.	98.63
7	3.09	16.65	0.81	0.47	53.72	0.59	24.53	n.d.	99.85

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	5.72	22.46	0.78	0.30	37.28	0.56	32.53	n.d.	99.62
2	7.23	18.33	0.65	0.37	43.15	0.42	29.92	n.d.	100.1
3	5.69	15.14	0.36	0.22	51.81	0.53	25.94	n.d.	99.69
4	12.32	26.02	3.03	n.d.	34.49	n.d.	23.67	n.d.	99.52
5	8.04	19.30	0.61	0.25	47.13	0.49	24.94	n.d.	100.8
6	7.73	10.11	n.d.	n.d.	63.95	n.d.	18.73	n.d.	100.5
7	10.86	20.49	0.68	0.28	39.83	n.d.	27.88	n.d.	100.0
8	7.59	14.06	0.27	n.d.	50.96	1.57	25.05	n.d.	99.50
9	4.62	12.08	0.41	n.d.	53.23	0.47	30.09	n.d.	100.9
10	8.65	9.13	0.26	n.d.	58.97	0.48	22.84	n.d.	100.3
11	9.19	21.97	0.59	0.30	39.63	0.50	27.83	n.d.	100.0
12	10.53	22.27	0.78	0.35	33.87	0.40	30.59	n.d.	98.80
13	3.66	14.12	0.46	0.27	47.73	n.d.	33.77	n.d.	100.0
14	9.07	15.17	0.41	n.d.	50.70	1.34	23.64	n.d.	100.3
15	10.70	24.11	0.78	0.30	36.23	n.d.	27.11	n.d.	99.23
16	4.50	13.14	0.66	0.39	48.69	0.51	32.19	n.d.	100.1
17	9.90	14.99	n.d.	n.d.	51.13	n.d.	23.64	n.d.	99.66
18	2.15	3.60	0.27	n.d.	18.46	n.d.	73.80	n.d.	98.28
19	11.57	20.13	3.60	0.30	31.90	0.44	31.26	n.d.	99.20
20	11.26	31.72	1.16	0.22	29.46	n.d.	26.50	n.d.	100.3
21	15.52	36.73	0.48	n.d.	31.44	n.d.	15.25	n.d.	99.43
22	2.58	10.67	0.66	n.d.	51.24	4.56	17.47	12.49	99.68
23	6.50	21.47	0.58	0.30	39.27	0.44	30.70	n.d.	99.26
24	9.19	22.65	0.81	0.40	35.58	0.37	31.78	n.d.	100.8
25	8.63	17.96	0.45	n.d.	45.87	n.d.	26.06	n.d.	98.98
26	10.70	22.68	0.62	0.25	39.76	n.d.	26.38	n.d.	100.4
27	10.28	19.50	1.34	0.26	42.35	n.d.	25.98	n.d.	99.71
28	8.22	18.88	n.d.	n.d.	44.53	0.63	26.87	n.d.	99.13
29	12.32	29.06	0.28	n.d.	40.00	n.d.	17.07	n.d.	98.73
30	11.11	15.09	0.49	n.d.	49.03	0.46	24.38	n.d.	100.6
31	16.59	33.83	0.21	n.d.	34.20	n.d.	14.47	n.d.	99.30
32	2.55	3.73	0.46	0.31	28.87	0.42	63.98	n.d.	100.3
33 [§]	0.35	0.77	n.d.	n.d.	43.96	0.52	21.69	13.53	87.13
34	11.61	22.95	0.33	n.d.	41.82	0.40	22.77	n.d.	99.88
35	12.70	26.26	0.59	0.23	37.02	n.d.	24.12	n.d.	100.9
36	12.07	7.08	n.d.	n.d.	62.93	1.52	15.14	1.00	99.75
37	9.91	9.09	n.d.	n.d.	58.41	n.d.	23.01	n.d.	100.4
38	14.9	27.87	0.40	n.d.	40.49	n.d.	15.06	n.d.	98.73
39	5.35	13.62	1.01	n.d.	46.79	n.d.	33.05	n.d.	99.82
40	6.86	5.41	n.d.	n.d.	62.97	0.70	24.64	0.94	101.5
41	14.16	27.61	0.46	n.d.	38.51	n.d.	18.18	n.d.	98.92
42 [§]	0.70	0.81	4.21	0.54	31.79	n.d.	11.89	23.83	84.93
43	10.72	21.52	n.d.	n.d.	52.09	0.57	14.82	0.63	100.3
44	10.10	19.76	0.55	n.d.	43.67	n.d.	24.78	n.d.	98.86
45 [§]	n.d.	2.58	n.d.	n.d.	43.94	1.40	30.60	7.65	90.93
46	9.93	10.62	n.d.	0.21	58.24	n.d.	21.20	0.35	100.6
47	4.70	13.17	0.67	0.34	47.02	n.d.	32.69	0.38	98.97
48	13.59	14.71	0.27	n.d.	53.83	n.d.	17.97	n.d.	100.4
49	11.63	20.12	0.45	n.d.	47.61	n.d.	19.33	n.d.	99.13
50	0.51	13.32	0.52	n.d.	51.23	0.88	28.82	3.53	98.81
51	14.77	40.89	1.38	n.d.	16.75	n.d.	26.26	n.d.	100.1
52	12.41	23.03	0.47	0.29	41.64	n.d.	22.27	n.d.	100.1
53	9.89	9.68	n.d.	n.d.	58.36	n.d.	21.21	0.29	99.43
54	17.35	37.48	0.30	n.d.	30.24	n.d.	15.89	n.d.	101.3

55	11.19	10.25	0.24	n.d.	58.32	n.d.	20.23	0.36	100.6
56	10.66	15.95	0.42	n.d.	50.05	n.d.	21.67	n.d.	98.76
57	5.29	11.89	0.40	n.d.	60.58	n.d.	21.41	n.d.	99.56
58	10.82	19.80	0.31	n.d.	44.87	0.36	23.74	n.d.	99.91
59	15.84	31.41	0.38	n.d.	34.82	n.d.	17.24	n.d.	99.68
60	9.35	7.22	n.d.	n.d.	60.53	0.53	22.52	0.7	100.9
61	10.03	19.98	0.73	n.d.	41.50	n.d.	27.02	n.d.	99.27
62	10.88	22.96	0.46	n.d.	41.90	n.d.	22.56	n.d.	98.77
63	12.63	22.10	0.43	n.d.	44.22	n.d.	20.83	n.d.	100.2
64	10.09	10.78	0.17	n.d.	57.23	n.d.	22.08	n.d.	100.4
65	9.95	17.96	0.88	0.37	40.40	n.d.	31.17	n.d.	100.7
66	7.01	16.27	3.15	n.d.	39.27	0.55	32.77	n.d.	99.02
67 [§]	0.38	1.08	0.25	0.32	45.55	0.94	19.36	13.97	84.82
68	13.14	34.14	n.d.	0.24	34.00	n.d.	19.16	n.d.	100.7
69	6.63	21.06	0.58	0.36	40.67	n.d.	30.02	n.d.	99.31
70	8.74	14.75	0.35	n.d.	51.05	0.71	24.09	n.d.	99.69
71	12.00	11.11	n.d.	n.d.	59.13	0.39	16.36	n.d.	99.00
72	8.45	15.02	0.37	0.26	50.37	n.d.	24.89	n.d.	99.36
73	7.04	10.35	n.d.	0.31	58.69	5.36	18.02	0.64	100.4
74	1.29	22.42	n.d.	n.d.	38.28	1.41	33.72	1.53	98.65
75	14.31	39.40	0.58	n.d.	27.93	n.d.	18.07	n.d.	100.3
76	8.19	25.07	1.04	n.d.	32.41	0.55	32.03	n.d.	99.29
77 [§]	0.49	6.77	5.28	0.33	37.17	0.54	15.67	26.17	95.61
78	16.6	34.56	n.d.	n.d.	35.03	n.d.	14.04	n.d.	100.2
79	8.30	10.24	n.d.	n.d.	59.24	n.d.	22.63	0.40	100.8
80	8.24	22.59	0.78	n.d.	42.37	0.41	25.44	n.d.	99.83
81	9.37	20.16	0.72	0.35	40.77	n.d.	27.12	n.d.	98.49
82	15.46	36.09	n.d.	n.d.	36.39	n.d.	12.26	n.d.	100.2
83	7.01	28.18	0.44	n.d.	31.95	n.d.	30.86	0.54	98.97
84	1.50	16.93	1.95	0.47	29.83	0.63	46.81	1.24	99.34
85	5.68	18.12	1.68	0.47	33.75	1.24	37.04	1.12	99.10
86	8.00	13.19	2.70	0.54	38.77	0.32	35.72	n.d.	99.24
87	3.46	8.66	2.23	0.64	15.86	n.d.	69.23	n.d.	100.1
88'	3.23	5.50	5.34	0.65	25.43	0.53	56.85	0.95	98.98
89''	7.94	8.99	6.96	0.71	32.19	0.35	43.12	n.d.	100.7
90	5.13	9.19	1.29	0.46	34.41	0.53	49.43	0.47	100.9
91	5.85	6.38	2.80	0.55	35.81	0.52	48.20	n.d.	100.1
92	5.87	7.91	3.67	0.56	36.97	0.42	44.60	n.d.	99.99
93'''	6.65	13.81	2.64	0.50	42.82	0.45	33.88	n.d.	101.1

[§]Also SiO₂ and CaO, ' NiO 0.50 wt%, '' NiO 0.48 wt%, ''' NiO 0.38 wt%.

-1.47 to -1.69 m

Sample weight 28.0 kg. Results for >63 µm fraction from Schmitz and Häggström (2006), but 32-63 µm fraction studied here.

EC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	4.06	5.48	3.33	0.72	58.83	1.04	25.27	1.14	99.87

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
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1	7.24	14.23	0.23	0.20	48.94	0.55	26.95	n.d.	98.15
2	8.25	16.87	0.51	0.24	47.54	0.53	24.18	n.d.	98.13
3	10.46	7.37	n.d.	n.d.	59.93	0.54	19.80	n.d.	98.18
4	5.11	14.29	0.14	0.14	53.28	0.58	23.98	0.43	97.84
5	4.72	13.69	0.46	0.28	43.01	0.52	35.39	n.d.	98.09
6	10.51	32.12	0.57	0.45	14.48	0.33	39.31	n.d.	97.78

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	0.80	6.35	2.20	0.79	57.83	n.d.	15.31	17.54	100.8
2	2.55	5.66	3.31	0.68	58.56	0.72	28.57	0.54	100.6
3	3.63	6.48	2.19	0.77	62.23	1.22	21.82	1.94	100.3
4	4.38	6.41	3.29	0.78	59.94	0.66	25.19	0.40	101.1
5	2.12	6.37	2.95	0.72	59.50	0.70	27.71	0.32	100.4
6	1.99	6.04	2.88	0.67	60.45	1.05	25.43	1.63	100.2
7	3.43	5.92	2.17	0.63	60.28	1.03	24.83	1.36	99.65
8	2.72	5.82	1.60	0.90	61.65	1.25	26.86	0.61	101.4
9	3.77	6.07	2.47	0.66	60.66	1.03	24.45	2.34	101.5
10	7.82	6.41	2.96	0.77	61.09	0.45	21.97	n.d.	101.5
11	6.23	4.69	3.40	0.75	61.51	n.d.	23.63	0.65	100.9

OtC-V grain 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	5.14	6.20	1.05	0.51	59.98	n.d.	26.18	0.66	99.72

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	10.73	16.24	0.31	n.d.	49.19	n.d.	23.51	n.d.	99.98
2	3.40	18.86	0.27	n.d.	50.36	n.d.	25.81	1.13	99.83
3	6.34	23.74	1.25	n.d.	33.50	n.d.	35.12	n.d.	99.93
4	10.14	15.94	2.11	0.43	31.06	0.56	39.77	n.d.	100.0
5	12.75	30.70	0.72	n.d.	35.68	n.d.	20.98	n.d.	100.8
6	9.25	14.78	n.d.	n.d.	53.55	n.d.	22.43	n.d.	100.0
7	0.29	9.92	n.d.	0.35	47.91	1.35	38.76	1.42	99.99
8	9.07	8.19	n.d.	n.d.	59.39	n.d.	23.23	n.d.	99.89
9	2.93	12.59	1.73	0.31	36.83	0.55	32.53	4.00	91.47
10	11.44	19.30	n.d.	n.d.	46.32	n.d.	24.60	n.d.	101.7
11	10.49	19.84	0.29	n.d.	47.79	n.d.	22.09	n.d.	100.5
12	7.54	11.22	0.34	n.d.	57.92	n.d.	21.68	n.d.	98.71
13	n.d.	13.70	0.43	n.d.	51.27	1.47	30.03	2.10	99.00
14	10.65	20.90	0.66	0.41	35.84	n.d.	31.08	n.d.	99.53
15	1.77	9.47	n.d.	n.d.	54.05	2.59	29.10	2.92	99.90
16	0.85	10.64	0.35	0.25	52.92	1.25	33.21	1.26	100.7
17	9.77	13.00	n.d.	n.d.	52.70	n.d.	24.50	n.d.	99.96
18	10.00	21.98	0.59	0.29	43.27	n.d.	24.45	n.d.	100.6
19	12.91	15.86	n.d.	n.d.	52.29	n.d.	19.80	n.d.	100.9
20	9.87	13.65	n.d.	0.28	52.35	n.d.	23.78	n.d.	99.92
21	4.25	11.02	0.49	n.d.	53.73	n.d.	30.90	n.d.	100.4
22	11.78	22.37	0.32	0.28	40.52	n.d.	24.92	n.d.	100.2
23	6.48	17.99	1.63	0.85	22.65	n.d.	49.61	n.d.	99.21
24	9.45	23.99	0.94	0.49	19.69	n.d.	46.39	n.d.	100.9
25	3.49	6.58	3.93	0.58	39.47	n.d.	45.23	0.75	100.1
26	7.84	15.15	2.10	0.60	31.79	n.d.	43.03	n.d.	100.5

-1.27 to -1.77 m

Sample weight 103.0 kg.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
2	3.61	7.75	2.50	0.81	60.78	0.82	22.31	2.01	100.6

OtC-V grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.48	14.15	0.90	0.48	54.24	0.80	21.84	0.69	99.59
8	5.72	23.79	0.72	0.67	42.33	0.42	26.16	n.d.	99.81

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
3	9.94	8.82	n.d.	n.d.	58.58	0.43	21.45	n.d.	99.22
4	8.89	12.57	n.d.	n.d.	52.37	n.d.	25.35	n.d.	99.17
5	8.53	12.91	n.d.	n.d.	56.21	n.d.	21.91	n.d.	99.56
6	8.62	7.75	n.d.	n.d.	59.88	n.d.	24.57	n.d.	100.8
7	8.79	8.55	n.d.	n.d.	61.63	n.d.	21.71	0.40	101.1

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
10	3.44	6.58	2.42	0.74	59.78	1.44	26.01	1.01	101.4
13	3.56	6.44	2.41	0.69	59.43	1.15	26.45	0.77	100.9
16	4.17	5.81	3.64	0.80	58.78	0.71	25.97	0.57	100.5
18	1.96	5.79	4.26	0.78	57.12	n.d.	31.06	0.47	101.5
25	2.68	5.63	3.11	0.73	60.15	1.43	21.45	5.29	100.5
27	2.46	6.66	2.84	0.75	56.87	0.81	28.60	n.d.	98.99
31	2.52	5.71	4.00	0.67	58.47	0.84	28.33	0.70	101.3
33	2.41	5.85	3.69	0.62	56.69	0.97	27.87	1.08	99.18
38	3.57	7.10	1.92	0.68	60.05	1.01	26.08	1.17	101.6
7	2.37	6.23	3.04	0.81	60.96	0.82	25.35	n.d.	99.58
10	2.71	5.61	3.59	0.73	58.24	0.69	27.05	1.08	99.71
21	3.02	5.21	3.06	0.83	58.55	0.95	26.63	2.25	100.5
23	4.48	6.51	2.22	0.67	59.39	1.19	23.35	2.18	99.98
24	2.51	5.61	2.02	0.83	60.14	0.87	27.02	1.68	100.7
27	2.93	6.17	3.17	0.89	58.51	0.71	27.62	n.d.	100.0
45	3.87	6.24	2.41	0.86	60.10	0.68	26.09	0.60	100.9
4	1.90	5.78	3.06	0.68	58.61	0.98	29.49	0.88	101.4
5	3.50	6.36	2.41	0.68	60.33	1.12	26.24	0.76	101.4
8	2.42	5.78	3.93	0.75	59.15	0.76	26.38	0.66	99.83
12	2.26	6.12	3.78	0.68	59.63	0.74	25.22	0.57	99.00
3	6.26	5.90	3.40	0.76	59.68	0.63	23.68	0.45	100.8
8	2.21	5.81	3.72	0.81	59.31	0.72	26.15	1.09	99.82
12	3.13	5.32	3.79	0.68	58.67	0.85	27.20	0.91	100.6
13	2.91	6.96	2.52	0.77	59.68	1.19	25.40	1.14	100.6
18	1.89	5.93	3.99	0.78	60.33	0.77	26.23	0.62	100.5

21	2.41	5.52	3.59	0.68	61.96	0.62	24.76	0.44	99.97
22	2.81	5.43	4.22	0.70	60.43	0.82	25.78	0.73	100.9
27	6.84	5.43	3.46	0.72	59.95	0.79	23.39	n.d.	100.6
32	2.23	4.92	3.35	0.76	59.07	1.24	27.61	2.02	101.2
36	1.93	5.98	3.48	0.82	58.74	0.71	27.89	0.88	100.4
43	1.91	5.53	3.43	0.76	57.76	0.91	28.97	0.83	100.1
49	5.30	6.40	2.47	0.73	60.14	0.93	22.92	1.35	100.2

OtC-V grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
23	3.49	5.59	0.62	0.51	61.46	1.95	24.67	2.73	101.0
29	5.79	8.85	0.71	0.57	60.52	1.76	20.25	1.88	100.3
42	5.13	21.48	0.65	0.54	45.94	0.45	25.39	n.d.	99.58
16	4.64	7.66	0.51	0.45	59.80	n.d.	26.85	0.58	100.5
18	3.61	15.04	0.97	0.52	52.73	0.70	26.94	n.d.	100.5
32	2.96	9.97	0.86	0.48	59.71	0.83	25.73	0.35	100.9
2	5.71	12.96	0.80	0.66	53.71	0.56	25.70	0.93	101.1
4	2.84	9.74	0.81	0.52	60.69	0.78	23.86	0.71	99.95
11	3.83	12.08	0.71	0.69	59.48	0.49	22.23	n.d.	99.51
42	3.73	11.77	1.23	0.52	57.56	0.66	24.85	0.97	101.3

OtC grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	1.05	27.19	0.68	0.32	32.01	0.45	33.93	5.12	100.8
2	16.28	38.63	0.75	n.d.	22.72	n.d.	21.98	n.d.	100.4
5	8.59	14.54	0.79	0.30	41.51	n.d.	34.44	n.d.	100.2
6	n.d.	1.12	n.d.	0.30	43.55	0.93	30.30	5.48	81.67
7	12.24	15.24	0.32	n.d.	51.87	0.5	20.87	n.d.	101.1
9	13.23	27.95	1.80	n.d.	37.38	n.d.	20.15	n.d.	100.5
12	9.15	13.38	0.54	n.d.	49.59	n.d.	26.83	n.d.	99.49
14	13.33	25.99	0.56	n.d.	38.03	n.d.	22.20	n.d.	100.1
15	9.70	11.26	n.d.	0.18	54.67	n.d.	24.02	n.d.	99.83
19	7.94	9.38	n.d.	n.d.	58.30	n.d.	23.24	n.d.	98.87
20	9.43	13.73	n.d.	n.d.	52.99	n.d.	24.50	n.d.	100.7
21	11.19	27.80	2.48	0.35	22.95	0.28	33.69	n.d.	98.74
22	7.50	10.67	0.51	n.d.	53.16	n.d.	28.27	n.d.	100.1
24	6.14	30.05	0.47	n.d.	23.41	0.44	39.10	0.53	100.1
26	11.59	18.79	0.34	n.d.	45.67	0.49	24.18	n.d.	101.1
28	2.79	12.19	n.d.	n.d.	50.65	1.12	30.64	2.65	100.0
32	4.62	14.81	0.94	0.38	36.50	0.63	41.81	n.d.	99.68
34	6.28	7.68	0.33	n.d.	58.01	0.56	27.23	n.d.	100.1
35	8.52	8.34	n.d.	n.d.	62.79	n.d.	20.77	n.d.	100.4
36	12.00	13.16	0.26	n.d.	54.59	0.36	20.34	n.d.	100.7
37	10.13	24.01	0.74	n.d.	30.53	n.d.	33.10	n.d.	98.51
39	11.12	11.60	n.d.	n.d.	56.36	0.63	20.16	n.d.	99.87
40	7.96	12.02	0.25	n.d.	52.56	0.68	26.18	n.d.	99.64
41	12.56	22.75	0.57	0.26	44.73	n.d.	18.76	n.d.	99.62
43	9.88	8.03	0.33	n.d.	59.39	0.52	21.53	n.d.	99.68
44	11.97	9.81	n.d.	n.d.	58.66	0.58	19.33	n.d.	100.4
1	6.54	24.07	n.d.	n.d.	39.09	0.50	29.09	n.d.	99.27
2	8.74	15.68	0.89	0.27	36.93	n.d.	37.43	n.d.	99.94
3	12.51	17.57	0.25	n.d.	47.41	n.d.	23.63	n.d.	101.4
4	4.61	15.45	0.34	n.d.	46.49	n.d.	32.47	0.55	99.91
5	11.58	10.13	0.28	n.d.	59.98	n.d.	18.63	n.d.	100.6

6	5.72	11.49	0.28	n.d.	61.94	3.45	16.44	0.91	100.2
8	12.01	15.14	n.d.	n.d.	51.26	0.45	20.29	n.d.	99.14
9	15.46	31.54	0.43	n.d.	32.30	n.d.	19.27	n.d.	99.01
11	10.92	19.14	0.35	n.d.	46.43	n.d.	23.68	n.d.	100.5
12	11.90	28.51	1.53	n.d.	32.93	n.d.	25.91	n.d.	100.8
13	11.13	12.43	0.48	n.d.	49.32	0.41	26.71	n.d.	100.5
14	8.02	16.31	0.4	n.d.	52.26	n.d.	22.59	n.d.	99.58
15	0.31	13.99	3.8	0.33	28.86	2.06	45.92	3.47	98.75
17	11.03	12.43	n.d.	n.d.	55.19	0.71	19.71	0.49	99.56
19	11.54	24.96	0.67	0.31	30.57	n.d.	30.55	n.d.	98.59
20	9.33	14.77	n.d.	n.d.	50.59	n.d.	25.64	n.d.	100.3
22	10.45	9.50	n.d.	n.d.	57.73	n.d.	21.60	n.d.	99.28
25	10.05	18.98	n.d.	n.d.	46.94	n.d.	23.25	n.d.	99.22
26	1.33	6.58	n.d.	n.d.	57.75	1.45	31.29	2.38	100.8
28	1.43	10.10	n.d.	n.d.	52.55	1.03	32.17	2.06	99.34
29	11.78	30.22	0.34	0.37	24.91	n.d.	31.82	n.d.	99.43
30	7.92	8.73	n.d.	n.d.	59.68	0.51	22.48	n.d.	99.32
31	3.75	7.58	2.56	0.27	41.19	0.59	45.00	n.d.	100.9
33	5.62	9.78	n.d.	n.d.	54.21	1.58	28.18	0.55	99.92
34 [§]	0.61	3.73	2.14	0.31	40.27	0.80	32.34	8.21	89.60
35	0.53	0.41	4.27	n.d.	34.99	n.d.	12.90	21.8	74.91
37	9.16	14.85	n.d.	0.28	48.55	n.d.	26.75	n.d.	99.60
38	11.72	21.90	0.32	n.d.	44.09	n.d.	22.54	n.d.	100.6
39	6.16	36.43	n.d.	n.d.	22.19	0.32	32.05	2.45	99.60
40	10.12	20.07	0.33	n.d.	44.28	n.d.	24.37	n.d.	99.17
41	10.93	14.49	n.d.	n.d.	49.55	n.d.	25.57	n.d.	100.5
42	12.71	25.74	0.53	0.25	34.18	0.37	25.82	n.d.	99.59
43	7.41	7.38	n.d.	n.d.	58.33	n.d.	27.01	n.d.	100.1
44	7.74	11.43	n.d.	n.d.	54.59	n.d.	26.06	n.d.	99.82
46	7.04	11.81	0.61	n.d.	33.93	0.41	44.69	n.d.	98.50
47	12.58	15.87	n.d.	n.d.	51.63	0.37	20.21	0.18	100.9
2	n.d.	n.d.	n.d.	n.d.	84.98	n.d.	15.03	n.d.	100.0
3	7.51	11.66	n.d.	n.d.	55.44	0.69	25.81	n.d.	101.1
6'	21.96	16.93	0.74	n.d.	20.37	0.61	38.72	n.d.	99.90
7	5.16	18.54	n.d.	n.d.	48.70	0.50	26.52	n.d.	99.43
9	5.60	12.70	1.60	n.d.	45.31	n.d.	33.90	n.d.	99.10
10	11.74	30.08	0.88	n.d.	34.58	n.d.	22.55	n.d.	99.83
11	11.74	30.08	0.88	n.d.	34.58	n.d.	22.55	n.d.	99.83
13	7.17	18.04	0.65	0.31	37.07	n.d.	36.73	n.d.	99.97
1	11.88	33.18	1.07	0.35	16.87	n.d.	35.22	n.d.	98.57
5"	8.29	10.27	n.d.	n.d.	56.50	0.78	25.24	n.d.	101.5
6	7.71	14.34	n.d.	n.d.	54.64	n.d.	22.48	n.d.	99.17
7	10.19	12.42	n.d.	0.26	53.44	n.d.	24.51	n.d.	100.8
9	6.62	13.52	0.32	n.d.	59.51	0.76	19.21	0.88	100.8
14	10.21	21.83	0.88	0.33	30.49	n.d.	35.61	n.d.	99.34
15	5.09	25.45	0.45	n.d.	35.54	0.52	30.86	0.85	98.76
16	8.29	10.85	3.01	0.34	40.98	0.50	36.58	n.d.	100.6
17	9.27	18.17	n.d.	n.d.	48.91	n.d.	23.70	n.d.	100.0
19	2.45	0.56	n.d.	n.d.	43.63	1.72	50.17	0.85	99.38
20	9.83	25.68	1.06	0.34	23.58	0.41	39.32	n.d.	100.2
23	0.89	17.36	0.32	n.d.	46.66	1.36	30.35	2.65	99.59
24	10.88	22.25	0.85	0.29	32.57	n.d.	33.81	n.d.	100.6
25	2.76	14.34	n.d.	0.27	40.74	2.30	34.31	5.71	100.4
26	9.05	9.63	n.d.	n.d.	59.88	n.d.	21.32	99.87	99.87
28	14.2	11.72	n.d.	n.d.	59.26	0.49	13.27	n.d.	98.95
29	4.47	18.55	0.55	n.d.	42.78	n.d.	31.06	0.76	99.16
30	7.38	9.58	0.65	n.d.	57.80	0.65	22.80	0.55	99.41
31	16.17	40.11	0.35	0.21	24.56	n.d.	18.65	n.d.	100.1

33	7.77	16.53	5.16	0.30	28.50	0.43	40.44	n.d.	99.13
34	12.78	27.37	n.d.	n.d.	38.48	n.d.	21.86	n.d.	100.5
35	10.04	27.32	0.29	0.22	39.66	n.d.	21.47	n.d.	99.00
37	11.74	22.43	n.d.	0.23	45.30	0.50	19.84	n.d.	100.0
38	7.82	23.09	2.42	0.28	33.58	n.d.	32.08	n.d.	99.29
39	3.93	7.00	0.37	0.40	58.79	0.64	29.21	n.d.	100.3
40	10.20	9.62	n.d.	n.d.	58.67	0.62	21.50	0.52	101.1
41	2.24	12.11	n.d.	n.d.	49.94	1.82	31.76	2.37	100.2
44	10.57	9.34	n.d.	n.d.	57.04	0.45	21.08	n.d.	98.48
45	8.37	21.49	n.d.	n.d.	46.03	n.d.	22.93	0.38	99.20
46	11.43	9.86	n.d.	n.d.	58.38	0.65	20.05	n.d.	100.4
47	9.18	9.10	0.25	n.d.	58.78	0.68	21.32	1.41	100.7
48	2.62	19.04	0.58	n.d.	41.40	1.51	31.10	4.36	100.6
50	12.95	33.78	0.66	0.33	29.73	n.d.	21.63	n.d.	99.09
51	9.27	14.64	0.25	n.d.	51.26	0.31	23.84	n.d.	99.57
52	6.50	13.17	0.25	n.d.	53.82	0.46	25.75	n.d.	99.96
3	9.52	23.56	0.69	0.50	23.91	n.d.	40.62	n.d.	98.80
4	9.79	23.33	1.55	0.52	23.07	n.d.	42.66	n.d.	100.9
8	7.22	20.46	2.10	0.59	32.94	0.49	36.70	n.d.	100.5
11	n.d.	5.73	2.85	3.94	32.95	n.d.	51.63	1.24	98.34
17	9.75	24.31	0.59	0.47	23.78	0.39	39.63	n.d.	98.92
30	8.56	20.75	1.19	0.60	20.59	0.26	47.67	n.d.	99.63
36	10.04	24.84	0.56	0.47	24.36	n.d.	39.27	n.d.	99.54
1	6.05	11.05	2.58	0.58	33.48	n.d.	46.02	n.d.	99.76
10	7.96	20.37	0.87	0.54	27.05	n.d.	42.35	n.d.	99.13

[§]Also SiO₂ 1.18 wt%, ' NiO 0.58 wt%, " CuO 0.41 wt%.

-1.97 to -2.12 m

Sample weight 26.0 kg.

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	4.67	5.69	3.79	0.67	60.40	0.31	22.91	0.30	98.74
6	3.59	5.72	2.53	0.63	59.52	0.96	23.70	2.86	99.50
9	4.00	5.60	3.47	0.74	58.21	0.46	26.97	0.30	99.74
15	2.14	5.69	3.45	0.62	57.82	0.35	26.95	1.62	98.65
17	4.54	6.31	2.27	0.71	59.68	0.80	24.51	0.78	99.61
21	3.92	6.51	2.36	0.65	58.64	0.89	25.05	1.24	99.24
29	4.95	5.49	3.41	0.62	58.78	0.38	26.42	0.24	100.3
43	5.31	5.56	3.85	0.70	58.66	0.38	25.59	0.25	100.3
50	3.26	6.51	2.34	0.66	58.11	0.62	27.15	0.61	99.27
53	4.62	6.07	3.70	0.68	62.56	0.18	16.67	0.14	94.61
61	2.59	5.22	3.04	0.61	61.23	0.71	24.67	0.55	98.61
90	1.95	6.00	4.11	0.58	58.93	0.31	23.07	0.67	95.62
94	2.43	6.67	2.35	0.66	62.64	0.54	20.50	0.39	96.18
140	3.26	5.72	3.18	0.63	62.16	0.42	22.74	0.36	98.48

OtC-V grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
103	3.75	10.61	1.08	0.52	59.93	0.23	21.50	0.14	97.75

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
4	9.27	18.37	2.24	0.40	27.75	0.23	38.78	0.10	97.14
7	9.02	15.64	0.27	0.09	49.20	0.19	23.88	0.18	98.46
10	8.25	17.90	1.18	0.34	25.28	0.25	42.75	0.11	96.06
11	8.69	16.72	1.06	0.20	39.17	0.13	30.25	0.20	96.42
13	9.04	14.25	0.88	0.30	35.75	0.21	36.26	0.07	96.75
16	8.23	16.17	0.18	0.53	52.05	0.12	20.26	0.17	97.71
19	7.05	22.44	2.82	0.37	20.77	0.22	43.25	0.13	97.04
23	11.23	31.83	0.78	0.20	30.83	0.11	22.02	0.11	97.13
24	13.39	17.57	0.06	0.23	55.12	0.27	12.02	0.35	99.00
25	9.66	13.15	0.33	0.12	51.15	0.17	22.83	0.09	97.50
26	7.26	10.04	0.17	0.08	53.40	0.21	27.25	0.07	98.47
27	5.30	11.07	0.65	0.42	57.77	0.54	23.26	0.80	99.82
28	9.17	20.11	1.07	0.35	26.50	0.22	39.48	0.05	96.93
32	8.90	21.92	2.19	0.27	37.49	0.12	25.03	0.56	96.47
34	9.71	22.03	1.65	0.35	33.38	0.16	30.56	0.14	97.97
35	9.40	26.16	0.21	0.17	38.13	0.16	22.56	0.18	96.97
37	12.34	24.86	0.44	0.21	41.95	0.06	18.09	0.04	97.97
39	10.36	16.17	1.66	0.28	32.23	0.34	36.11	0.17	97.32
40	9.82	22.08	0.57	0.15	46.58	0.02	15.89	0.17	95.27
41	11.37	38.69	1.26	0.16	19.46	0.11	21.91	0.04	93.00
44	11.84	21.08	0.30	0.07	46.54	0.27	15.73	0.10	95.92
45	0.41	0.72	1.84	0.13	31.78	0.73	57.09	0.51	93.23
47	8.40	24.07	1.29	0.26	30.23	0.54	28.67	0.44	93.91
48	7.68	14.48	0.37	0.13	47.22	0.15	26.00	0.14	96.16
54	9.69	27.46	0.67	0.16	35.75	0.11	21.82	0.14	95.80
55	9.88	16.43	0.54	0.21	46.83	0.12	23.39	0.07	97.47
56	8.47	11.19	0.20	0.14	52.96	0.22	25.20	0.10	98.47
57	14.43	26.78	0.44	0.20	38.87	0.11	16.09	0.06	97.00
59	6.79	16.31	0.35	0.11	52.20	0.36	19.45	0.16	95.73
60	6.92	7.14	0.14	0.10	58.89	0.26	25.48	0.31	99.24
62	13.35	23.65	3.92	0.18	24.45	0.16	31.55	0.04	97.30
63	10.43	22.03	0.54	0.24	42.19	0.11	21.20	0.11	96.85
65	9.37	20.52	0.83	0.30	27.54	0.17	38.28	0.15	97.17
66	9.25	33.19	0.43	0.14	18.85	0.24	34.50	0.34	96.93
67	5.37	3.89	0.04	0.14	65.91	1.03	21.57	2.79	100.8
68	4.66	21.76	0.38	0.42	41.05	0.19	28.68	0.13	97.28
70	11.60	24.31	0.53	0.16	42.16	0.08	18.11	0.08	97.05
72	0.17	1.92	5.33	0.42	35.22	0.04	19.00	22.95	85.04
74	8.34	7.28	0.19	0.12	59.24	0.22	23.08	0.17	98.65
76	9.74	10.19	0.19	0.15	54.30	0.16	23.13	0.07	97.93
81	6.28	10.30	0.22	0.12	55.93	0.10	22.12	0.10	95.17
82	0.39	13.16	1.19	0.68	41.77	0.17	37.43	1.58	96.36
83	8.47	7.10	0.18	0.13	56.60	0.16	26.20	0.20	99.03
84	1.84	0.88	0.53	0.18	45.97	0.30	45.17	0.31	95.18
86	8.48	13.84	2.76	0.34	34.42	0.15	36.40	0.18	96.55
87	5.45	13.45	0.61	0.42	57.54	0.16	17.98	0.01	95.63
88	13.73	23.09	0.66	0.22	41.80	0.11	18.38	0.05	98.03
93	9.28	20.03	1.08	0.33	26.23	0.21	39.65	0.10	96.90
96	6.71	11.65	0.19	0.16	50.99	0.34	28.25	0.22	98.50
98	7.43	25.53	0.76	0.15	31.04	0.15	30.27	0.17	95.49
99	7.04	14.11	2.33	0.33	33.28	0.25	40.11	0.20	97.65
107	0.39	0.18	0.02	0.15	26.17	0.06	32.47	0.19	59.64

-2.12 to -2.30 m

Sample weight 32.0 kg.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
2	2.36	5.74	4.09	0.71	57.24	0.73	28.30	0.53	99.70

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	12.48	9.14	n.d.	n.d.	60.35	n.d.	17.55	n.d.	99.52

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.45	5.99	2.07	0.75	60.32	1.12	26.59	0.52	99.81
3	1.93	5.69	3.43	0.81	57.80	0.74	27.44	1.68	99.53
4	3.99	6.75	2.46	0.76	59.13	0.73	23.35	2.02	99.20
5	3.73	6.66	2.48	0.69	58.54	1.09	25.13	0.78	99.10
7	1.52	6.30	3.41	0.62	62.60	0.64	24.24	0.39	99.72
8	1.99	5.61	3.31	0.79	58.26	0.78	28.78	0.71	100.2
9	3.79	6.80	1.89	0.69	50.09	0.99	25.74	0.51	99.50
10	3.83	5.94	3.58	0.66	57.28	0.57	26.62	0.64	99.12
11	3.62	5.46	2.61	0.78	64.56	0.63	21.71	0.99	100.4
12	4.44	5.80	1.31	0.80	62.20	1.31	21.89	2.72	100.5
13	3.86	6.14	1.67	0.86	60.77	1.11	24.91	1.28	100.6
16	3.67	6.86	2.46	0.73	61.69	0.90	21.84	0.64	98.79
17	2.72	5.99	2.60	0.66	58.23	0.75	27.67	0.83	99.45
18	2.17	6.28	3.16	0.65	62.71	0.61	23.63	0.91	100.1
19	3.64	5.87	2.59	0.81	59.06	0.83	25.36	0.67	98.83
20	2.41	5.39	2.53	0.69	59.93	1.15	24.14	4.12	100.4
21	3.85	6.59	2.39	0.72	60.02	1.26	25.20	0.74	100.8
22	3.46	5.41	3.68	0.70	57.89	0.83	26.99	0.53	99.49
23	3.47	6.25	3.25	0.74	59.39	0.67	25.72	n.d.	99.49
24	3.21	8.10	3.72	0.55	54.97	0.65	28.08	n.d.	99.27
25	7.11	8.77	1.87	0.66	60.16	0.78	19.60	2.08	101.0
27	2.55	5.55	2.76	0.73	59.43	0.81	28.66	0.51	101.0
29	2.71	6.23	2.92	0.75	59.66	0.85	26.48	1.05	100.7
30	3.32	6.39	3.26	0.79	59.99	0.89	24.49	n.d.	99.13
2	2.45	6.03	2.91	0.81	58.86	0.80	27.99	1.01	100.6
28	2.85	6.87	2.36	0.76	60.25	0.87	26.56	0.51	101.3

OtC-V grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
15	6.94	5.92	0.47	0.69	62.22	0.89	16.15	7.77	101.7
26	7.84	17.55	1.55	0.45	42.65	n.d.	29.08	0.32	99.44
28	5.58	9.41	0.83	0.62	58.41	1.05	22.83	1.61	100.4
21	n.d.	10.23	n.d.	0.63	55.96	2.59	24.66	7.04	101.1
34	4.50	21.07	0.67	0.55	44.98	n.d.	27.03	n.d.	98.81

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	12.42	27.70	0.40	n.d.	42.29	n.d.	17.11	n.d.	99.91
3	7.28	23.05	0.54	n.d.	43.73	0.65	22.10	0.84	98.18
4	12.48	28.19	1.76	n.d.	26.39	n.d.	29.78	n.d.	98.59
5	9.32	21.93	0.91	n.d.	42.15	n.d.	26.76	n.d.	101.1
6	10.37	20.33	0.41	n.d.	46.20	n.d.	23.56	n.d.	100.9
7	9.22	6.12	n.d.	n.d.	64.39	n.d.	22.24	n.d.	102.0
8	11.02	32.01	1.16	0.30	30.43	n.d.	23.39	n.d.	98.30
10	9.04	23.80	1.48	n.d.	43.66	n.d.	20.58	n.d.	98.57
11 [§]	0.64	2.82	2.65	n.d.	41.79	n.d.	28.19	13.42	96.01
12	5.86	12.23	n.d.	n.d.	51.84	n.d.	31.04	n.d.	101.0
13 [§]	n.d.	0.65	n.d.	n.d.	43.29	1.44	30.46	5.48	86.02
14	19.33	18.61	n.d.	n.d.	20.04	1.09	39.67	n.d.	98.74
15	12.57	24.78	n.d.	n.d.	43.16	n.d.	17.52	n.d.	98.03
16	8.48	28.43	0.52	n.d.	35.59	n.d.	26.12	n.d.	99.13
17	11.81	24.72	0.62	n.d.	43.55	n.d.	17.95	n.d.	98.65
18	9.70	24.73	n.d.	n.d.	31.13	n.d.	32.62	n.d.	98.17
20	10.10	37.91	0.83	n.d.	28.32	n.d.	24.12	n.d.	101.3
22	8.52	12.32	n.d.	n.d.	53.57	n.d.	24.38	n.d.	98.79
23	4.90	14.68	n.d.	n.d.	49.47	n.d.	29.86	n.d.	98.92
24 [§]	n.d.	1.67	0.83	n.d.	36.18	n.d.	16.05	16.09	77.81
25	14.00	37.66	n.d.	n.d.	32.29	n.d.	15.66	n.d.	99.61
26 [§]	5.41	14.62	3.81	n.d.	27.70	n.d.	34.43	1.58	91.56
27	7.60	13.55	n.d.	n.d.	55.77	n.d.	24.54	n.d.	101.5
29	1.74	10.81	0.54	n.d.	59.35	n.d.	19.42	6.91	98.76
30	8.71	0.95	n.d.	n.d.	52.55	2.00	31.08	3.61	98.99
31	13.57	36.24	n.d.	n.d.	33.49	n.d.	18.12	n.d.	101.4
32	13.07	31.01	n.d.	n.d.	37.81	n.d.	17.79	n.d.	99.68
33	1.96	1.28	n.d.	n.d.	60.26	n.d.	35.24	n.d.	98.75
35 [§]	0.35	2.73	4.36	0.38	37.05	n.d.	15.76	25.11	89.66
36	11.19	31.48	1.91	n.d.	32.43	n.d.	22.72	n.d.	99.73
37	13.71	3.53	n.d.	n.d.	32.32	n.d.	49.32	n.d.	98.89
38	n.d.	6.97	n.d.	n.d.	52.28	2.61	36.43	2.72	101.0
39	10.59	10.23	n.d.	n.d.	56.67	n.d.	23.84	n.d.	101.3
40	12.96	20.17	n.d.	n.d.	46.59	n.d.	19.09	n.d.	98.82
41 [§]	0.55	1.91	0.80	n.d.	40.76	0.86	26.17	9.35	85.69
42	7.84	5.49	n.d.	n.d.	63.46	n.d.	18.74	2.69	98.22
43	9.91	32.20	n.d.	n.d.	38.02	n.d.	20.86	n.d.	101.0
44 [§]	1.36	10.00	0.83	n.d.	38.04	n.d.	42.95	2.52	97.12
45	3.01	35.75	n.d.	n.d.	20.44	n.d.	34.62	5.92	99.75
46 [§]	n.d.	0.52	n.d.	n.d.	44.90	1.87	32.41	7.58	91.95
47	14.34	30.54	n.d.	n.d.	38.72	n.d.	16.45	n.d.	100.1
48	3.06	12.57	n.d.	n.d.	54.90	n.d.	25.80	1.77	98.10
49	1.74	19.47	0.67	n.d.	42.32	2.12	29.97	2.56	98.85
50	10.87	25.83	0.51	n.d.	43.10	n.d.	18.97	n.d.	99.28
51	10.54	25.12	1.17	n.d.	43.55	n.d.	20.52	n.d.	100.9
52	5.74	8.59	n.d.	n.d.	52.71	1.42	31.26	n.d.	99.71
2	3.82	18.77	0.56	0.45	41.87	0.44	32.41	0.58	98.92
6	2.43	5.85	4.49	0.68	32.22	0.46	52.98	n.d.	99.11
14	n.d.	4.42	0.27	0.36	44.18	2.53	44.53	3.15	99.43
9	7.29	10.83	3.47	0.48	21.50	0.47	55.04	n.d.	99.09
19	2.06	6.69	5.84	0.68	33.57	n.d.	50.39	0.78	100.0

[§]Grains with unusual composition including also SiO₂ in the range 1.42-6.11 wt%, and in some cases <1 wt% Ca, P or K.

-2.35 to -2.60 m

Weight 31.7 kg. From Schmitz and Häggström (2006). Only searched for grains in >63 μm fraction, no chrome spinel grains found.

-2.60 to -2.85 m

Weight 30.2 kg. From Schmitz and Häggström (2006). Only searched for grains in >63 μm fraction, no chrome spinel grains found.

-2.60 to 3.10 m

Weight 104 kg.

In addition to the grains reported below, this sample contained 289 Fe-Cr grains with the approximate composition: 39 wt% FeO, 18 wt% Cr₂O₃, 28 wt% Al₂O₃, 12 wt% MgO, and 1.5 wt% TiO₂. These grains were only analysed semi-quantitatively in an unpolished state, and the results are not included here.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
2	2.35	6.37	3.74	0.67	63.34	0.73	21.77	0.39	99.35
4	3.88	5.73	4.39	0.71	56.46	0.73	25.33	1.85	99.10
5	2.75	6.40	3.83	0.82	59.98	0.63	23.86	0.52	98.78
8	2.16	6.61	4.46	0.75	57.66	0.47	25.55	1.70	99.36

OtC-V grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.13	8.80	0.77	0.80	58.59	0.94	18.23	4.23	98.49
3	4.34	15.30	1.17	0.53	52.33	0.57	26.46	0.28	101.0
6	8.06	10.82	1.50	0.68	58.70	0.97	17.22	1.01	98.96
7	4.12	14.55	4.30	0.76	52.32	0.53	22.63	0.37	99.58

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.20	6.12	4.30	0.82	58.72	0.72	26.09	n.d.	98.97
2	2.45	6.37	3.15	0.75	59.26	0.86	27.52	n.d.	100.4
3	3.69	5.79	3.64	0.72	58.57	0.64	27.97	n.d.	101.0
4	2.51	6.05	3.62	0.85	57.22	0.83	27.90	1.64	100.6
5	3.24	5.92	3.23	0.91	58.52	0.73	26.50	0.56	99.62
6	2.61	5.60	3.31	0.79	62.29	0.78	23.89	0.45	99.71
7	4.21	7.15	2.71	0.69	59.37	1.05	25.54	0.66	101.4
8	1.64	6.38	2.99	0.75	60.82	1.22	26.28	0.72	100.8
9	3.30	7.54	1.73	0.83	62.61	0.74	20.35	1.76	98.87

10	3.07	5.18	3.20	0.62	60.87	0.74	25.34	n.d.	99.03
11	3.15	5.45	3.03	0.72	59.65	0.81	25.69	1.54	100.0
12	7.99	6.37	3.27	0.65	58.25	0.52	23.34	n.d.	100.4
13	3.74	6.93	2.00	0.69	59.44	0.96	25.78	0.44	99.97
14	3.32	5.92	2.69	0.71	58.36	1.01	26.32	0.79	99.12
15	1.72	7.32	2.96	0.91	62.38	0.68	22.65	1.09	99.71
16	3.22	4.26	1.23	0.73	62.86	1.64	22.06	3.44	99.45
17	3.27	6.55	2.40	0.84	58.09	1.23	25.37	1.06	98.82
18	3.99	6.89	2.61	0.70	59.83	1.08	24.76	0.68	100.6
19	2.90	5.64	4.00	0.80	62.33	0.90	21.12	1.74	99.43
20	1.94	5.99	3.51	0.75	59.32	0.72	26.46	0.69	99.39
21	2.24	6.11	3.44	0.78	57.72	0.70	29.29	0.43	100.7
22	2.85	6.25	3.20	0.75	58.87	0.72	26.90	n.d.	99.54
23	1.76	6.25	2.60	0.78	57.30	0.78	28.78	0.89	99.13
24	3.87	5.92	2.98	0.84	58.58	0.70	26.97	n.d.	99.86
25	2.62	5.94	3.21	0.81	58.03	0.99	27.39	1.60	100.6
26	3.00	7.21	2.35	0.84	61.09	1.26	24.51	n.d.	100.3
27	3.92	6.56	2.52	0.65	58.69	1.16	24.88	0.67	99.05
28	3.30	6.10	2.96	0.62	59.61	0.93	26.33	0.72	100.6
29	4.53	8.48	1.17	0.70	57.07	0.88	26.36	n.d.	99.20
30	3.01	7.10	1.94	0.77	59.78	1.12	24.45	1.40	99.57
31	3.99	6.93	1.84	0.77	60.14	1.08	24.45	1.67	100.9
32	3.73	6.36	2.95	0.79	59.27	0.79	26.08	0.51	100.5
33	1.52	5.85	3.63	0.77	58.24	0.59	28.36	0.87	99.82
34	1.83	5.28	3.80	0.83	58.05	0.89	27.83	1.11	99.63
36	4.03	6.06	4.38	0.77	62.72	0.57	20.91	0.73	100.2
37	5.20	6.39	1.69	0.76	61.27	1.22	22.91	1.15	100.6
38	4.66	6.47	1.94	0.80	59.57	1.09	23.70	1.80	100.0
39	3.08	6.17	3.16	0.80	58.04	0.84	26.56	0.44	99.09
40	1.35	6.08	3.78	0.81	59.38	0.62	26.50	0.73	99.26
41	2.95	8.98	1.46	0.72	58.82	1.46	21.97	3.60	99.97
18	1.97	5.23	3.92	0.69	56.53	0.78	29.96	0.58	99.65
19	8.82	6.44	3.57	0.80	59.63	0.51	18.88	n.d.	98.64
20	3.98	3.14	1.39	0.70	62.71	0.89	26.11	0.88	99.80
22	2.88	6.43	3.24	0.81	59.36	0.74	25.55	1.09	100.1
26	3.39	5.61	3.78	0.73	57.95	0.64	27.61	n.d.	99.71
29	7.62	6.07	2.48	0.69	59.62	0.59	22.16	0.51	99.74
32	7.73	5.41	3.87	0.78	59.45	0.53	20.72	0.66	99.16
45	2.56	5.73	2.22	0.79	60.13	1.23	24.76	1.55	98.97
53	2.01	5.08	2.33	0.78	60.40	0.63	27.90	0.92	100.0
57	3.70	6.70	1.88	0.75	60.57	1.37	23.45	1.09	99.50
60	2.86	5.34	2.54	0.68	61.83	0.93	23.18	3.39	100.8
64	2.88	5.96	3.22	0.74	60.02	0.86	24.30	2.56	100.6
5	3.78	6.74	2.36	0.74	60.05	1.00	24.81	0.50	99.98
17	4.73	5.10	1.91	0.75	61.61	1.50	22.49	1.51	99.61
63	1.95	5.64	5.08	0.70	56.06	0.41	30.00	n.d.	99.84

OtC-V grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
31	6.12	11.91	0.76	0.73	56.18	0.89	22.06	1.42	100.1
61	3.09	13.72	0.65	0.71	52.43	n.d.	28.28	n.d.	98.88
62	3.86	8.88	0.76	0.52	56.79	0.68	29.43	n.d.	100.9
65	7.71	19.64	0.63	0.45	49.09	0.51	21.34	n.d.	99.37

OtC grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	5.29	13.86	0.93	0.40	53.53	0.97	23.34	n.d.	98.32
2	8.11	9.34	0.42	n.d.	56.78	n.d.	25.05	n.d.	99.69
3	13.10	31.02	0.75	n.d.	37.28	n.d.	18.95	n.d.	101.1
6	10.19	11.57	n.d.	n.d.	53.64	0.60	23.20	n.d.	99.21
7	6.10	11.16	0.99	0.35	57.14	0.75	22.44	0.59	99.52
8	13.52	26.71	0.74	n.d.	41.45	0.52	17.67	n.d.	100.6
9	6.06	10.04	1.82	0.44	58.03	1.31	19.48	3.54	100.7
10	9.12	0.34	n.d.	n.d.	50.71	2.82	33.62	3.20	99.82
11	7.44	24.59	0.93	n.d.	37.42	0.58	28.16	0.40	99.51
12	6.84	7.48	n.d.	n.d.	59.65	n.d.	27.63	n.d.	101.6
14	13.71	28.01	0.45	n.d.	34.99	0.31	22.85	n.d.	100.3
15	14.34	37.19	1.29	n.d.	21.61	n.d.	24.72	n.d.	99.14
21	10.72	36.20	0.49	n.d.	33.09	0.43	18.59	n.d.	99.51
24	6.06	15.92	0.46	0.31	46.25	0.59	29.61	0.32	99.53
25	13.27	27.57	n.d.	n.d.	44.36	0.42	14.73	0.24	100.6
27	9.50	24.77	0.98	0.31	33.45	0.53	29.75	0.27	99.56
28	7.40	6.30	n.d.	n.d.	59.36	0.59	25.88	n.d.	99.53
30	8.12	30.89	0.28	n.d.	36.42	n.d.	23.75	n.d.	99.46
33	3.93	3.47	8.57	n.d.	5.25	0.64	77.72	n.d.	99.58
34	10.59	12.01	n.d.	n.d.	53.98	n.d.	22.42	n.d.	99.00
35	11.67	30.69	0.65	0.38	19.89	n.d.	36.47	n.d.	99.76
36	0.94	0.42	0.30	n.d.	50.02	1.80	34.86	10.86	99.20
37 [§]	2.74	3.93	n.d.	0.33	60.24	0.96	29.79	0.48	99.31
38	8.93	13.99	2.03	n.d.	49.39	n.d.	25.02	n.d.	99.36
39	2.46	4.73	1.73	0.32	51.07	0.79	38.09	0.45	99.65
40	5.10	7.73	0.74	0.30	61.00	1.63	17.80	5.43	99.73
41	13.70	37.02	0.52	n.d.	24.29	0.29	22.94	n.d.	98.76
42	1.48	27.46	n.d.	n.d.	33.10	1.22	29.49	7.11	99.86
43	13.55	28.64	1.08	n.d.	33.50	n.d.	22.01	n.d.	98.78
44	6.57	28.25	0.33	n.d.	34.03	0.49	31.23	0.62	101.5
46	9.82	33.81	0.32	0.24	29.38	0.44	25.35	n.d.	99.35
47	10.13	13.18	n.d.	n.d.	55.90	n.d.	17.20	2.94	99.35
48	4.41	19.44	n.d.	n.d.	47.32	0.71	26.76	1.24	99.88
49	6.93	14.71	1.56	n.d.	45.41	0.44	30.51	n.d.	99.56
50	13.88	20.28	0.59	n.d.	51.15	n.d.	15.49	n.d.	101.4
51	n.d.	2.9	n.d.	n.d.	51.24	1.39	35.54	9.32	99.39
52	12.38	23.71	1.09	n.d.	44.59	n.d.	17.41	n.d.	99.19
54	9.25	19.03	0.91	0.39	31.53	0.47	37.40	n.d.	98.99
55	0.30	15.91	0.66	0.25	39.76	1.18	38.35	3.70	100.1
56	13.93	13.14	n.d.	n.d.	57.27	n.d.	15.09	n.d.	99.42
58	17.00	33.79	0.32	n.d.	34.68	n.d.	13.65	n.d.	99.44
59	11.45	27.82	1.47	0.33	18.53	n.d.	39.84	n.d.	99.44
66	11.04	22.09	0.68	0.25	44.54	n.d.	21.68	n.d.	100.3
67	6.45	13.42	n.d.	n.d.	52.76	0.46	26.85	n.d.	99.94
68	5.54	26.70	n.d.	n.d.	32.74	n.d.	33.40	0.86	99.27
69	6.33	0.46	n.d.	n.d.	49.18	1.94	39.92	1.21	99.03
70	13.10	24.44	n.d.	0.32	46.22	0.45	14.39	0.47	99.39
13	8.94	18.67	1.07	0.54	30.17	n.d.	40.20	n.d.	99.58
16	8.89	17.41	3.23	0.66	21.37	0.41	48.46	n.d.	100.4

[§]Also NiO 0.85 wt%.

-3.12 to -3.27 m

Sample weight 28.1 kg. Results for >63 μm fraction from Schmitz and Häggström (2006), but 32-63 μm fraction studied here.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	4.31	6.34	2.03	0.66	60.47	1.39	23.78	0.75	99.74

OtC-V grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.09	11.34	0.95	0.93	56.88	0.95	22.45	0.28	99.86

OtC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.87	8.07	n.d.	0.19	57.38	0.67	25.54	n.d.	98.91

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	3.64	7.63	2.04	0.83	61.18	1.41	21.59	1.70	100.0
2	2.38	6.14	3.27	0.82	59.90	0.71	27.89	0.28	101.4
3	4.48	6.90	2.24	0.88	60.63	1.09	24.94	n.d.	101.2
4	2.20	5.78	2.98	0.83	58.10	1.04	29.26	n.d.	100.2
5	1.31	6.23	3.37	0.81	61.54	0.71	25.05	0.50	99.52
6	2.43	5.86	3.38	0.82	61.23	1.14	22.84	2.57	100.3
7	2.93	6.49	3.90	0.81	61.71	0.71	23.88	n.d.	100.4
8	2.27	6.95	3.65	0.77	65.48	0.69	20.69	0.74	101.2
9	2.71	5.98	3.79	0.71	57.29	0.87	27.63	1.08	100.1
10	1.92	6.22	3.71	0.73	59.08	0.80	26.89	0.86	100.2
11	3.21	7.05	2.43	0.73	64.19	0.89	20.63	1.20	100.3
12	3.93	6.19	4.62	0.76	61.41	0.62	23.18	n.d.	100.7
13	3.34	7.06	1.36	0.86	62.14	1.47	22.21	1.95	100.4
14	2.73	5.12	1.45	0.79	65.52	2.00	18.93	4.64	101.2
15	3.30	6.34	2.40	0.77	63.22	1.38	20.78	2.48	100.7
16	3.52	6.97	1.66	0.78	62.89	1.71	25.30	1.29	104.1

OtC-V grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	0.38	10.43	1.77	0.72	53.96	0.46	31.14	1.09	99.95
2	3.98	8.55	0.75	0.61	61.68	1.46	24.05	0.41	101.5

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	7.37	22.42	0.25	n.d.	46.99	n.d.	23.01	n.d.	100.1
2	9.46	32.94	0.34	n.d.	28.11	n.d.	29.53	0.67	101.0
3	14.46	39.12	1.28	n.d.	19.83	n.d.	23.94	n.d.	98.64
4	12.88	20.71	1.52	n.d.	42.82	n.d.	22.47	n.d.	100.4
5	0.29	17.04	0.55	0.39	39.53	1.67	36.34	5.04	100.9
6	15.24	26.57	0.53	0.25	38.99	n.d.	17.76	n.d.	99.34
7	14.04	39.83	n.d.	n.d.	24.13	n.d.	23.23	n.d.	101.2

8	7.34	13.14	0.78	n.d.	46.32	n.d.	32.46	n.d.	100.0
9	2.67	6.83	n.d.	n.d.	50.68	0.72	38.95	0.59	100.4
10	3.16	11.90	1.39	n.d.	53.99	0.44	28.67	0.50	100.0
11	7.83	27.73	0.41	n.d.	37.10	n.d.	26.95	0.37	100.4
12	9.33	15.67	1.85	0.41	44.93	n.d.	27.02	n.d.	99.21
13	2.22	12.25	n.d.	n.d.	52.01	2.79	30.49	1.48	101.3
14	7.35	6.51	n.d.	n.d.	62.35	1.05	23.20	n.d.	100.5
15	13.59	28.48	0.86	n.d.	38.62	n.d.	18.99	n.d.	100.5
16	9.59	18.73	n.d.	0.40	55.69	n.d.	14.70	0.81	99.92
17	8.53	13.91	1.44	n.d.	34.60	n.d.	41.26	n.d.	99.74
18	6.10	17.03	0.53	n.d.	47.00	0.53	29.33	0.44	101.0
19	2.58	3.21	n.d.	0.25	63.51	0.76	29.31	0.76	100.4
20	9.83	13.86	0.50	n.d.	54.05	n.d.	21.22	n.d.	99.45
21	0.30	16.32	1.77	n.d.	38.42	0.62	42.59	0.49	100.5
22	5.60	10.63	1.82	n.d.	28.37	0.59	53.32	n.d.	100.3
23	1.63	3.18	2.02	0.26	41.57	0.63	51.06	0.58	100.9
24	7.07	29.91	0.58	n.d.	25.70	0.42	35.47	0.42	99.57
25	11.94	35.21	0.53	n.d.	21.16	n.d.	31.42	n.d.	100.3
26	0.43	14.86	n.d.	n.d.	43.92	2.34	34.27	4.26	100.1
27	13.01	28.73	1.26	n.d.	36.74	n.d.	19.68	n.d.	99.42
28 [§]	9.32	29.94	n.d.	n.d.	25.28	0.46	33.30	1.14	99.89
29	9.32	35.99	n.d.	n.d.	32.97	n.d.	21.51	0.34	100.1
30	0.96	2.17	1.25	0.95	49.15	1.37	35.46	6.77	98.07
31	1.74	8.66	1.14	1.12	49.33	0.50	36.27	1.67	100.4

[§]Also NiO 0.45 wt%.

-3.27 to 3.45 m

Sample weight 27.7 kg. Results for >63 μm fraction from Schmitz and Häggström (2006), but 32-63 μm fraction studied here.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	4.76	5.84	2.39	0.70	60.21	1.37	23.94	0.79	100.0

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.66	6.17	3.99	0.77	57.32	0.86	28.68	0.68	101.1
2	2.59	5.72	4.07	0.73	56.39	0.79	29.07	0.50	99.85
3	4.73	6.90	1.87	0.77	60.26	1.41	23.26	2.31	101.5
4	2.27	6.43	2.79	0.82	61.31	0.92	25.71	n.d.	100.3
5	2.11	6.05	3.71	0.74	59.89	n.d.	27.75	0.43	100.7
6	5.78	6.03	4.23	0.77	57.51	n.d.	24.69	n.d.	99.01
7	3.06	7.63	1.91	0.66	59.96	1.29	25.77	0.52	100.8
8	4.38	6.41	2.01	0.76	60.29	1.28	23.78	0.93	99.85
9	2.63	6.27	2.96	0.80	58.26	0.79	29.09	0.59	101.4
10	1.98	5.49	3.69	0.72	61.26	0.77	25.78	0.45	100.1
11	4.41	5.02	1.16	0.88	63.31	0.58	23.61	0.69	99.66
12	4.69	5.76	3.76	0.74	57.99	0.70	25.81	0.44	99.88
13	2.93	6.82	2.10	0.80	61.58	1.40	23.91	0.60	100.1

OtC-V grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	1.29	10.93	2.37	0.68	60.86	0.84	23.29	n.d.	100.3
2	2.26	12.81	3.60	0.82	38.96	0.52	25.73	15.70	100.4
3	0.20	8.36	7.75	0.61	49.84	0.74	32.39	n.d.	99.89

OtC grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.67	25.50	1.36	0.36	28.02	0.53	36.14	0.37	98.95
2	7.24	16.75	0.33	n.d.	51.18	n.d.	23.17	n.d.	98.66
3	9.59	15.82	0.30	n.d.	49.91	0.56	23.98	n.d.	100.2
4 [§]	0.62	3.79	2.26	0.30	42.28	0.91	32.88	12.36	99.36
5	13.72	18.21	0.32	n.d.	46.32	0.55	21.51	n.d.	100.6
6	8.23	12.17	n.d.	n.d.	55.21	n.d.	24.04	n.d.	99.64
7	6.59	30.55	n.d.	0.39	27.73	n.d.	34.07	0.86	100.2
8 [§]	0.76	15.50	1.90	0.38	34.61	0.92	35.64	6.40	98.30
9	10.40	28.01	2.96	n.d.	24.03	n.d.	33.28	n.d.	98.68
10	13.32	38.34	1.28	0.22	21.94	n.d.	23.81	n.d.	98.92
11	11.45	31.85	0.58	n.d.	27.89	n.d.	27.87	n.d.	99.64
12	5.30	19.84	2.65	0.40	21.12	2.84	46.34	0.46	98.95
13	11.49	26.20	0.30	n.d.	37.88	0.39	24.55	n.d.	100.8
14	2.80	10.32	0.86	n.d.	47.48	0.87	37.68	0.52	100.5
15	8.19	14.64	0.42	n.d.	49.13	0.49	27.09	n.d.	99.96
16	8.11	21.47	1.03	0.25	37.87	n.d.	31.04	n.d.	99.78
17	9.19	24.34	0.84	0.36	32.89	n.d.	32.75	n.d.	100.4
18'	14.30	37.62	0.56	n.d.	28.59	n.d.	19.30	n.d.	100.8
19	3.00	6.27	7.33	0.60	24.20	0.67	54.23	0.44	96.74

[§]Also some Si, P, Ca, ' NiO 0.38 wt%.

-4.30 to -4.50 m

Sample weight 28.1 kg. Results for >63 μ m fraction from Schmitz and Håggström (2006), but 32-63 μ m fraction studied here.

EC grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.09	5.56	2.72	0.66	59.87	0.72	27.88	0.33	99.83
2	1.82	6.13	2.70	0.77	59.33	0.93	29.53	0.45	101.7
3	7.22	6.26	1.32	0.69	63.03	0.84	20.54	0.43	100.3
4	2.45	6.74	1.94	0.71	57.90	1.26	26.11	1.33	98.43
5	2.91	6.06	3.69	0.68	58.14	0.73	28.77	n.d.	101.0
6	2.80	6.20	2.40	0.72	58.54	1.03	28.69	n.d.	100.4
7	1.81	5.42	4.04	0.77	57.47	0.82	29.94	0.53	100.8
8	2.72	6.21	2.60	0.80	60.36	1.09	28.02	0.64	102.4

OtC-V grains 32-63 μ m

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.74	10.36	2.96	0.55	54.35	0.66	30.22	n.d.	101.9

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	6.10	9.94	n.d.	0.32	67.38	n.d.	15.23	n.d.	98.97
2	13.55	31.26	0.75	0.24	26.58	n.d.	27.90	n.d.	100.3
3	6.84	28.88	0.40	n.d.	25.89	0.55	36.01	0.89	99.46
4	11.07	27.83	0.51	n.d.	32.44	n.d.	29.51	n.d.	101.4
5	9.86	14.66	n.d.	0.24	52.10	n.d.	23.78	n.d.	100.6
6	14.43	33.04	0.76	n.d.	26.36	n.d.	25.55	n.d.	100.1
7	12.69	28.47	0.80	n.d.	28.69	n.d.	27.83	n.d.	98.50
8	13.90	32.11	0.59	0.21	26.30	n.d.	26.09	n.d.	99.22
9	11.29	25.17	1.18	0.35	28.64	n.d.	33.26	n.d.	99.89
10	11.95	26.10	0.92	0.32	29.04	n.d.	31.57	n.d.	99.90
11	4.95	23.05	0.67	n.d.	38.29	n.d.	32.51	n.d.	99.46
12	2.15	13.76	0.85	n.d.	32.15	n.d.	49.60	0.75	99.25
13	7.44	37.93	n.d.	n.d.	22.02	n.d.	30.80	0.84	99.03
14	10.93	16.15	n.d.	0.26	53.32	n.d.	18.94	n.d.	99.60

-4.50 to -4.58 m

Sample weight 20.6 kg. Results for >63 μm fraction from Schmitz and Häggström (2006), but 32-63 μm fraction studied here.

EC grains >63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	3.44	6.03	1.43	0.78	61.59	1.06	23.37	0.59	98.29
2	3.21	6.35	2.40	0.71	59.68	1.14	23.46	0.34	97.29

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.03	6.48	3.37	0.92	62.14	1.32	22.32	1.87	100.4
2	1.95	5.98	3.28	0.69	60.33	0.89	26.20	0.47	99.79
3	4.57	6.82	1.78	0.74	60.57	1.70	23.32	1.32	100.8
4	3.48	6.49	2.34	0.75	60.63	0.88	23.98	0.17	98.73
5	3.00	6.31	2.83	0.85	57.16	0.78	28.21	0.53	99.66
6	3.87	6.48	2.53	0.64	60.44	1.05	26.26	0.60	101.9
7	2.34	6.34	3.10	0.79	60.51	0.94	26.20	0.68	100.9

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	15.03	38.29	n.d.	n.d.	30.60	n.d.	16.70	n.d.	100.6
2	6.18	10.87	n.d.	n.d.	59.35	0.58	22.26	0.22	99.47
3	11.48	31.36	n.d.	n.d.	36.13	n.d.	22.09	n.d.	101.1
4	9.45	22.38	0.40	n.d.	45.21	n.d.	21.10	n.d.	98.54
5	9.32	13.17	1.06	n.d.	57.95	n.d.	16.11	2.65	100.3
6	11.56	24.95	1.19	0.29	37.71	n.d.	25.57	n.d.	101.3
7	15.13	31.57	0.78	n.d.	33.99	n.d.	18.59	n.d.	100.1
8	11.33	26.84	0.40	n.d.	40.87	n.d.	20.10	n.d.	99.54
9	12.46	23.59	0.72	n.d.	42.48	n.d.	20.65	n.d.	99.89
10	6.70	21.89	0.37	n.d.	37.39	0.41	31.68	n.d.	98.46

11	1.92	5.83	4.80	0.51	23.49	0.47	62.83	n.d.	99.84
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-5.00 to -5.25 m

Sample weight 30.5 kg. From Schmitz and Häggström (2006). Only searched for grains in >63 µm fraction, no chrome spinel grains found.

-5.45 to -5.70 m

Sample weight 28.0 kg. From Schmitz and Häggström (2006). Only searched for grains in >63 µm fraction, no chrome-spinel grains found.

-5.88 to -6.08 m

Sample weight 23.1 kg. Results for >63 µm fraction from Schmitz and Häggström (2006), but 32-63 µm fraction studied here.

OtC-V grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	4.52	9.06	0.45	0.80	62.10	1.42	20.60	0.72	99.67

OtC grains >63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	12.15	33.71	1.03	0.23	30.12	0.49	20.81	0.63	99.17

EC grains 32-63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	7.36	5.90	3.62	0.70	59.40	0.58	22.86	n.d.	100.4
2	6.47	5.64	3.56	0.61	60.41	0.69	23.78	n.d.	101.2
3	1.39	6.49	3.83	0.69	59.17	n.d.	28.62	n.d.	100.2

OtC-V grains 32-63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	5.28	9.21	0.45	0.81	61.68	1.61	19.41	1.19	99.65
2	5.24	9.40	0.51	0.69	60.51	1.71	19.44	2.28	99.78
3	5.33	12.21	0.32	0.48	53.31	n.d.	27.26	n.d.	98.92

OtC grains 32-63 µm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	13.65	32.83	1.34	n.d.	32.73	n.d.	20.10	n.d.	100.7
2	14.20	23.59	0.48	n.d.	44.60	n.d.	17.32	n.d.	100.2
3	16.89	35.30	0.88	n.d.	30.33	n.d.	16.46	n.d.	99.86

4	14.75	39.12	1.39	n.d.	21.79	0.45	21.73	n.d.	99.23
5	9.68	19.55	0.75	n.d.	48.72	0.51	20.19	n.d.	99.41
6	11.20	23.35	0.69	n.d.	43.36	n.d.	20.91	n.d.	99.51
7	16.08	39.85	n.d.	n.d.	29.89	n.d.	13.82	n.d.	99.65
8	13.92	24.43	0.47	n.d.	44.56	n.d.	17.36	n.d.	100.7
9	11.69	32.43	0.85	n.d.	32.99	n.d.	21.25	n.d.	99.21
10	12.41	25.25	0.86	n.d.	42.38	n.d.	19.36	n.d.	100.3
11	10.63	20.17	0.77	n.d.	49.02	n.d.	18.43	n.d.	99.01
12	9.13	21.81	2.33	0.38	37.43	n.d.	27.80	n.d.	98.87
13	5.58	18.07	2.06	0.44	36.91	0.56	37.22	n.d.	100.8
14	12.55	22.95	0.59	n.d.	46.22	n.d.	18.25	n.d.	100.6
15	4.34	18.48	0.75	0.41	39.15	0.30	35.74	n.d.	99.17
16	11.48	22.55	0.57	n.d.	46.74	n.d.	17.69	n.d.	99.03
17	13.69	27.05	1.20	n.d.	40.49	n.d.	17.22	n.d.	99.65
18	13.80	32.28	0.91	n.d.	33.66	n.d.	18.71	n.d.	99.37
19	14.94	35.58	0.68	n.d.	32.63	n.d.	16.57	n.d.	100.4
20	15.07	31.55	0.75	n.d.	36.27	n.d.	16.44	n.d.	100.1
21	13.76	33.54	1.55	n.d.	31.15	n.d.	20.05	n.d.	100.1
22	10.66	26.26	0.34	n.d.	43.52	0.36	18.47	n.d.	99.61
23	11.57	22.98	n.d.	n.d.	45.66	n.d.	20.04	0.23	100.5
24	6.98	6.10	0.38	n.d.	57.56	n.d.	28.66	n.d.	99.68
25	12.14	31.11	0.73	n.d.	38.88	n.d.	18.1	n.d.	101.0
26	10.07	15.14	0.69	n.d.	47.46	n.d.	26.62	n.d.	99.99
27	11.39	15.25	0.67	n.d.	46.24	n.d.	25.18	n.d.	98.72
28	14.84	27.14	0.33	n.d.	41.23	n.d.	16.25	n.d.	99.79
29	9.43	11.03	n.d.	n.d.	57.97	0.65	20.98	n.d.	100.1
30	2.18	1.65	4.12	0.99	20.86	0.43	60.96	n.d.	91.20
31	12.31	31.93	0.87	0.57	30.58	n.d.	23.60	n.d.	99.86

-6.08 to -6.18 m

Sample weight 20.0 kg. Only the 32-63 μm fraction studied here. Schmitz and Häggström (2006) found no chrome spinel grains in the >63 μm fraction.

EC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	2.72	5.74	4.32	0.72	57.91	0.83	28.83	n.d.	101.1
2	2.93	6.12	2.97	0.84	57.92	1.00	27.02	0.75	99.55

OtC-V grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	0.51	13.95	3.31	0.56	51.58	0.72	29.81	n.d.	100.4
2	4.50	10.69	2.88	0.56	54.26	n.d.	27.11	n.d.	100.0
3	4.53	11.29	2.19	0.46	56.27	0.53	24.14	n.d.	99.41

OtC grains 32-63 μm

Grain	MgO	Al ₂ O ₃	TiO ₂	V ₂ O ₃	Cr ₂ O ₃	MnO	FeO	ZnO	Total
1	15.93	36.33	0.91	n.d.	28.36	n.d.	18.81	n.d.	100.3
2	10.40	24.78	1.77	0.26	22.69	n.d.	40.38	n.d.	100.3
3	10.64	23.19	1.97	0.31	39.93	n.d.	23.44	0.19	99.68
4	12.96	25.30	0.96	n.d.	43.06	n.d.	17.33	n.d.	99.61

5	12.84	23.40	0.50	0.23	45.96	n.d.	17.31	n.d.	100.2
6	7.75	6.95	1.12	n.d.	56.74	n.d.	27.52	n.d.	100.1
7	4.23	17.44	n.d.	n.d.	40.54	0.58	35.78	0.48	99.04
8	10.67	8.26	0.25	0.29	42.68	n.d.	37.76	n.d.	99.91
9	11.66	30.75	0.80	0.25	24.05	n.d.	33.20	n.d.	100.7
10	12.54	28.68	1.62	n.d.	35.86	0.27	21.38	n.d.	100.4
11	9.92	9.02	n.d.	n.d.	65.53	0.40	14.61	0.32	99.80
12	4.82	19.19	0.49	0.43	49.53	0.53	24.32	n.d.	99.31
13	15.63	34.75	0.32	n.d.	34.20	n.d.	14.69	n.d.	99.59
14	13.89	26.90	1.66	0.29	33.28	n.d.	23.53	n.d.	99.55
15	14.39	31.05	0.80	n.d.	35.15	n.d.	17.87	n.d.	99.25
16	7.96	9.14	n.d.	0.44	57.12	n.d.	25.01	n.d.	99.67
17	7.93	18.02	3.54	0.70	31.96	0.48	37.23	n.d.	99.85
18	8.72	15.54	8.84	0.81	22.72	n.d.	41.23	n.d.	97.86

-9.05 to -9.15 m

Weight 26.4 kg. From Schmitz and Häggström (2006). Only searched for grains in >63 µm fraction, no chrome spinel grains found