1003-35-1265 **Hai Dang** and **Ratnasingham Shivaji*** (`shivaji@ra.msstate.edu`), Department of Mathematics, Mississippi State University, Mississippi State, MS 39762. .

We consider the system

$$-\Delta u = \lambda f(v); \ x \in \Omega$$

$$-\Delta v = \mu g(u); \ x \in \Omega$$

$$u = 0 = v; \ x \in \partial\Omega,$$

where Ω is a ball in $R^N, N \geq 1$ and $\partial\Omega$ is its boundary, λ, μ are positive parameters, and f, g are smooth functions that are negative at the origin and $f(x) \sim x^p$ and $g(x) \sim x^q$ for large x for some $p, q > 0$ with $pq < 1$. We establish the uniqueness of positive solutions when the parameters λ and μ are large.

(Received October 04, 2004)