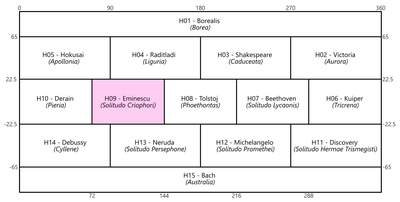
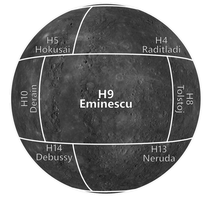
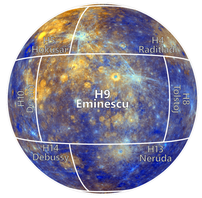
Geologic Map of the Eminescu Quadrangle (H09), Mercury

Tognon G.[1], Galluzzi V.[2], Giacomini L.[2], Man B.[3,4], Wright J.[4,5], Rothery D.[4] and Massironi M.[1,6]

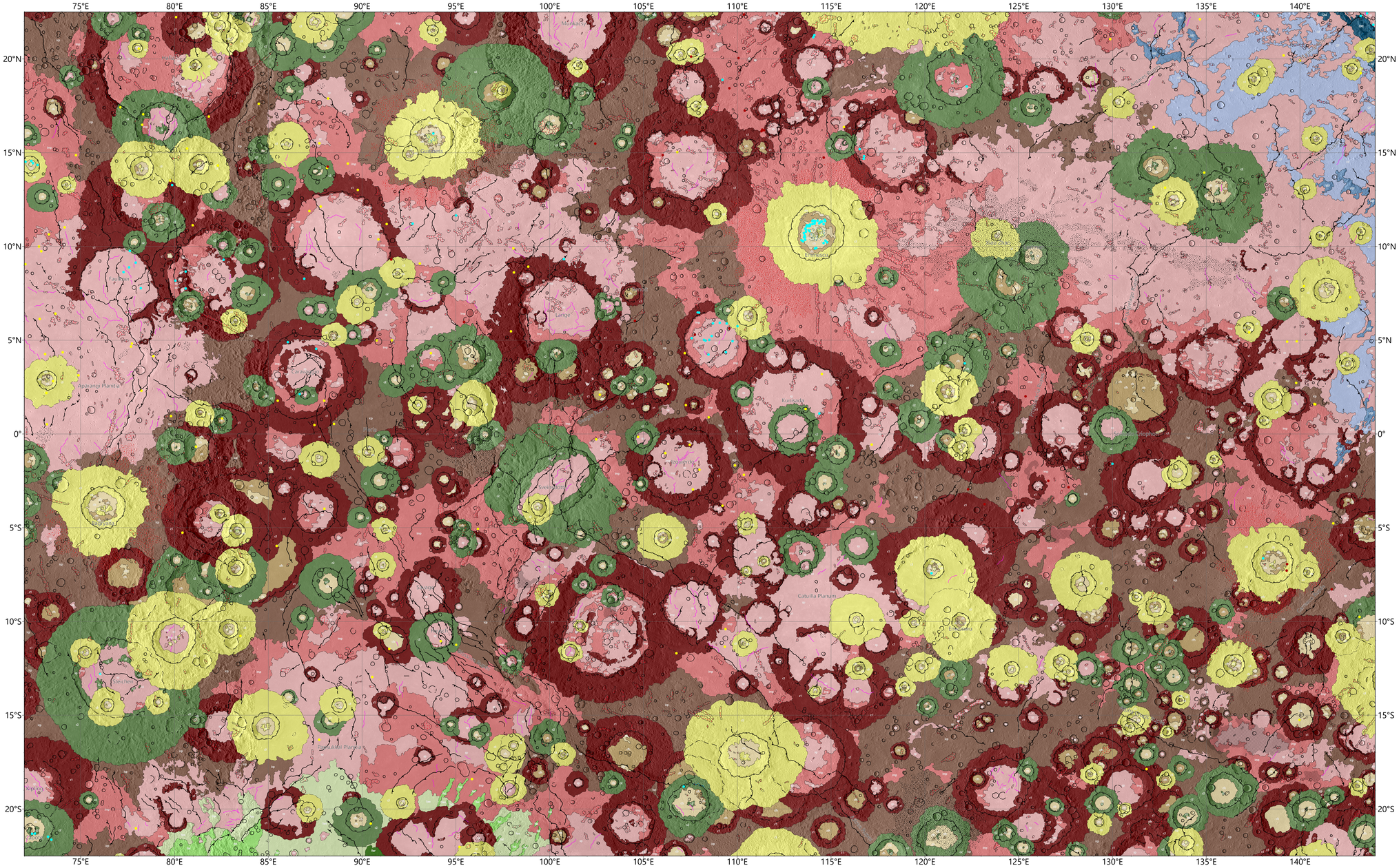
[1] Centro di Studi e Attività Spaziali G. Colombo (CISAS), Università di Padova, Padua, Italy
[2] Istituto di Astrofisica e Planetologia Spaziali (IAPS), INAF, Rome, Italy
[3] European Space Astronomy Centre (ESAC), ESA, Madrid, Spain
[4] School of Physical Sciences, The Open University, Milton Keynes, United Kingdom
[5] Institute for Space, School of Physics and Astronomy, University of Leicester, Leicester, United Kingdom
[6] Dipartimento di Geoscienze, Università di Padova, Padua, Italy

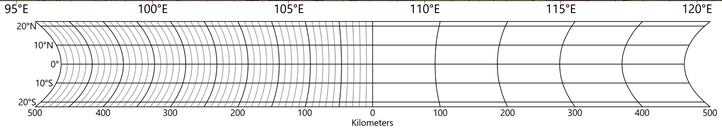






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Geological units

Plains materials

- **Smooth plains** (sp) — Sparsely cratered and gently rolling terrain, volcanic or impact origin
- **Intermediate plains** (imp) — Transitional terrain with moderate roughness, degraded by cratering
- **Intercrater plains** (icp) — Ancient volcanic terrains severely modified by impact processes

Crater materials

- **Smooth crater floor** (cfs) — Sparsely cratered flat floor material formed by impact melt
- **Hummocky crater floor** (cfh) — Rough floor material degraded by impacts and space weathering
- **c3 crater** (c3) — Fresh crater with well-preserved and continuous rim crest and textured ejecta blanket
- **c2 crater** (c2) — Degraded crater with recognizable but subdued rim and degraded ejecta
- **c1 crater** (c1) — Heavily degraded crater with discontinuous rim and non-extensive ejecta

Caloris basin materials

- **Odin Formation** (OF) — Clusters of knobs and hills interspersed within smooth terrains
- **Van Eyck Formation** (VEF) — High-stand bulges and ridges, radially distributed to the Caloris basin
- **Caloris Montes Formation** (CMF) — Massifs demarking the rim crest of the Caloris basin

Rembrandt basin materials

- **Rembrandt lineated ejecta** (Rel) — Ridges radially distributed to the Rembrandt basin
- **Rembrandt ejecta** (Ree) — Rough deposits draping over underlying morphologies and terrains
- **Rembrandt rim material** (Rer) — Massifs demarking the rim crest of the Rembrandt basin

Surface features

- **Bright material** — High albedo ejecta material
- **Hollow** — Irregular flat-floored and shallow depression with high albedo
- **Dark material** — Low albedo material or terrain
- **Secondary crater chain or cluster** — Chain or cluster of craters
- **Rough ejecta** — Discontinuous roughly textured ejecta

Point features

- **Bright material** — Isolated high albedo spot
- **Hollow** — Isolated hollow feature
- **Dark material** — Isolated low albedo spot

Linework

Geological contacts

- Contact, certain
- Contact, uncertain

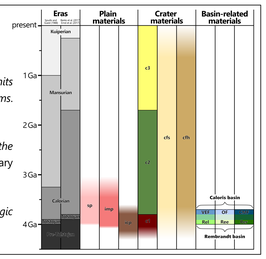
Crater rims

- Rim crest of crater (D≥20 km)
- Rim crest of crater (5<D<20 km)
- Rim crest of buried or degraded crater
- Irregular pit or volcanic vent

Tectonic structures

- Thrust, certain
- Thrust, uncertain
- Graben, certain
- Graben, uncertain
- Wrinkle ridge

Correlation of map units



Banks et al. (2017). *Revised constraints on absolute age limits for Mercury's Kuiperian and Mansurian stratigraphic systems.* JGR Planets, Vol. 122 (5), 1010-1020

Ernst et al. (2017). *Updated absolute age estimates for the Tolstoj and Caloris basins, Mercury.* Lunar and Planetary Science Conference

Spudis, P.D. and Guest, J.E. (1988). *Stratigraphy and geologic history of Mercury*. Mercury, 118-164

Basemaps

Main map and top left globe: MESSENGER MDIS map projected Basemap Reduced data Record (resolution: 256 ppd)

Top right globe: MESSENGER MDIS Enhanced Color global mosaic (resolution: 64 ppd)

Nomenclature sourced from the Gazetter of Planetary Nomenclature, International Astronomical Union's (IAU) Working Group for Planetary System Nomenclature (WGPSN)

Coordinate system

Projection: Equirectangular

Central meridian: 36°

Central parallel: 0°

Sphere radius: 2439.4 km

UNIVERSITÀ DI PADOVA
Centro di Ateneo
Studi e Attività Spaziali
"Giuseppe Colombo" - CISAS

UNIVERSITÀ DI PADOVA
Dipartimento
di Geoscienze

INAF
ISTITUTO NAZIONALE DI ASTROFISICA

esa

UNIVERSITY OF LEICESTER

The Open University