Description of Map Units

Materials of Primary Impact Craters and Their Secondary Craters

Copernican Crater Materials



Ccu - CENTRAL PEAK in crater Schomberger A



Cc - CRATER INTERIORS. Floor and inner walls of crater Schomberger A



Cse - EJECTED MATERIAL from crater. Roughtextured contiguous ejecta of crater Schomberger A



Csc - EJECTED MATERIAL, SATELLITIC AND SECONDARY CRATERS of crater Schomberger A

Eratosthenian Crater Materials



Ec - CRATER INTERIORS. Interiors of sharpcrested, bowl-shaped craters; interpreted as Eratosthenian in age



Ese - EJECTED MATERIAL. Contiguous ejecta with subdued morphology at Eratosthenian craters



Esc - EJECTED, SATELLITIC AND SECONDARY **CRATERS** of Eratosthenian craters



Ecl - CRATER ARCUATE-LOBATE SCARPS. Lobate scarps inside some Eratosthenian





Ic2

- Icu2 CENTRAL PEAK AND PEAK RING of flatfloored large craters
- Ic2 CRATER INTERIORS. Floor and inner terraced rim for large craters, or sharp rim and typically bowl shape for small-size craters; interpreted as Upper Imbrian age based on correlation of the absolute model ages and morphology

Ise2 - EJECTED MATERIAL. Contiguous ejecta of Upper Imbrian craters

Isc2 - EJECTED, SATELLITIC AND SECONDARY CRATERS of Upper Imbrian craters, mainly for large craters

Icl2 - CRATER ARCUATE-LOBATE SCARPS. Lobate scarps inside some Upper Imbrian craters.

Interpretation: materials of slumps/landslides formed by surface manifestation of listric faulting

Lower Imbrian Crater Materials





Nectarian Crater Materials



Ncu - CENTRAL PEAK AND PEAK RING of flatfloored large craters



Nc - CRATER INTERIORS. Floor and inner terraced rim of flat-floored craters; interpreted as Nectarian in age based on correlation of the absolute model ages and morphology



Nse - EJECTED MATERIAL. Contiguous ejecta of Nectarian craters



Nsc - EJECTED, SATELLITIC AND SECONDARY **CRATERS** of Nectarian craters



Ncl - CRATER ARCUATE-LOBATE SCARPS. Lobate scarps inside some Upper Imbrian craters.

Interpretation: materials of slumps/landslides formed by surface manifestation of listric faulting

pre-Nectarian Crater Materials



pNcu - PEAK RING of highly degraded flat-floored craters



pNc - CRATER INTERIORS. Floor and inner terraced rim of highly degraded and flat-floored pre-Nectarian craters; interpreted as pre-Nectarian in age based on correlation of the absolute model ages and morphology



Icl2

Ise2



craters. *Interpretation:* materials of landslide formed by surface manifestation of listric faulting

Ic1

Ic1 - CRATER INTERIORS Floor and inner terraced rim or bowl-shaped interiors of Lower Imbrian craters; interpreted as Lower Imbrian age based on correlation of the absolute model ages and morphology

Ise1 - EJECTED MATERIAL. Contiguous ejecta of Lower Imbrian craters



Ise1

Icl1

Isc1 - EJECTED, SATELLITIC AND SECONDARY CRATERS of Lower Imbrian craters, typical for large craters

Icl1 - CRATER ARCUATE-LOBATE SCARPS. Lobate scarps inside some Lower Imbrian craters.

Interpretation: materials of slumps/landslides formed by surface manifestation of listric faulting





pNse - EJECTED MATERIAL. Highly degraded ejecta of the pre-Nectarian craters

Materials with Undifferentiated Age



sc - SATELLITIC AND SECONDARY CRATERS. Clusters and chains of secondary craters of different ages excluding material of Orientale basin

Basin Materials



Ioc - MATERIAL OF ORIENTALE-BASIN. Smooth light plains, clusters and chains of secondary craters that point toward the Orientale basin. *Interpretation:* Ejecta of the Orientale basin

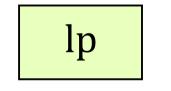
SPA - SOUTH POLE-AITKEN MASSIFS. Isolated, high-standing massifs with steep slopes that lack overlapping ejecta. *Interpretation:* exposed remnants of the rim of the South Pole-Aitken basin

pNmb

pNmb - BASIN MATERIAL. Morphologically homogenous hummocky/rugged surfaces with fragments of rims of ancient impact structures. Interpretation: remnants of pre-Nectarian – Nectarian craters and basins

Plains Materials

Light Plains



lp - LIGHT PLAINS. Light-toned, smooth and/or cratered plains that occur in craters and in the intercrater space, undifferentiated. *Interpretation:* deposits of finer-grain ejecta of remote craters and basins

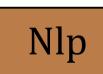


Ilp2 – LIGHT PLAINS. Light-toned, smooth and/ or cratered plains that occur in craters and in the intercrater space; interpreted as Upper Imbrian age based on correlation of the absolute model ages and morphology.

Interpretation: deposits of finer-grain ejecta of remote craters and basins



Ilp1 – LIGHT PLAINS. Light-toned, smooth and/ or cratered plains that occur in craters and in the intercrater space; interpreted as Lower Imbrian age based on correlation of the absolute model ages and morphology. *Interpretation:* deposits of finer-grain ejecta of remote craters and basins



Nlp - LIGHT PLAINS. Light-toned, smooth and/ or cratered plains that occur in craters and in the intercrater space; interpreted as pre-Nectarian - Nectarian age based on correlation of the absolute model ages and morphology. *Interpretation:* deposits of finer-grain ejecta of

In Crater Dark Plains

Cmrp – IN CRATER LIGHT-TONED PLAINS. Morphologically rough plains on the floor of crater Schomberger A. *Interpretation:* impact melt materials

Imrp2 – IN CRATER LIGHT-TONED PLAINS. Morphologically rough plains on the floor of crater Hale; absolute model ages 3.68 +0.02/ -0.023 Ga.

Interpretation: impact melt materials

Imsp2 - IN CRATER LIGHT-TONED PLAINS. Morphologically smooth plains on the floor of crater Hale; absolute model ages 3.68 +0.02/ -0.023 Ga.

Interpretation: impact melt materials

Imrp1 - IN CRATER LIGHT-TONED PLAINS. Morphologically rough plains on the floor of crater Moretus; absolute model ages 3.75 +0.014/-0.015 Ga.

Interpretation: impact melt materials

Imsp1 - IN CRATER LIGHT-TONED PLAINS. Morphologically smooth plains on the floor of crater Moretus; absolute model ages 3.75 +0.014/-0.015 Ga.

Interpretation: impact melt materials

Dark Plains



Ipx2 – DARK PLAINS. Dark mantling deposits with diffuse boundaries, sparsely-cratered and formed by smooth material, in spatial association with pits and graben in the Schrödinger basin; absolute model ages 3.72 +0.030/-0.038 Ga. *Interpretation:* deposits of mare pyroclastic materials



Ilv2 - DARK PLAINS. Smooth plains of darker tone with boundaries clearly seen deformed by wrinkle ridges, highlighted by elevated concentrations of FeO and high-Ca pyroxene in Kaguya data (Lemelin et al., 2022). Localized on the floor of Antoniadi crater; 3.46 +0.020/-0.023 Ga. *Interpretation:* plains formed by basaltic lava flows



Ilv1 - DARK PLAINS. Smooth plains of darker tone with boundaries clearly seen; deformed by wrinkle ridges, highlighted by elevated concentrations of FeO and high-Ca pyroxene in Kaguya data (Lemelin et al., 2022). Localized on the floor of Schrödinger basin; 3.84 +0.027/-0.033 Ga. *Interpretation:* plains formed by basaltic lava flows



Cmrp

Imrp2

Imsp2







remote craters and basins

Linear Structures

gr - GRABENS. System of linear groves. *Interpretation:* System of grabens possibly formed above magmatic dikes in Schrödinger basin, or due to intrusion and floor uplift. Floor in pre-Nectarian crater (356°E 82.8°S) and lower Imbrian Moretus craters also display grooves, but show no signs of volcanic activity



gr - WRINKLE RIDGES. System of linear uplifted features. *Interpretation:* Tectonic forms caused by volcanic activity in Schrödinger basin

ls - LOBATE SCARPS. Scarps, mapped in four localities; features less than ~ 35 km long. *Interpritation:* Tectonic scarps, possible evidence of young tectonic activity in the lunar crust



Nmsp

Nmrp - IN CRATER LIGHT-TONED PLAINS. Morphologically rough plains on the floor of large Nectarian craters. *Interpretation:* impact melt materials

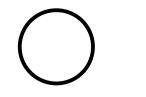
Nmsp - IN CRATER LIGHT-TONED PLAINS. Morphologically smooth plains on the floor of large Nectarian craters. *Interpretation:* impact melt materials

Linear Structures, Point Features and Contacts

Point Features

SMALL CRATER. Small endogenic crater. *Interpretation:* Summit depression that is thought to be the source of pyroclastic mate rials (Schrödinger G)

Contacts



Solid contact line. Show certain border of the unit



Dashed contact line. Show approximate border of the unit