998-35-129 **Eun Heui Kim*** (`ekim4@csulb.edu`), California State University at Long Beach, Department of Mathematics, Long Beach, CA 90808. *A class of singular Gierer-Meinhardt systems of elliptic boundary value problems.*

We present existence results for singular Gierer-Meinhardt elliptic systems with zero Dirichlet boundary conditions. With the different range of growth rates of the source term, we use the Schauder fixed point theorem and upper-lower solution methods to obtain the existence results. We also discuss boundary estimates for certain singularities. (Received February 20, 2004)