Table S2. EDS analyses of tranquillityite in Apollo 11 sample 10044 (analyses normalized to a total of 100 %)

Oxide	Trq #3.2		Trq #3.3		Trq #7		Trq #8		Trq #10		Trq #11.1		Trq #11.2		Trq #12.3		Trq #12.5		Trq #14	
	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ
Al_2O_3	0.8	0.4	1.0	0.2	1.2	0.3	1.0	0.2	1.0	0.2	0.9	0.2	0.9	0.2	1.2	0.2	0.8	0.2	1.0	0.2
SiO_2	14.6	0.6	13.6	0.4	14.2	0.4	14.0	0.4	13.7	0.4	13.7	0.4	14.0	0.4	13.7	0.4	15.2	0.4	14.2	0.4
CaO	2.0	0.2	1.2	0.1	1.0	0.1	1.3	0.1	1.2	0.1	1.0	0.1	1.0	0.1	1.0	0.1	1.3	0.1	1.3	0.1
TiO_2	18.8	0.6	21.1	0.4	18.3	0.4	25.5	0.5	19.1	0.4	19.3	0.4	20.2	0.4	19.2	0.4	20.8	0.4	20.4	0.4
FeO	40.6	1.0	42.8	0.7	43.0	0.7	44.5	0.7	42.1	0.7	43.4	0.7	43.4	0.7	42.8	0.7	45.0	0.7	42.8	0.7
Y_2O_3	5.8	1.0	3.1	0.7	3.2	0.7	1.9	0.6	3.6	0.7	1.2	0.7	2.4	0.7	2.9	0.7	1.5	0.7	1.3	0.6
ZrO2	16.3	0.9	16.0	0.6	17.1	0.6	11.2	0.6	16.8	0.6	18.7	0.6	17.5	0.6	17.0	0.6	15.0	0.6	18.0	0.6
Nb_2O_5	1.1	0.9	1.0	0.6	1.1	0.6	0.3	0.5	2.0	0.6	1.3	0.6	0.6	0.6	0.8	0.6	0.4	0.6	0.8	0.5
HfO_2	0.0	0.8	0.2	0.5	0.9	0.5	0.3	0.5	0.6	0.5	0.5	0.5	0.1	0.5	1.4	0.5	0.0	-	0.2	0.5

Table S3. EDS analyses of tranquillityite in Apollo 17 samples (analyses normalized to a total of 100 %)

Oxide	Sample 75055																	
	Trq #9		Trq #13		Trq #18		Trq #23		Trq #24		Trq #28		Trq #29		Trq #33.1		Trq #33.2		Trq #34	
	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ	wt.%	1σ
Al_2O_3	1.2	0.2	1.0	0.2	1.2	0.2	1.6	0.2	1.4	0.2	1.1	0.2	0.8	0.2	1.0	0.6	0.8	0.7	0.3	0.5
SiO_2	14.4	0.2	14.6	0.4	15.1	0.5	15.3	0.4	13.7	0.3	15.2	0.5	14.3	0.4	15.1	1.0	14.6	1.1	14.6	0.8
CaO	1.0	0.2	1.0	0.1	1.3	0.1	0.9	0.1	1.2	0.1	1.2	0.2	1.0	0.1	1.0	0.3	1.7	0.3	4.1	0.3
TiO_2	22.2	0.6	22.3	0.4	22.2	0.5	21.6	0.4	23.7	0.4	21.1	0.5	20.8	0.4	23.3	1.1	23.2	1.3	17.1	0.8
FeO	44.3	0.3	44.9	0.7	43.4	0.8	44.3	0.7	43.3	0.6	44.9	0.9	44.2	0.7	44.5	1.8	44.4	2.0	41.0	1.4
Y_2O_3	3.3	0.6	2.4	0.7	2.5	0.8	1.8	0.7	1.8	0.5	2.5	0.9	2.7	0.7	2.1	1.6	1.0	1.8	3.4	1.4
ZrO2	14.8	0.8	14.1	0.7	14.4	0.9	16.3	0.7	15.5	0.6	16.0	0.9	16.7	0.7	14.7	1.5	14.5	1.6	16.1	1.2
Nb_2O_5	1.8	0.7	0.9	0.6	1.4	0.7	1.2	0.6	0.8	0.5	0.7	0.8	1.1	0.6	0.4	1.3	1.3	1.5	0.0	-
HfO_2	1.1	0.6	1.3	0.5	0.3	0.6	0.0	-	0.4	0.4	0.2	0.7	0.0	-	1.7	1.3	0.3	1.5	1.3	1.0

Table S3. Continued

Oxide	Sample 74255

	Trq #3		Trq #7.1		Trq #7.2	
	wt.%	1σ	wt.%	1σ	wt.%	1σ
Al_2O_3	2.4	0.2	1.6	0.3	1.7	0.3
SiO_2	16.6	0.3	15.4	0.4	16.0	0.4
CaO	1.5	0.1	1.4	0.1	1.1	0.1
TiO_2	22.2	0.4	21.1	0.5	20.8	0.5
FeO	38.3	0.5	42.7	0.7	42.2	0.7
Y_2O_3	2.0	0.6	2.6	0.7	2.0	0.7
ZrO2	16.0	0.5	16.5	0.7	16.7	0.7
Nb_2O_5	0.6	0.4	0.2	0.6	1.0	0.6
HfO_2	0.5	0.4	0.8	0.6	0.2	0.6