962-35-701 **C. Y. Chan** (chan@louisiana.edu), Department of Mathematics, University of Louisiana at Lafayette, Lafayette, LA 70504-1010, and **Nadejda E. Dyakevich*** (ned4821@louisiana.edu), Department of Mathematics, University of Louisiana at Lafayette, Lafayette, LA 70504-1010.

Complete blow-up of solutions for quasilinear parabolic problems.

Let $T \leq \infty$, D be a bounded domain in $\mathbb{R}^n$ with boundary ∂D, x_0 be an arbitrarily fixed point in D, $\Omega = D \times (0, T)$, and $S = \partial D \times (0, T)$. This article considers the following quasilinear parabolic initial-boundary value problem:

$$u_t = \Delta g(u) + f(u(x_0, t)) \text{ in } \Omega,$$

$$u(x, 0) = u_0(x) \geq 0 \text{ in } \bar{D},$$

$$u(x, t) = 0 \text{ on } S.$$

The complete blow-up of u in a finite time is studied. (Received September 22, 2000)