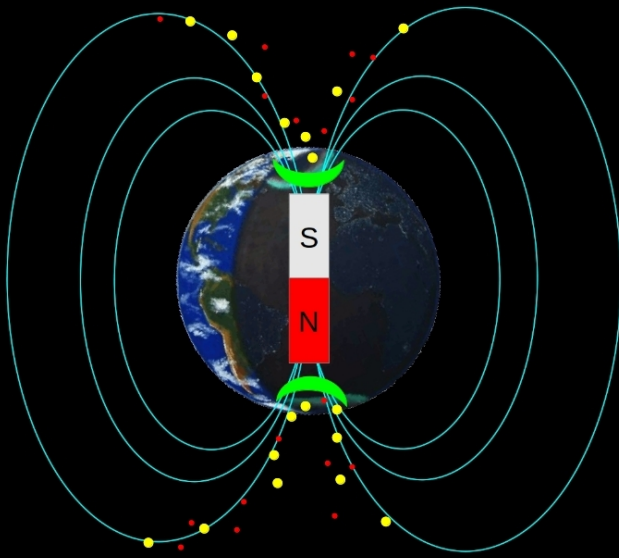
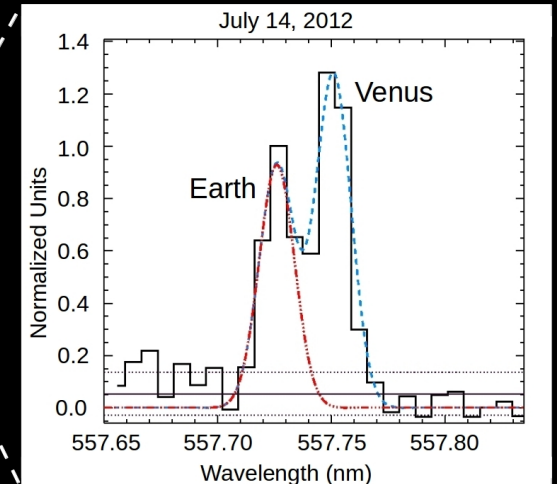
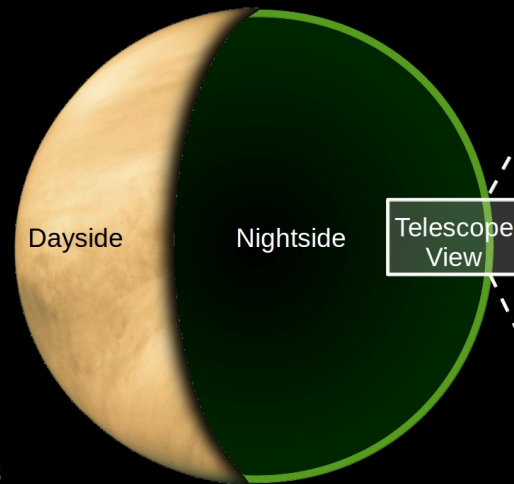


Venus's Mysterious "Aurora"

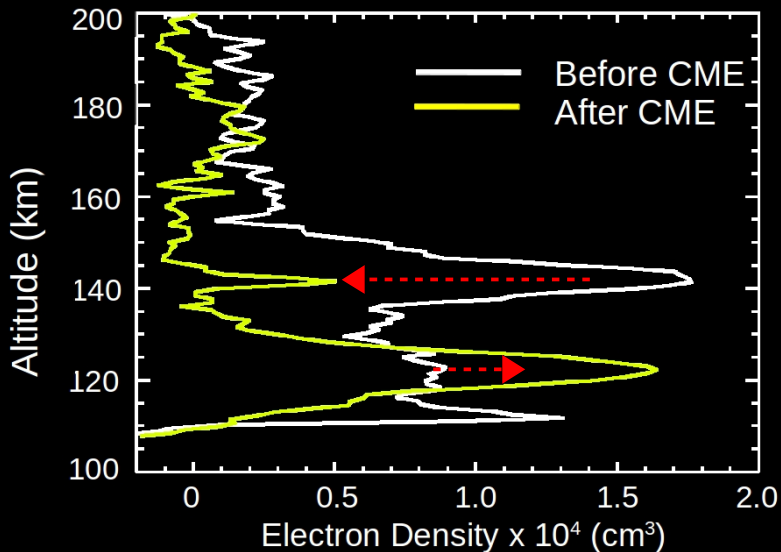
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- The Earth possesses a magnetic field which funnels solar charged particles to the poles, generating aurora.
- The brightest aurora on Earth is the oxygen green line at 5577 Å.



- Venus has no magnetic field and is not expected to possess aurora, but the green line is detected sporadically in the Venusian atmosphere.
- The greatest emission is observed after large injections of solar charged particles from coronal mass ejections (CMEs).



- Data from Venus Express Radio Science experiment show increased ionospheric electrons low in the ionosphere (120 km) after CME impacts.
- During this increase, green oxygen emission is detected.
- We propose this is auroral-type emission occurring low in the ionosphere, the first of its kind to be detected on a non-magnetic planet