Let $G = (V, E)$ be a multigraph. The cover index $\chi_c(G)$ of $G$ is the greatest integer $k$ for which there is a coloring of $E$ with $k$ colors such that each vertex of $G$ is incident with at least one edge of each color. Let $\delta(G)$ be the minimum degree of $G$ and let $\Gamma_c(G)$ be the co-density of $G$, defined by

$$\Gamma_c(G) = \min \left\{ \frac{2|E^+(U)|}{|U| + 1} : U \subseteq V, |U| \geq 3 \text{ and odd} \right\},$$

where $E^+(U)$ is the set of all edges of $G$ with at least one end in $U$. Clearly, $\chi_c(G) \leq \min\{\delta(G), \Gamma_c(G)\}$. In 1978 Gupta proposed the following co-density conjecture: Every multigraph $G$ satisfies $\chi_c(G) \geq \min\{\delta(G) - 1, \lfloor \Gamma_c(G) \rfloor \}$, which is the dual version of the Goldberg-Seymour conjecture on edge-colorings of multigraphs. In this talk we discuss a partial result towards this conjecture saying that $\chi_c(G) \geq \min\{\delta(G) - 2, \lfloor \Gamma_c(G) \rfloor - 1\}$. (Received July 12, 2019)