The origin and evolution of Jupiter

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It is argued that Jupiter was originally formed by the collisional accretion process in a dusty medium (around the Sun) as a planet with mass $\simeq 10 M_E$ where M_E is the Earth's mass. Starting with this mass, the planet has been slowly accreting gas, dust rocks, etc. from the ISM since its formation approximately $4,5.10^9$ yr ago. An average accretion rate of approximately $7.10^{-8} M_E/yr$ could have resulted in the transformation of the "original" planet into an object of mass 318 M_E (Jupiter's current mass). The "original Jupiter " is now a part of the planet's core which has a mass $\simeq 20 M_E$. The atmosphere of the present Jupiter is unlikely to be of primordial origin; it was most probably formed by accretion during the last 1.10^{-6} yr. Observational evidence in support of the "young atmosphere" hypothesis is discussed. Comments are made on the redevance of the Kant-Laplace hypothesis for the formation of the Soalr System and it is proposed that the planetary formation processes most probably came into play **after** the Sun had settled down on the hydrogen-burning main sequence.