STAR FORMATION IN THE BRIGHT RIMMED GLOBULE IC1396N

C. Codella, P. Saraceno Istituto di Fisica dello Spazio Interplanetario, CNR, Area di Ricerca Tor Vergata, Via Fosso del Cavaliere 100, 00133 Roma, Italy

R. Bachiller Observatorio Astronómico Nacional (IGN), Apartado 1143, E-28800, Alcalá de Henares (Madrid), Spain

B. Nisini Osservatorio Astronomico di Roma, 00040 Monteporzio Catone (Roma), Italy

The bright rimmed globule IC1396N has been investigated through a multiline survey at mm-wavelengths. In order to probe a wide range of physical conditions, emission due to CO, CS, DCO⁺ and SiO has been observed. The present results, combined with previous ISO observations, allow to study how the presence of massive stars can affect the structure of the dense molecular clouds in the surroundings triggering the process of star formation. The occurrence of several bipolar molecular outflows and dense cores shows a quite complex scenario indicating that IC1396N hosts different regions where the star forming process is running. The results call for high angular and spectral resolution observations at submillimetre and infrared wavelengths tracing high excitation conditions throughout the globule making IC1396N an ideal target for the future FIRST mission.