

JUPITER AND JUNO

NASA's probe 'Juno', launched in 2011, entered orbit around Jupiter this week. Amongst other things, it's going to be investigating the planet's chemical composition. Here's what we know so far.

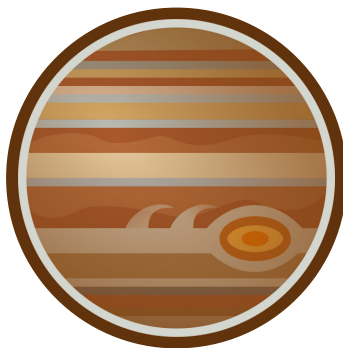
ATMOSPHERE

HYDROGEN 90%

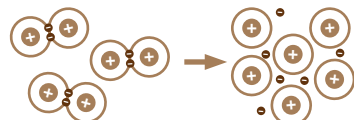
HELIUM ~10%

OTHER GASES <1%

Including CH_4 , NH_3 , C_2H_6 , H_2O



METALLIC HYDROGEN

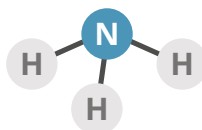


HYDROGEN GAS

METALLIC HYDROGEN

At the very high pressures in Jupiter, hydrogen is thought to develop metallic properties. This may be the source of Jupiter's magnetic field.

WHAT CAUSES THE COLOUR OF JUPITER'S GREAT RED SPOT?



AMMONIA



ACETYLENE



CYANIDE-LIKE MOLECULES

x, y and z vary

Scientists still aren't 100% sure what causes the Great Red Spot's colour. The most recent suggestion is that UV light from the sun causes ammonia and acetylene gases in the top layers of clouds to react, producing cyanide-like molecules. Previous suggestions implicated either sulfur or phosphine as the colour's cause.



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