

The Young Massive Star Environment

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Abstract. Molecular cloud cores - whether stellar, non-stellar, proto-stellar, or pre-proto-stellar - have come to be recognized as key elements in the study of star formation. For both high and low mass stars, these cores hold key information for the final make-up of the stellar cluster and the physical processes by which the cluster and/or the individual stars form. In the case of massive stars, the chemical effects extend even beyond the molecular core, reaching further into the cloud in the form of a photo-dissociation region. A wealth of phenomena occur within these cores and PDRs, governed by dynamical, radiative, and chemical processes. Particularly for massive star formation, the ecology of the environment becomes quite complex. We discuss the directions in which molecular core studies are taking us, with special attention given to those aspects which are unique to high-mass star-forming regions.

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