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Shanshan Chen and **Junping Shi*** (jxshix@wm.edu), Department of Mathematics, College of William and Mary, Williamsburg, VA 23187. *Gierer–Meinhardt system with activator production saturation and gene expression time delays.*

Gierer–Meinhardt reaction-diffusion system is one of prototypical models for spatial-temporal pattern formation. The dynamics of Gierer–Meinhardt system with activator production saturation and gene expression time delays is considered here. We analyze (i) bifurcation and pattern formation of non-delay model; (ii) global asymptotic stability for large saturation coefficient; (iii) delay-induced oscillations. (Received September 07, 2014)