# Cahn-Hilliard Equation with Regularization Term

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We will study in this article the nonlinear Cahn-Hilliard equation with proliferation and regularization terms with regular and logarithmic potentials. First, we consider the regular potential case, we show that the solutions blow up in finite time or exist globally in time. Furthermore, we prove that the model possess a global attractor. In addition, we construct a robust family of exponential attractors, *i.e.* attractors which are continuous with respect to the perturbation parameter. In the second part, we consider the logarithmic potential case and show the existence of a global solution.