

The gaseous final configuration depends essentially on the angular velocity of the bar and on the number of resonances in the disk. Nuclear rings form at the inner Lindblad resonances when the bar velocity is low. In this case, the molecular component is highly concentrated and star formation is enhanced in the inner parts of the galaxy. This could explain the rings of hot spots seen in many barred galaxies. Recent observations of galaxies in CO with high resolution reveal a barred distribution consistent with these results (cf. IC 342 Lo *et al.* 1984, Hayashi *et al.* 1987, M83 Handa *et al.* 1987, NGC 6946 Ball *et al.* 1985, M82 Nakai *et al.* 1987, Lo *et al.* 1987).

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ANEMIC GALAXIES: EVIDENCE FOR A THRESHOLD IN STAR FORMATION PROCESSES

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From a sample of Virgo Cluster and "field" disk galaxies, it is shown that a critical value of the HI surface density discriminates between RDDO anemic and "healthy" spirals. Below this threshold, at least massive stars do not form any more and the galaxy gets the anemic appearance. The influence of the HI content on the global star formation rate is discussed in the context of present models (Elmegreen 1979, Seiden and Gerola 1979, Dopita 1985), as well as the fate of disks in cluster and "field" environments. The existence of this threshold is an issue for the problem caused by the short gas consumption time scales derived from the observations of spiral galaxies.