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Origins: From the Protosun to the First Steps of Life

This comprehensive collection of reviews and research reports covers the processes involved in the formation of the Sun and Earth-like planets. Specific topics range from star formation to protoplanetary disks, planet formation, and the basics of life. It provides an interdisciplinary overview of the complex chain of events leading to habitable planets and life, covering research from the fields of astrophysics, astrochemistry, planetary sciences, chemistry, and biology, through theory, observations, and experiments. These observations reveal the chemistry and dust content of young disks, the location of water that is essential to life, and some of the dynamical processes that affect the growth of forming planets. IAU Symposium 345 reviews some of the most modern concepts in star and planet formation and is essential reading for students, teachers, and researchers who will someday answer humanity's biggest question: what is our origin?

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