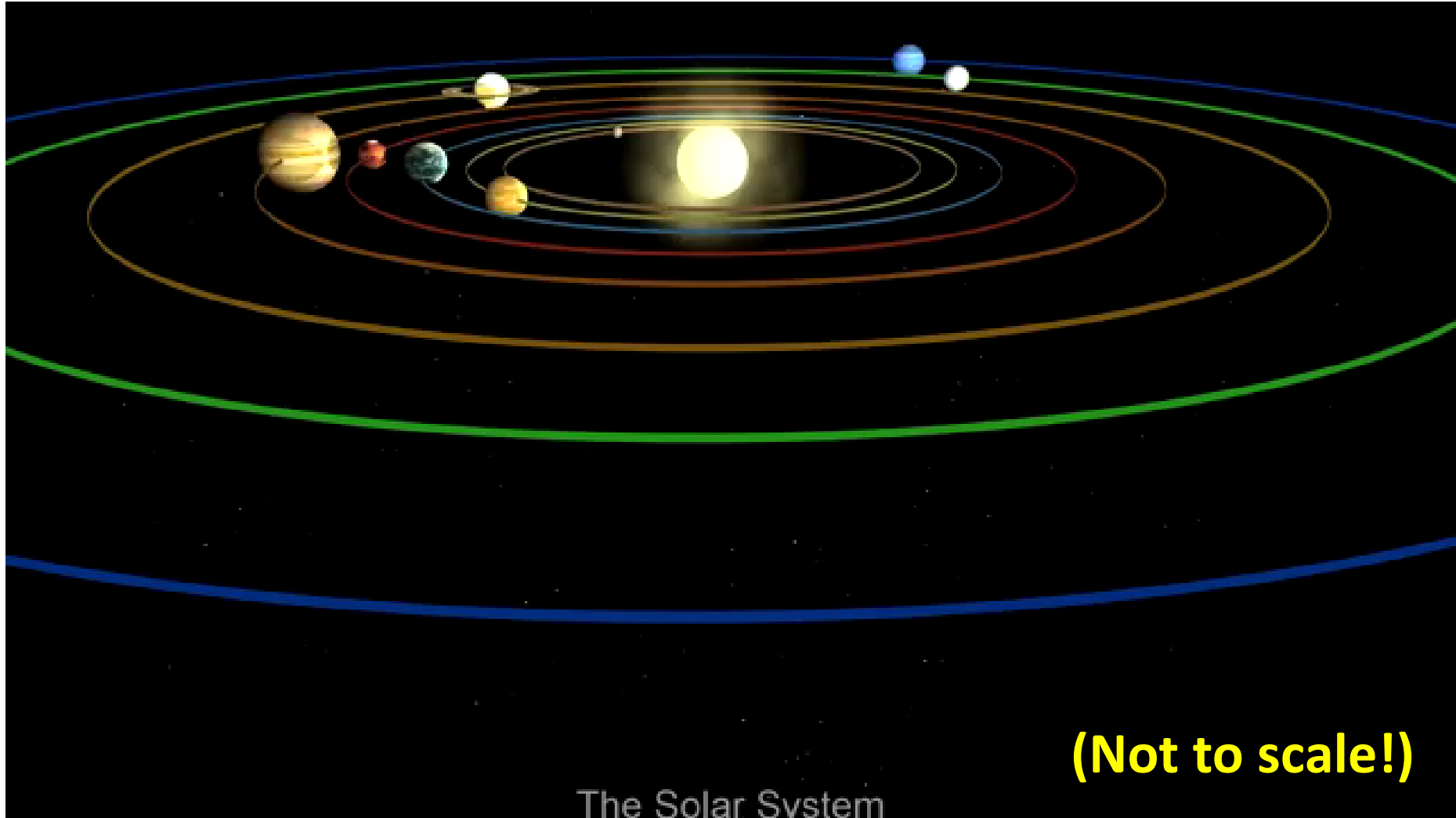


Solar System Part 2

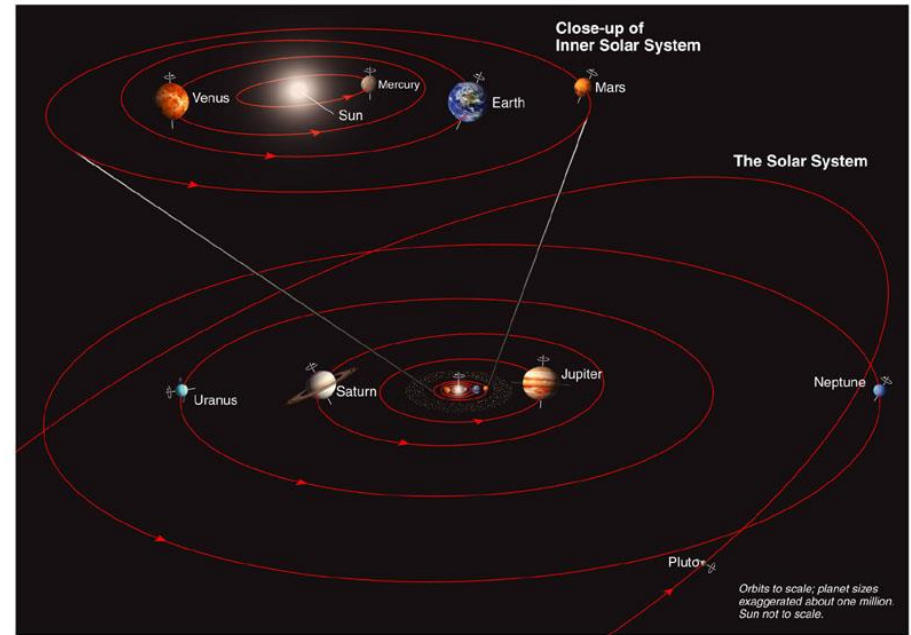
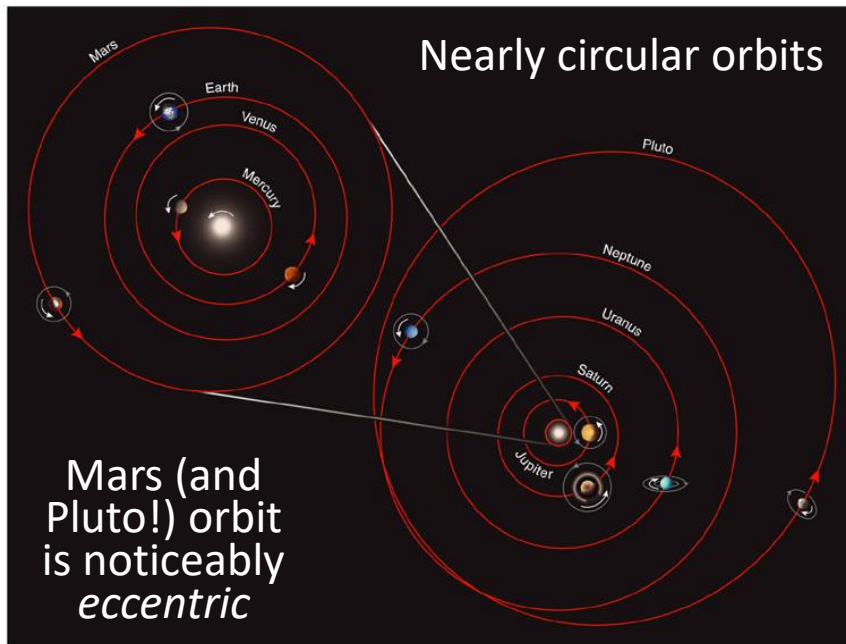


(Not to scale!)

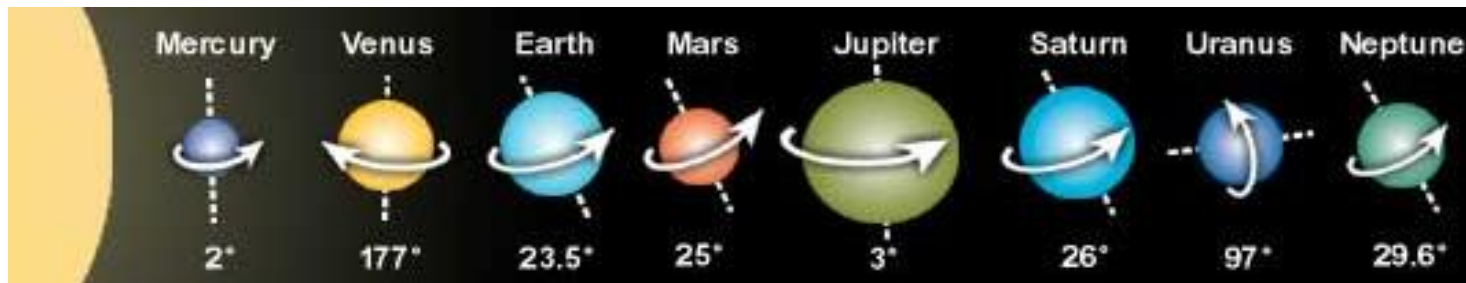
The Solar System

General Characteristics of Major Planets

All planets *revolve* in the same direction following nearly circular orbits, all within 10° of *ecliptics* - Earth's orbital plane.



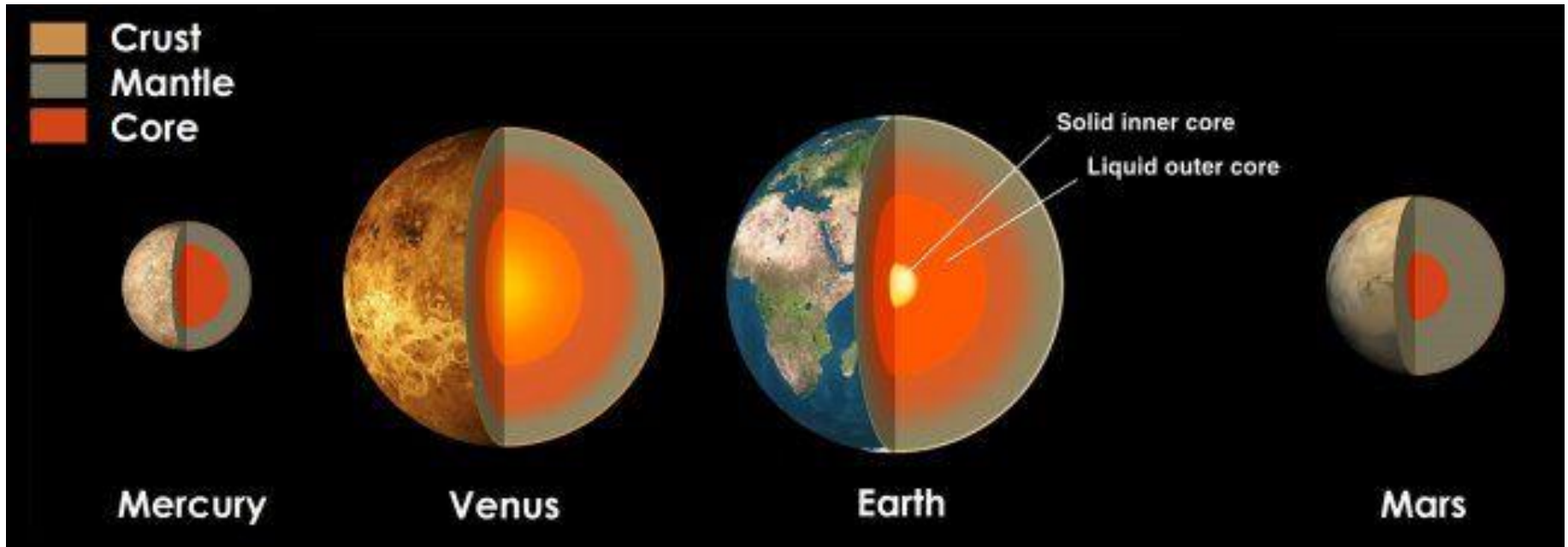
All **except Venus** *rotate* in the same direction.



All have various *tilts*.

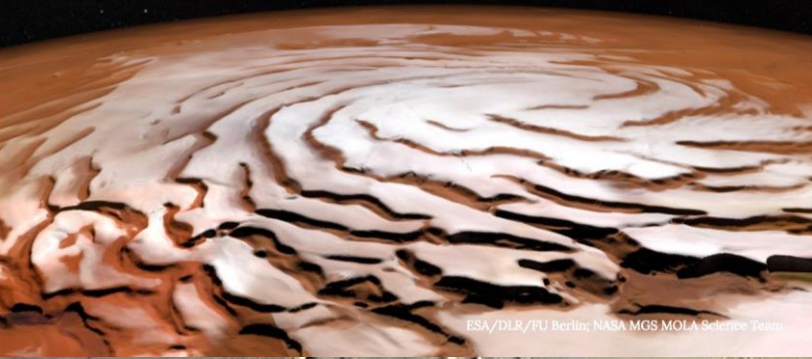
Inner (Terrestrial) Planets

The four “Earth-like” planets closest to the Sun that have a solid “rocky” planetary surface.

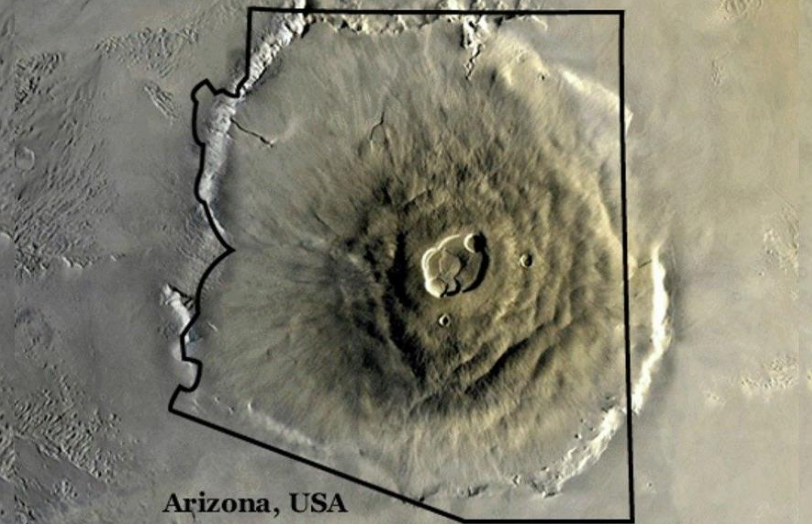


- Same basic type of structure, such as a central **metallic core** (mostly iron), with a surrounding **silicate mantle**.
- Possess **secondary atmospheres**, generated through volcanism or comet impacts after planet formation.

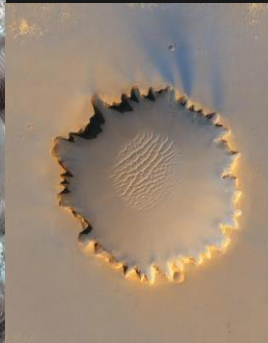
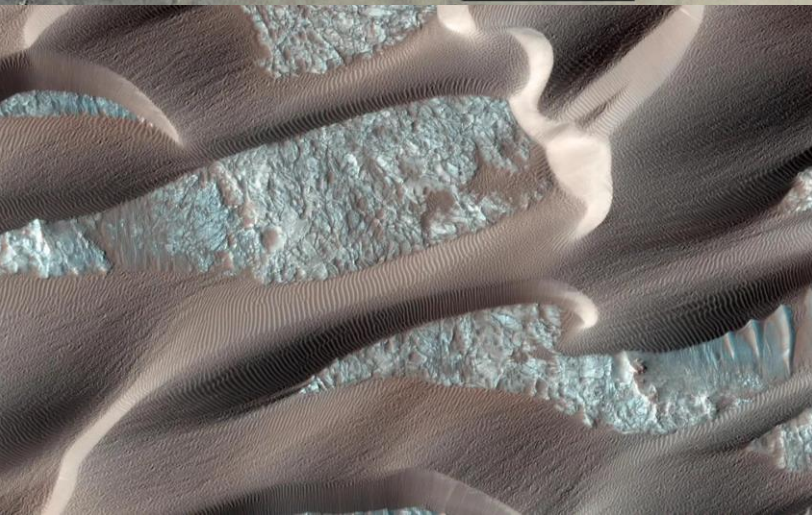
MARS



ESA/DLR/FU Berlin; NASA MGS MOLA Science Team

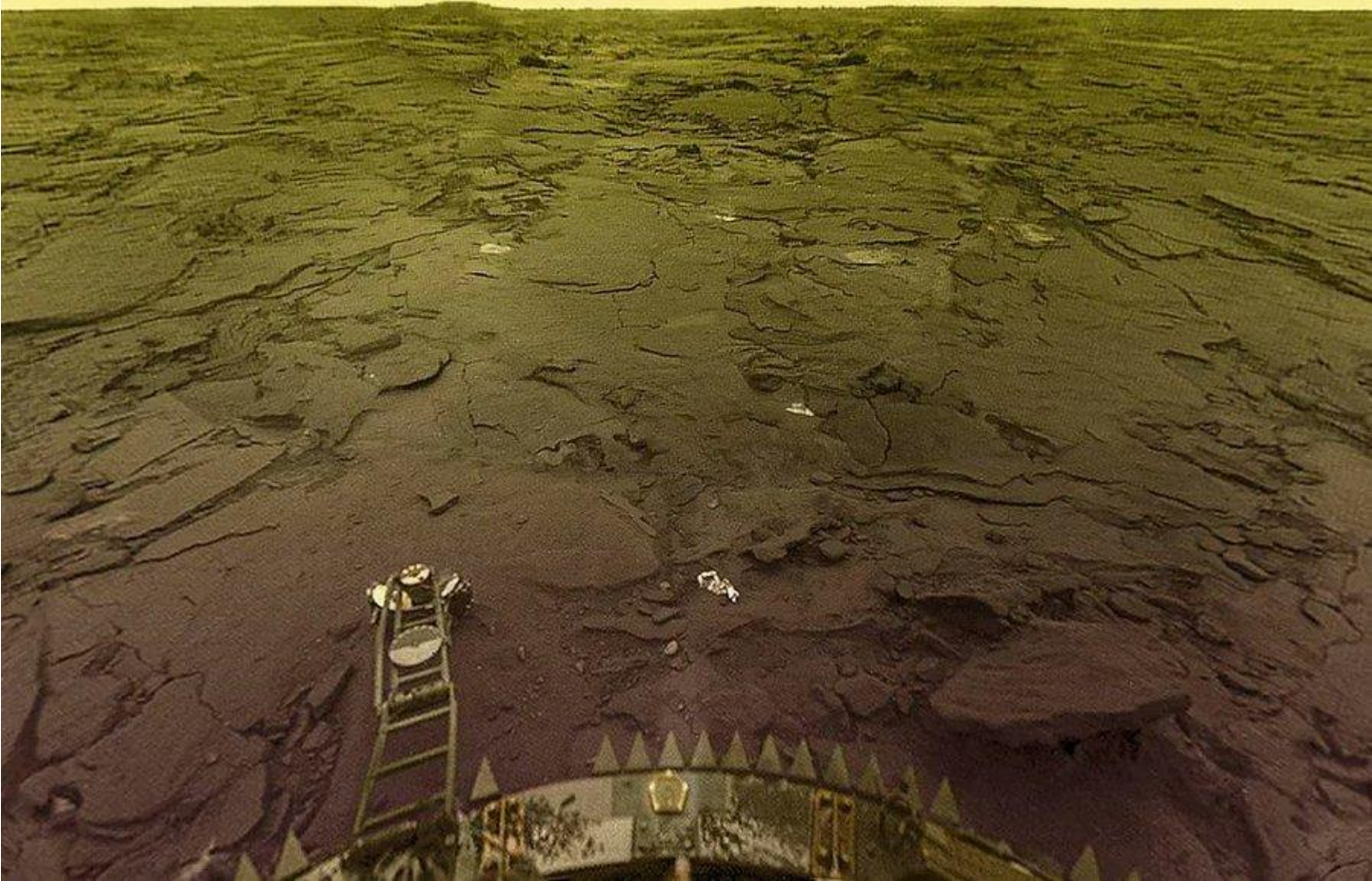


Arizona, USA



VENUS

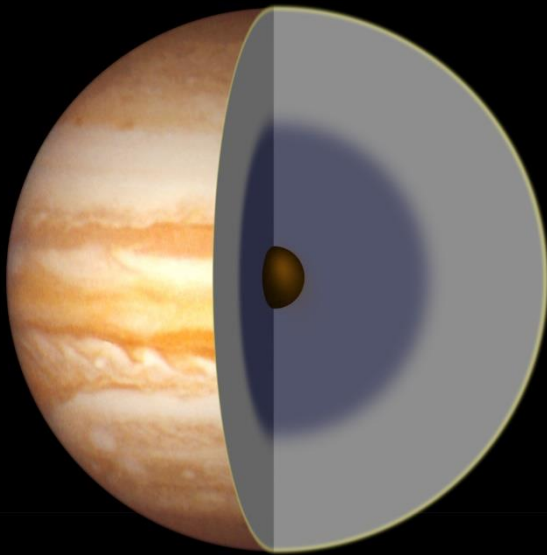
(one of just a few images we have of Venus surface – due to hot and acidic environment, all probes that ever landed disintegrated within an hour of landing!)



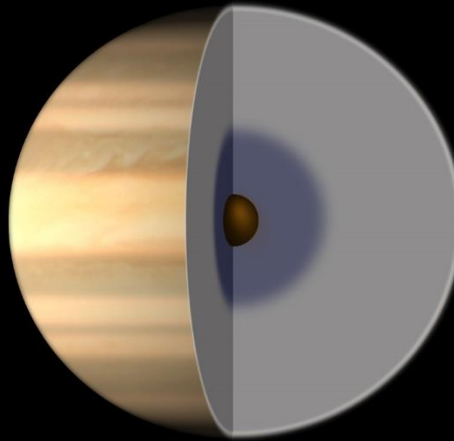
Outer (Jovian) Planets

Gas Giants

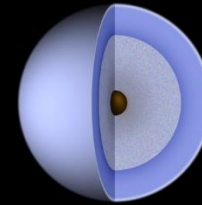
Ice Giants



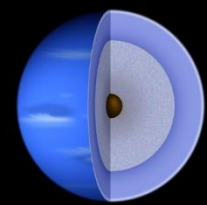
JUPITER



SATURN



URANUS



NEPTUNE

( EARTH
for comparison)

 Molecular hydrogen

 Metallic hydrogen

Primary (captured) atmosphere

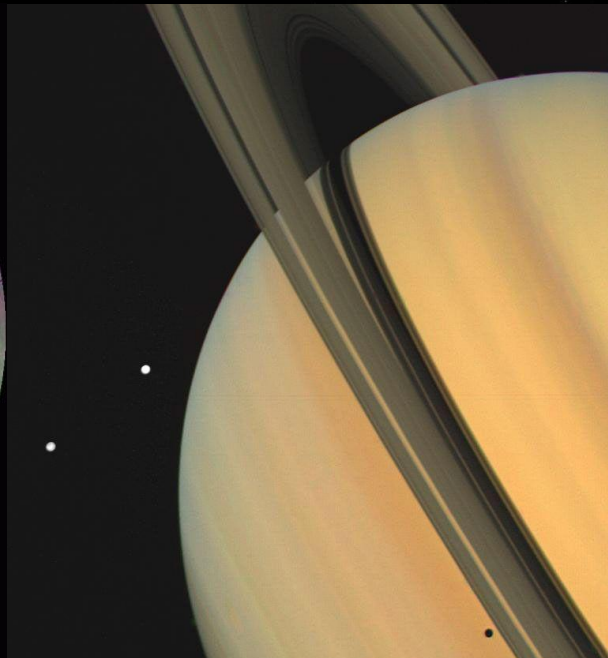
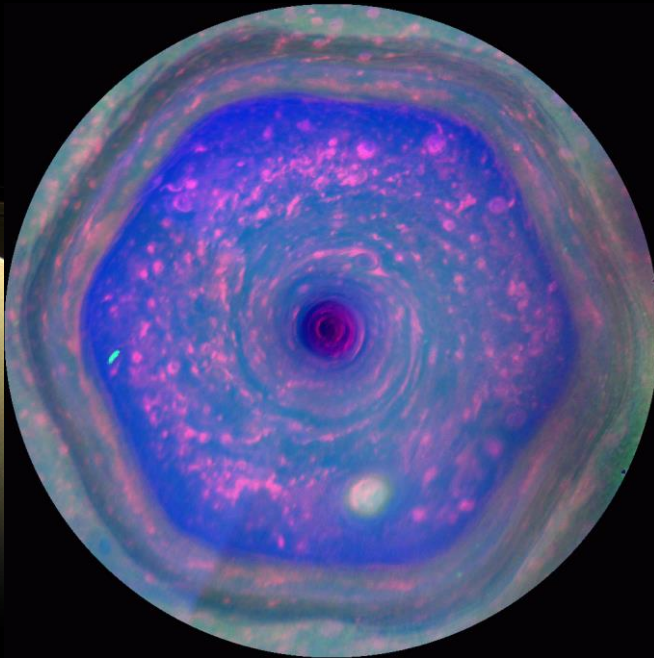
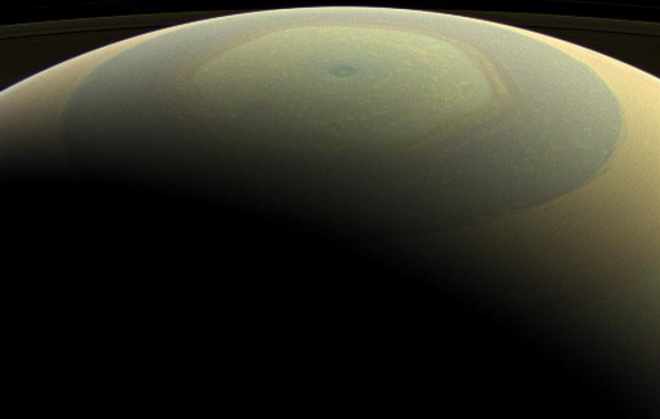
 Hydrogen, helium, methane gas

 Mantle (water, ammonia, methane ices)

 Core (rock, ice)



SATURN



JUPITER

