

The Solar System[d] is the gravitationally bound system of the Sun and the objects that orbit it.[11] It formed about 4.6 billion years ago when a dense region of a molecular cloud collapsed, forming the Sun and a protoplanetary disc. The Sun is a typical star that maintains a balanced equilibrium by the fusion of hydrogen into helium at its core, releasing this energy from its outer photosphere. Astronomers classify it as a G-type main-sequence star.