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News & Comments

# Jupiter Grew Big and Strong by Eating Planets

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Jupiter has twice the mass of all other planets combined in our solar system because other planets have been eaten up by Jupiter.

NASA's Juno mission provided data for a new study to discover more about Jupiter's origins, which revealed that Jupiter's mysterious core is even more massive than previously thought.

Jupiter's formation can be explained by a few different scenarios. According to two widely held theories, Jupiter formed from swirling clouds of gas that imploded to create a dense centre - just as stars do - or from collisions of rock and ice that grew into planets.

The main problem here is no one knows what Jupiter's Core is made up of, and there is no way (yet) to find out the answer since we can't exactly land anything on it. In 2016, NASA's Juno spacecraft began taking images and logging data about Jupiter, but scientists are just starting to analyze the findings.

The former hypotheses about Jupiter's core were that it was 10% of the planet's total mass, but now it is expected to be around 30%. The scientists believed that it is because, Jupiter gobbled up baby planets, called planetesimals. It may have accumulated many smaller, dense cores, which is why it would end up with such a dense core. Another explanation is a possible crash with a giant rocky body that may have left a load of heavy metals behind.

Science Jupiter is thought of as the most influential planet in the formation of the solar system, so this study will add to the understanding of how gas giants form and, perhaps, how they prevent other potential planets from forming.

**KEYWORDS**

Jupiter, planets, solar system, earth, New Planet, By Jupiter, Planet, Juno mission, Jupiter, planetary formation, Jupiter, Jupiter's atmosphere, metallicity, metals, planet formation