Spinodal decomposition: coarsening of morphological patterns [psl5]

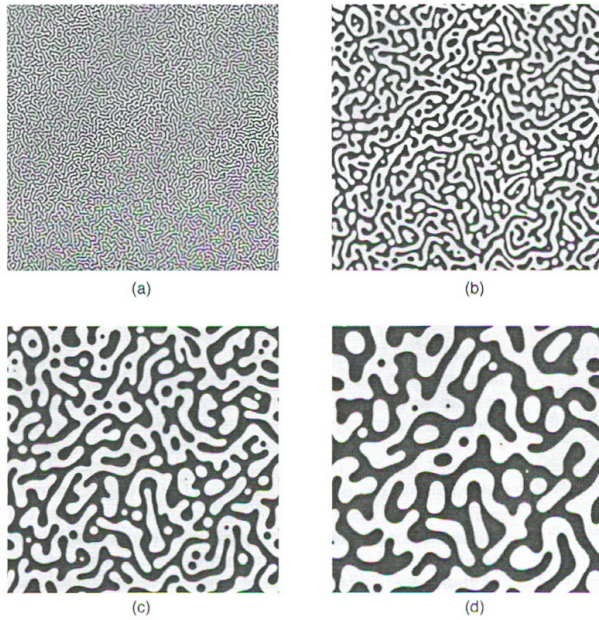## Computation: nonlinear Cahn-Hilliard kinetics

FIG. 1. Morphological patterns during spinodal decomposition and subsequent coarsening for bulk-diffusion-controlled dynamics: (a) $t = 100$, (b) $t = 2000$, (c) $t = 10\,000$, (d) $t = 30\,000$.

[from J. Zhu et al. Phys. Rev. E **60**, 3564 (1999)]

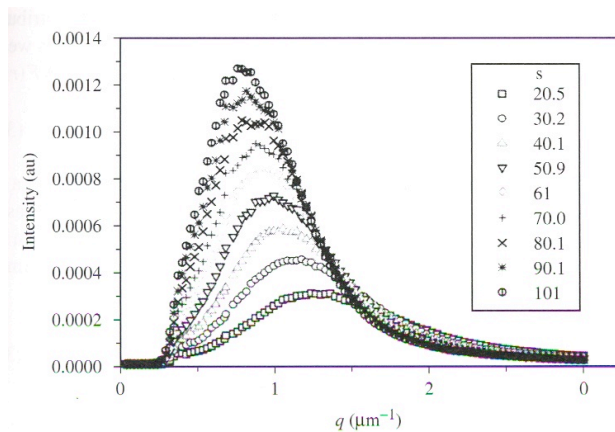## Experiment: Light scattering on polymer mixture

Fig. **3.10** Light-scattering curves from a polymer mixture quenched into the unstable region of the phase diagram, showing the maximum in intensity at q_{max} characteristic of spinodal decomposition. q_{max} moves to smaller values at longer annealing times, owing to non-linear coarsening effects. Graph courtesy of B. Jung.

[from Jones 2002]