

Table 1. Modal abundance of minerals and glasses in finest size fractions of selected Apollo mare soils. Maturity as Is/FeO of the <250 μm fraction [Morris, 1978] is given directly after the soil number, a value commonly used as the reference maturity for an entire soil.

	10084-78			12030-14			12001-56		
	20-45μm	10-20μm	<10μm	20-45μm	10-20μm	<10μm	20-45μm	10-20μm	<10μm
Ilmenite	6.4	5.2	5.0	2.6	3.2	3.0	2.6	1.8	1.6
Plagioclase	16.8	17.1	17.4	15.3	14.0	18.0	13.4	13.9	15.6
Pyroxene	16.0	12.2	8.4	33.8	21.4	15.3	19.9	17.9	13.5
Olivine	1.4	1.1	0.9	4.3	3.7	2.5	3.4	4.2	2.2
Agglutinitic Glass *	53.9	57.0	62.6	39.4	49.8	55.0	56.2	56.8	61.9
Volcanic Glass	3.4	2.9	3.7	1.2	1.5	1.6	1.5	1.3	1.9
Others	2.1	4.5	2.0	3.4	6.4	4.6	3.0	3.8	3.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

	15071-52			15041-94			71061-14		
	20-45μm	10-20μm	<10μm	20-45μm	10-20μm	<10μm	20-45μm	10-20μm	<10μm
Ilmenite	1.9	1.8	1.2	1.2	0.8	0.7	10.4	9.7	7.6
Plagioclase	18.1	19.4	19.8	15.5	16.2	18.0	13.9	15.2	18.1
Pyroxene	22.1	16.7	10.9	22.5	17.0	5.3	20.8	12.5	8.3
Olivine	3.9	2.8	1.9	3.3	2.4	0.6	3.9	4.5	3.8
Agglutinitic Glass	47.6	49.2	59.7	51.3	56.7	70.4	31.4	37.9	45.4
Volcanic Glass	4.0	4.1	3.6	2.3	2.6	1.9	18.9	18.8	15.7
Others	2.4	6.0	2.9	3.9	4.3	3.2	0.7	1.3	1.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

	71501-35			70181-47			79221-81		
	20-45μm	10-20μm	<10μm	20-45μm	10-20μm	<10μm	20-45μm	10-20μm	<10μm
Ilmenite	12.3	9.7	7.6	8.9	6.7	3.4	7.3	6.0	5.2
Plagioclase	16.5	19.8	20.0	16.9	18.3	18.5	16.9	16.0	18.6
Pyroxene	21.3	13.7	8.8	15.7	8.5	4.6	13.5	9.7	3.6
Olivine	3.6	3.4	3.2	3.6	3.8	3.2	4.8	3.4	2.2
Agglutinitic Glass	38.3	44.8	53.1	43.4	51.7	58.3	46.5	54.3	61.5
Volcanic Glass	6.7	7.5	5.9	10.1	9.2	10.3	10.9	9.2	8.0
Others	1.3	1.1	1.5	1.3	1.8	1.7	0.1	1.4	0.8
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

- This designation effectively includes all impact-produced glass, the majority (>90 %) of which is agglutinitic Glass; these are combined because they have similar compositions and both contain nanophase Fe⁰.