## Stellar Birth Versus Stellar Metamorphosis

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Abstract: The enthalpy of stars rises and falls on the whole depending on whether it is being born or undergoing metamorphosis. These differences can be generalized via basic thermodynamic phase transitions.

During metamorphosis the star exhibits mostly exothermic reactions. They are known as deposition, recombination, condensation and solidification. During stellar birth the material comprising the cloud needs to exhibit mostly endothermic reactions. They are known as ionization, melting, vaporization and sublimation. In other words as the star is born the material absorbs large amounts of heat as the enthalpy increases, and as the star undergoes metamorphosis it then releases this heat from its birthing. This means the energy for star birth and metamorphosis was provided by another process outside of the star. Therefore the star is not internally powered or even powered at all, it is a dissipative event from another larger event during its birthing. It is losing enthalpy.