Spectral Evolution of Young Stellar Objects in Giant Molecular Clouds

In-Ok Song and Kyung-Won Suh

Dept. of Astronomy and Space Science Chungbuk National University

We have modeled the observed spectral energy distributions (SEDs) of Young Stellar Objects (YSOs) in giant molecular clouds (GMCs). We propose theoretical evolution models of the SEDs using the model parameters which are the radiation properties of the central stars and the physical structure and chemical composition of the dust envelopes. YSOs in GMCs may share the same chemical composition. This is a crucial advantage for the other parameters to be found from the modelling. The model results and the observations of YSOs in GMCs are compared on detailed SEDs and IRAS color-color diagrams.