

$> 30^\circ$  there are several faint extensions and clouds with a large predominance of negative V.

For both the WNM and the CNM there is a notorious asymmetry between both galactic hemispheres. We suggest a scenario for the formation and evolution of the Gould belt system of stars and gas on the basis of an explosive event. The scenario is consistent with several observational facts like Danly's (1989) optical and *UV* observations of interstellar cool gas.

#### SOME REFINEMENTS IN CHEMICAL EVOLUTION MODELS. II. A ONE-ZONE MODEL WITH REFUSES

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We present, for the one-zone chemical evolution model of the solar neighborhood, a formalism which takes into consideration a classification of galactic objects into three families, according to their condensation state: stars, *refuses* and gas. We define star as every condensed object with mass greater or equal to the minimum mass which ignites hydrogen and which will give rise to a track in the HR diagram on the left side of Hayashi's limit; the refuses can be separated in two subclasses: the remnants (compact objects resulting from stellar death) and the residues (objects whose mass is not large enough to ignite hydrogen); we define gas as the mass which can be condensed to form stars or residues. Under the sudden mass loss approximation, we developed equations for the mass evolution of each family. We have studied the metallicity distribution of our model, for the instantaneous recycling approximation, adopting several initial conditions. In order to constrain the model parameters we have also used preliminary evaluations of comet cloud masses based on Tinsley & Cameron (1974, *Ap&SS*, 31, 31) and Vanýsek (1987, 10<sup>th</sup> IAU European Regional Meeting, 279).

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#### KINEMATICS OF THE IONIZED HYDROGEN IN THE SMALL MAGELLANIC CLOUD

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By means of a scanning Fabry-Pérot interferometer we have completed an  $H\alpha$  kinematical survey of the Small Magellanic Cloud (SMC). This survey has allowed us the elaboration of a catalogue of H II regions in the SMC. This catalogue reports radial velocities, velocity dispersions and  $H\alpha$  fluxes of the totality of emission nebulae catalogued by Davies, Elliott, & Meaburn (1976, *MNRAS*, 81, 89) in the SMC. Furthermore, we have detected nebulosities much fainter than those catalogued by these authors. We present the mean radial velocity field of this galaxy which allows the study of the kinematics of the ionized hydrogen and will help in the comprehension of the complicated structure of the SMC. On the other hand, the use of scanning Fabry-Pérot interferometers reveals to be an interesting tool for the detection of shocks in the interstellar medium of nearby galaxies. We discuss briefly this method of detection for the case of the SMC.

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#### MOLECULAR CLOUDS IN THE SMC

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Observations of the  $^{12}\text{CO}(1-0)$  emission line from the Small Magellanic Cloud (SMC) have been done during the last four years with the 15-m SEST telescope as part of the ESO-Swedish SEST Key Programme: CO in the Magellanic Clouds. Two areas in the SW region of the SMC have been fully mapped with half-beam ( $20'' = 6.1$  pc) sampling. These areas correspond to the SW-1 and SW-2 regions of Rubio et al. (1991) and the observations cover about  $5 \times 8$  and  $5 \times 10$  arcmin<sup>2</sup>, respectively. The CO emission has been detected only in the lower (i.e., nearer) velocity component of this galaxy. The CO clouds appear associated to dark clouds: some are associated with H II regions and with far-infrared sources. The spatial and velocity distribution of the CO is complex showing structures in all scales and large-scale velocity gradients. In