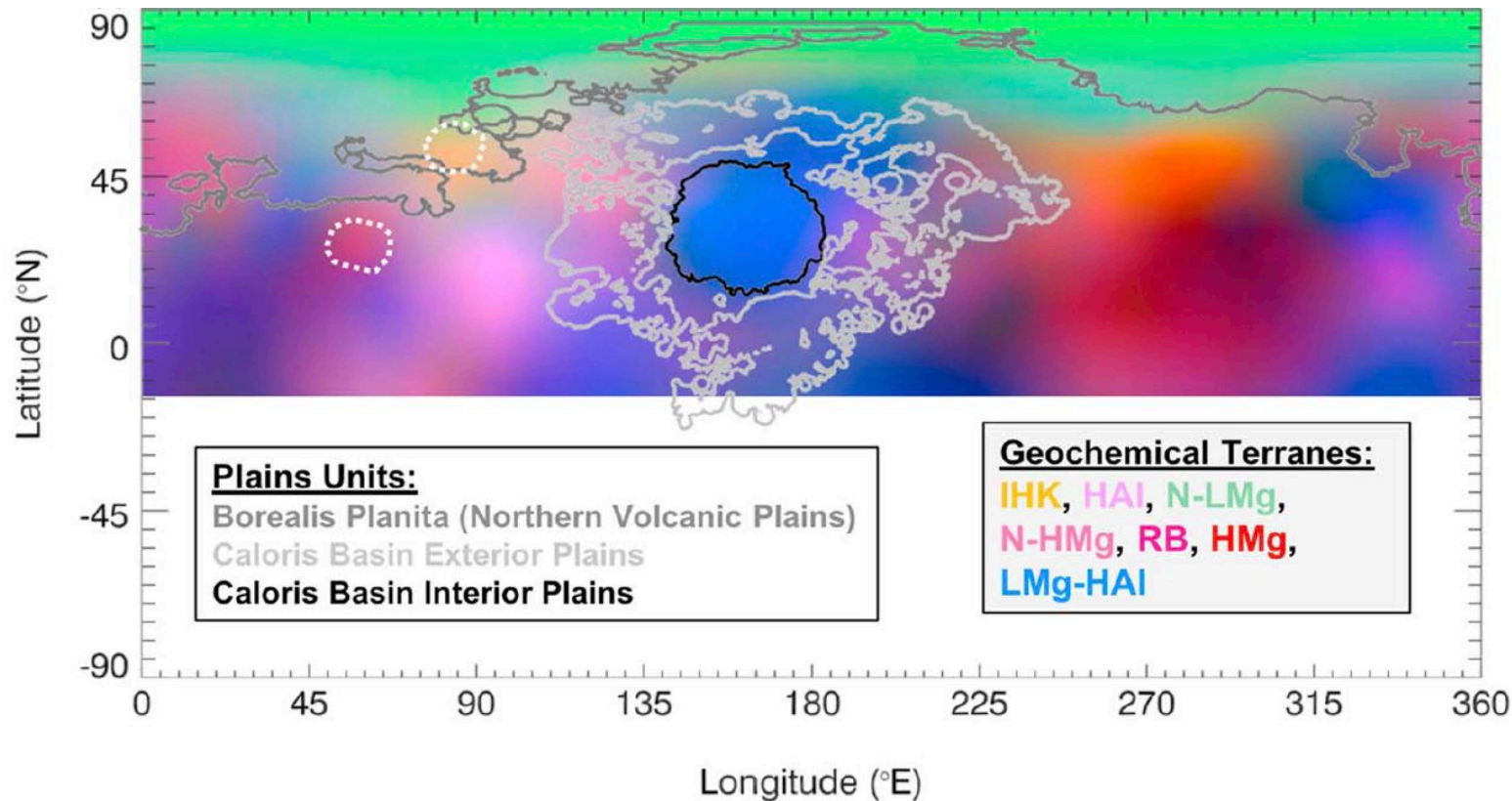


Major Geochemical Terranes of Mercury's Northern Hemisphere

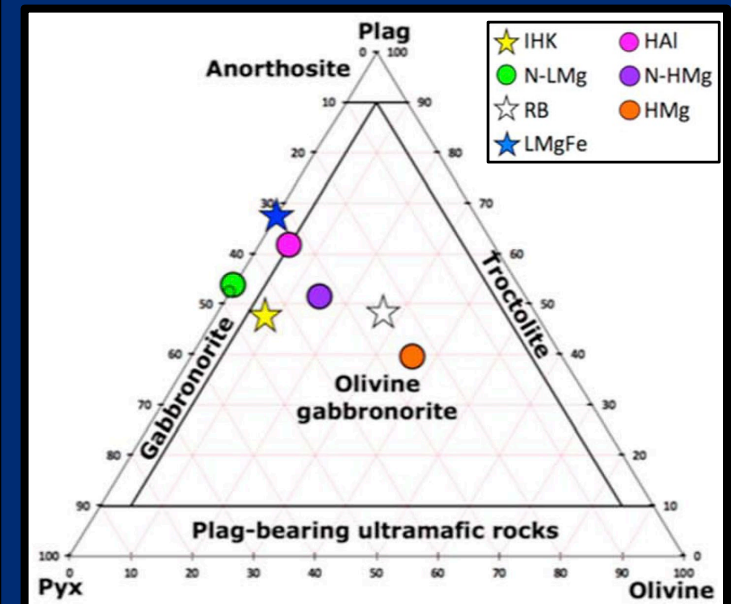
Principal Components Analysis (PCA) Map of Mercury's composition

Principal Component 1
Principal Component 2
Principal Component 3



PCA of Mercury composition maps identify diverse geochemical terranes, including a newly-identified terrane with high potassium (IHK).

Geochemical modeling of average terrane compositions reveals variability in mineralogy in these different geochemical terranes.



Although not mineralogically pure end-members, individual Principal Component maps are a measure of the relative variability of pyroxenes (PC1), plagioclase (PC2), and olivine (PC3).