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Patcharin Tragoonsirisak* (tragoonsirisakp@fvsu.edu), Department of Mathematics and Computer Sci., Fort Valley State University, Fort Valley, GA 31030. *A quenching problem due to a concentrated nonlinear source in an infinite strip.*

This article studies in an infinite-strip, a semilinear parabolic first initial-boundary value problem with a concentrated nonlinear source. Criteria for global existence of the solution and for quenching are investigated. (Received September 12, 2010)