



www.eso.org

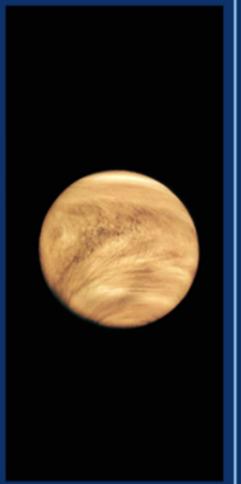


www.eaae-astro.org/

Summary Information Sheet

VENUS

Venus, named after the goddess of love and beauty, is the „sister“ planet of Earth, because their sizes, masses and densities are similar. But it is inhospitable, since this planet is surrounded by a thick, dense and acid atmosphere. It works like a greenhouse and produces high surface temperatures and makes telescope observations from Earth impossible.



No significant magnetic field

Retrograde rotation with a long period of 243 Earth days. Rotation axis is inclined by 177° to the plane of the ecliptic

Wind speeds in the upper atmosphere over 100m/s

Rock crust

Rock mantle

One revolution around the Sun lasts 224,70 Earth days

Core of molten iron-nickel

Pressure at the surface about 92 bar, temperature about 460°C

Active volcanoes

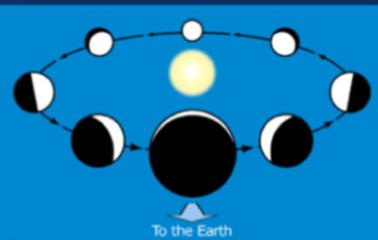
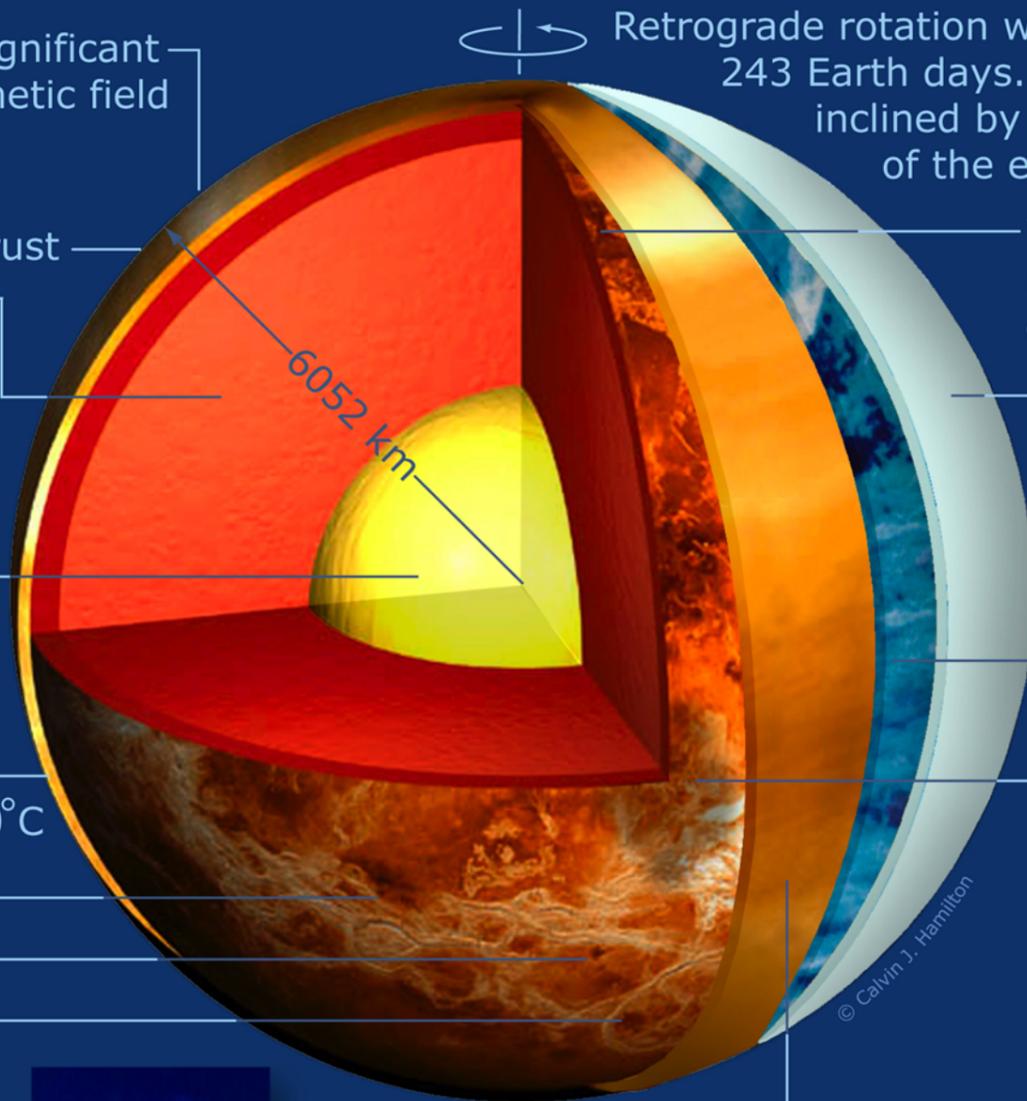
Impact craters

Coronae

Surface viewed from Earth shows no structure and has the highest albedo of all planets

Clouds 45-65 km altitude

Equatorial highland



Venus phases

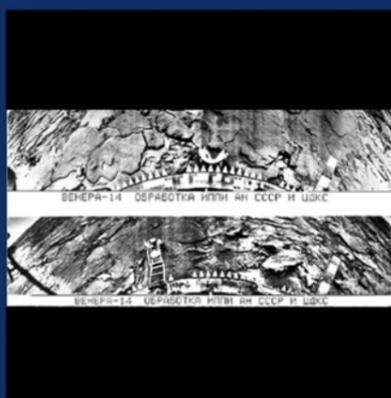


Venus from Earth

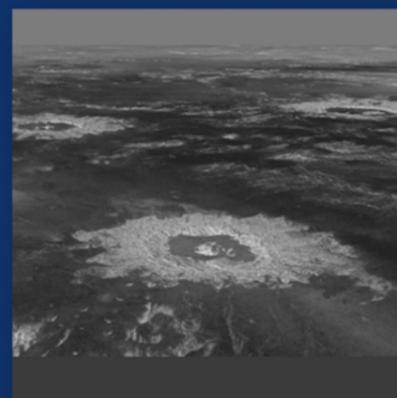
Dense atmosphere with sulphur dioxide clouds and greenhouse effect, composed of roughly 96,5% carbon dioxide and 3,5% nitrogen



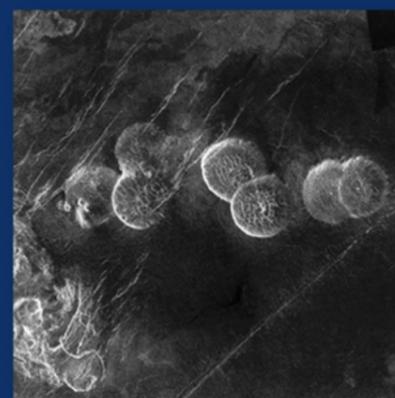
Cloud Structure



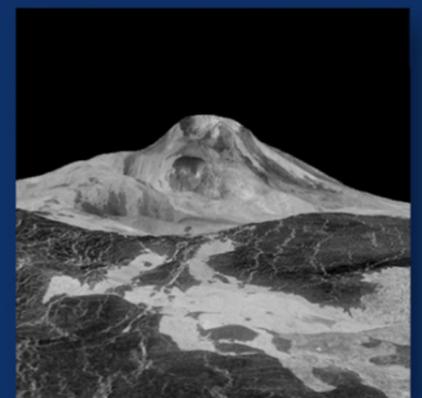
Surface close up



Impact Craters



Pancakes



Sif Mons Volcano

Physical Data

For comparison

Property	Venus	Earth	Mars
Distance from the Sun	108 million km	150 million km	228 million km
Rotation period	243 days	23 hrs 56 min	24 hrs 37 min
Equatorial radius	6052 km	6378 km	3397 km
Mass	4.87×10^{24} kg	5.97×10^{24} kg	6.42×10^{23} kg
Density	5240 kg/m ³	5520 kg/m ³	3940 kg/m ³

Images: ESO, ESA, NASA, except otherwise stated

Concept: B. Mackowiak