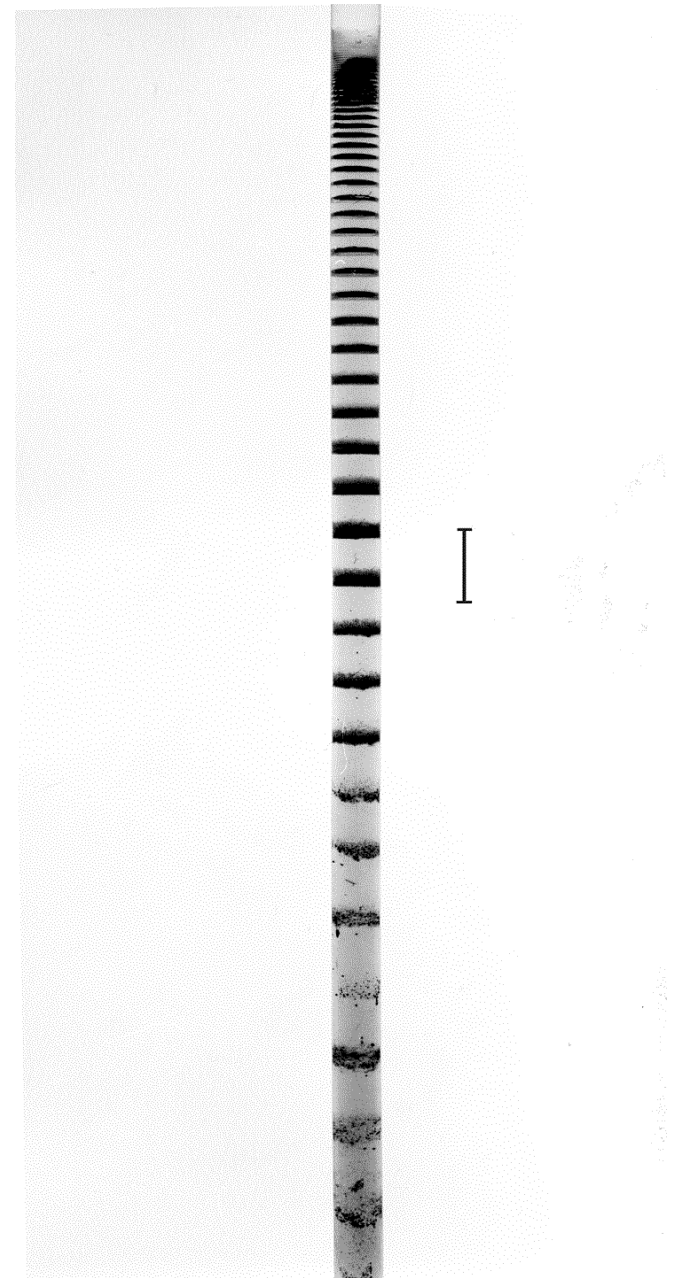


$\text{NH}_4\text{OH}$	$\text{MgSO}_4$
------------------------	-----------------

1. Ostwald - Prager

2. Turing Instability



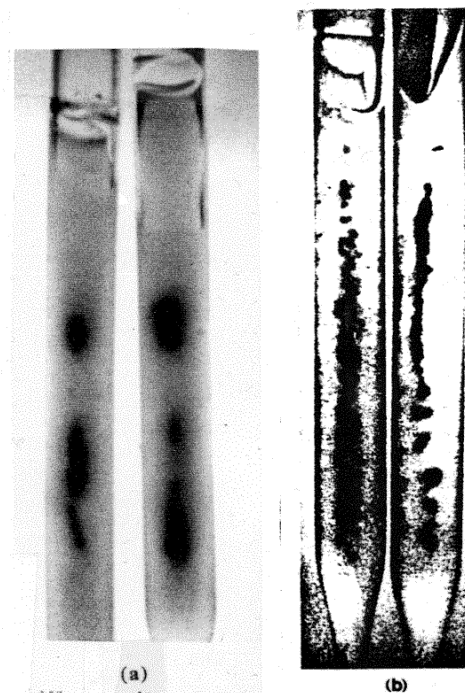
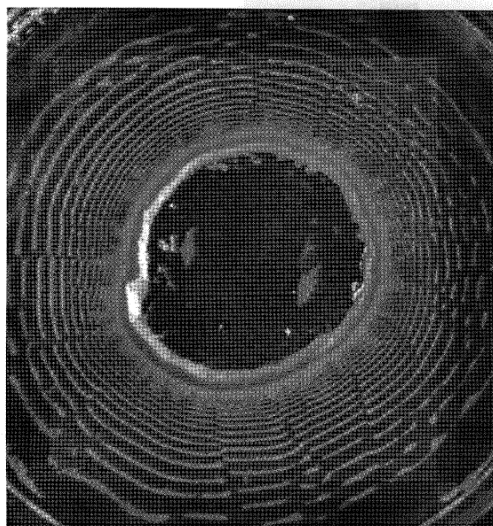


FIG. 4. Inhomogeneous macroscopic structures formed from initially homogeneous lead iodide sols of type E' (a) and F (b), see Table I. Note reproducibility of pattern for a given type of sol.

Initial  
[Pb(NO<sub>3</sub>)<sub>2</sub>]= 4.53 mM

Initial  
[Pb(NO<sub>3</sub>)<sub>2</sub>]= 9.06 mM

Initial Concentration of KI solution: 18.07 mM

B010

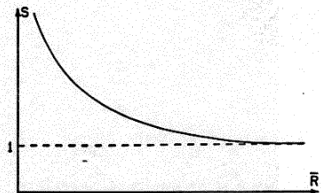


FIG. 1. The decline of the "equilibrium" supersaturation ratio with the growth of the average crystal size.

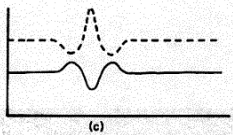
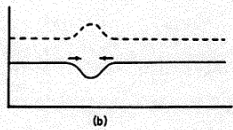
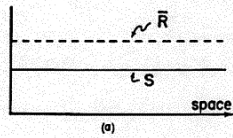
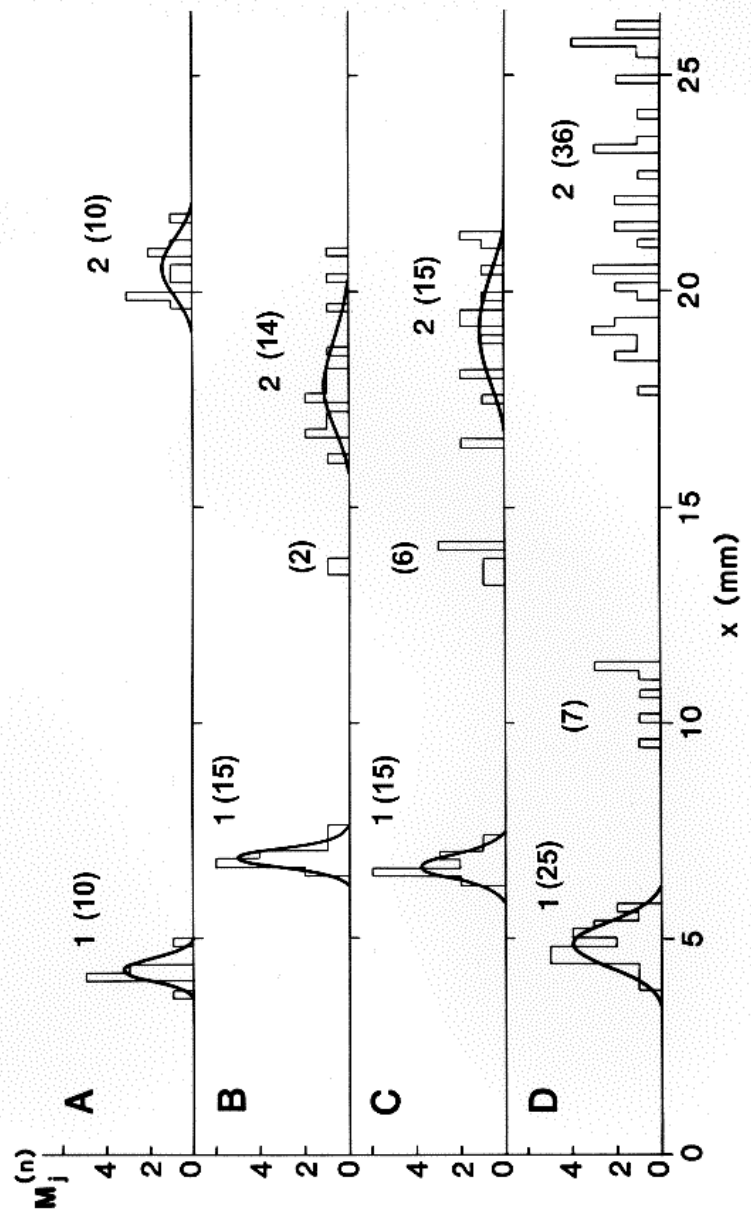
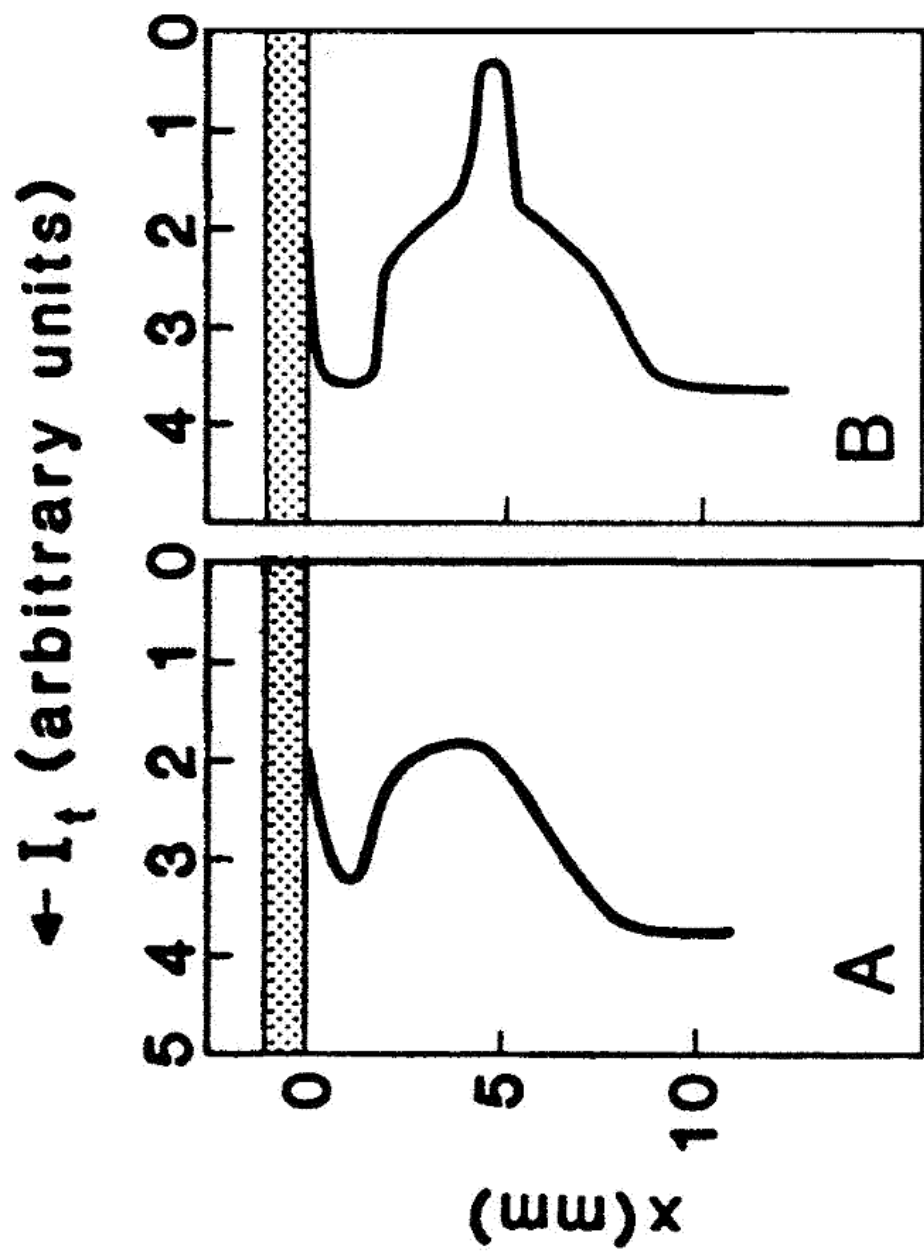
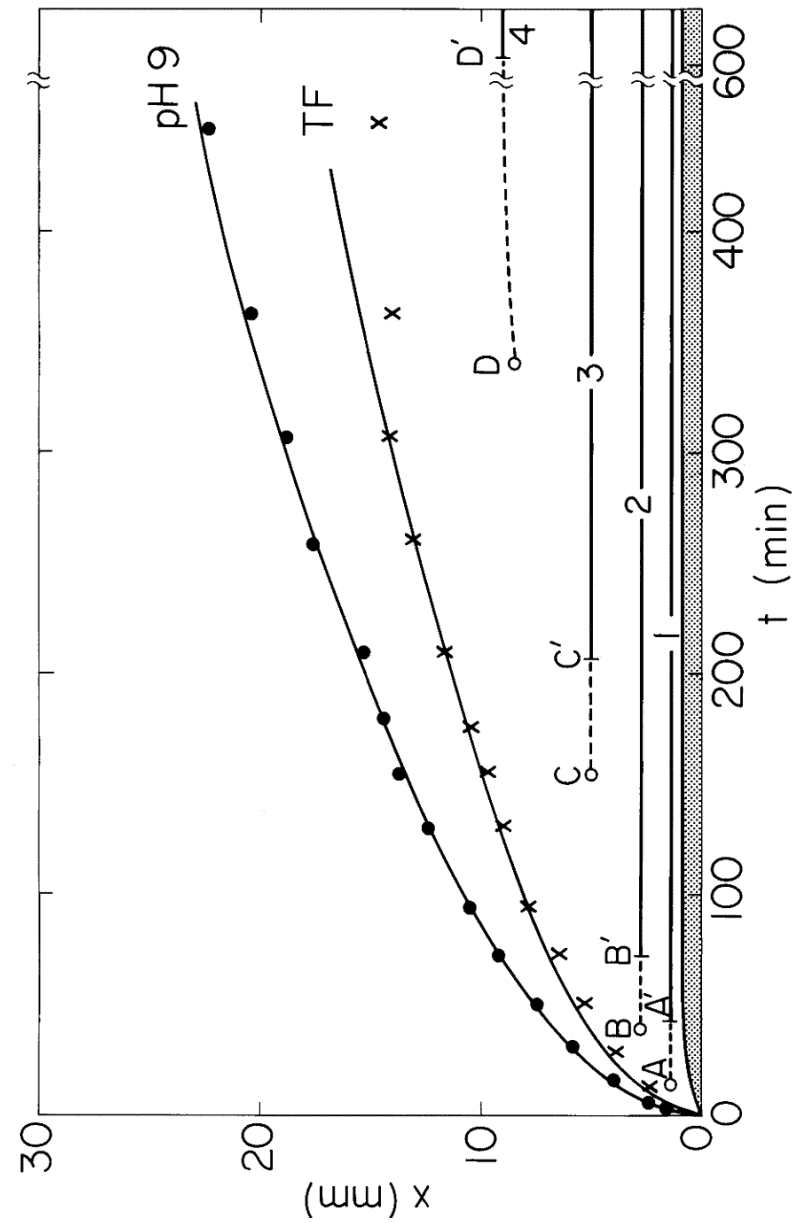
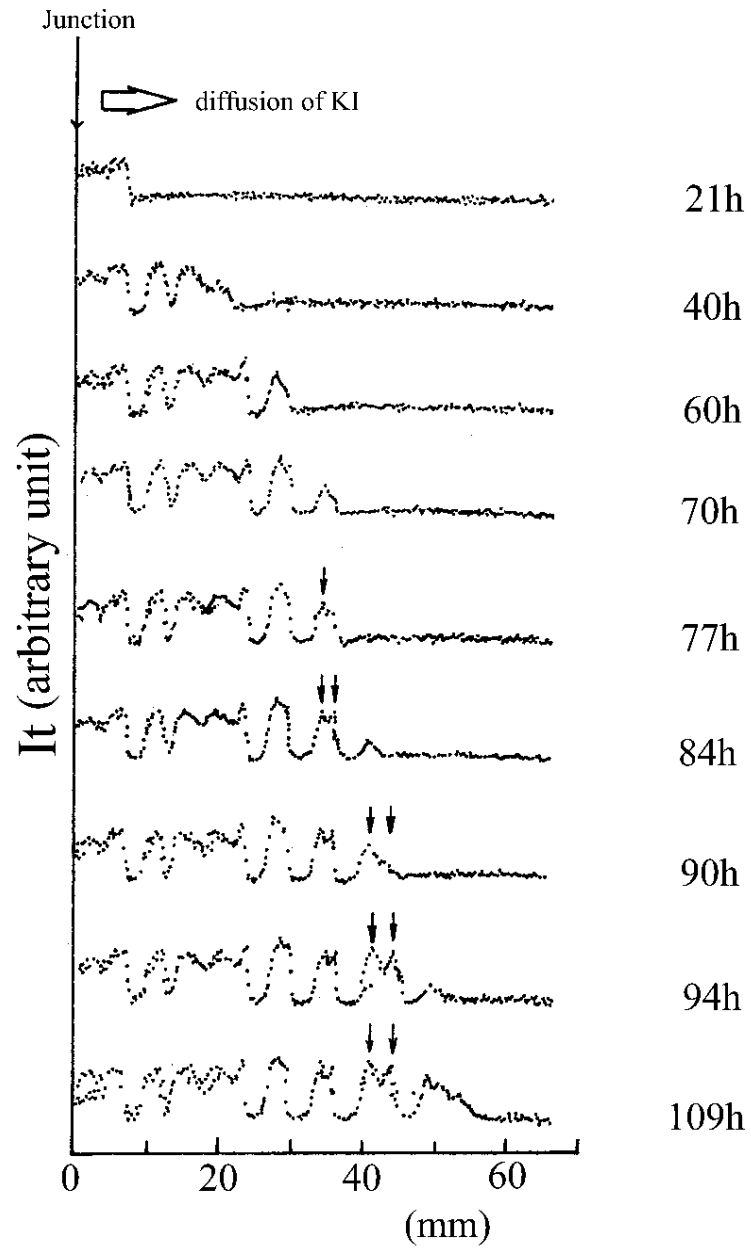


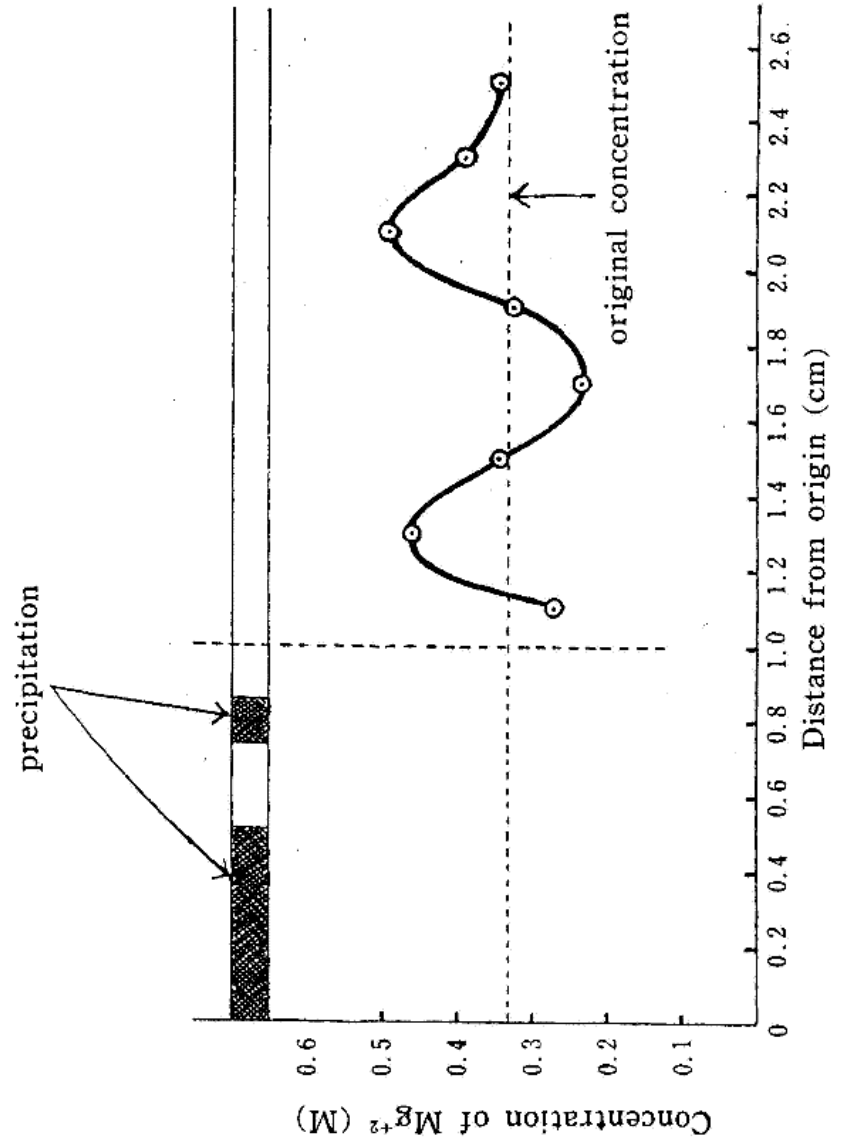
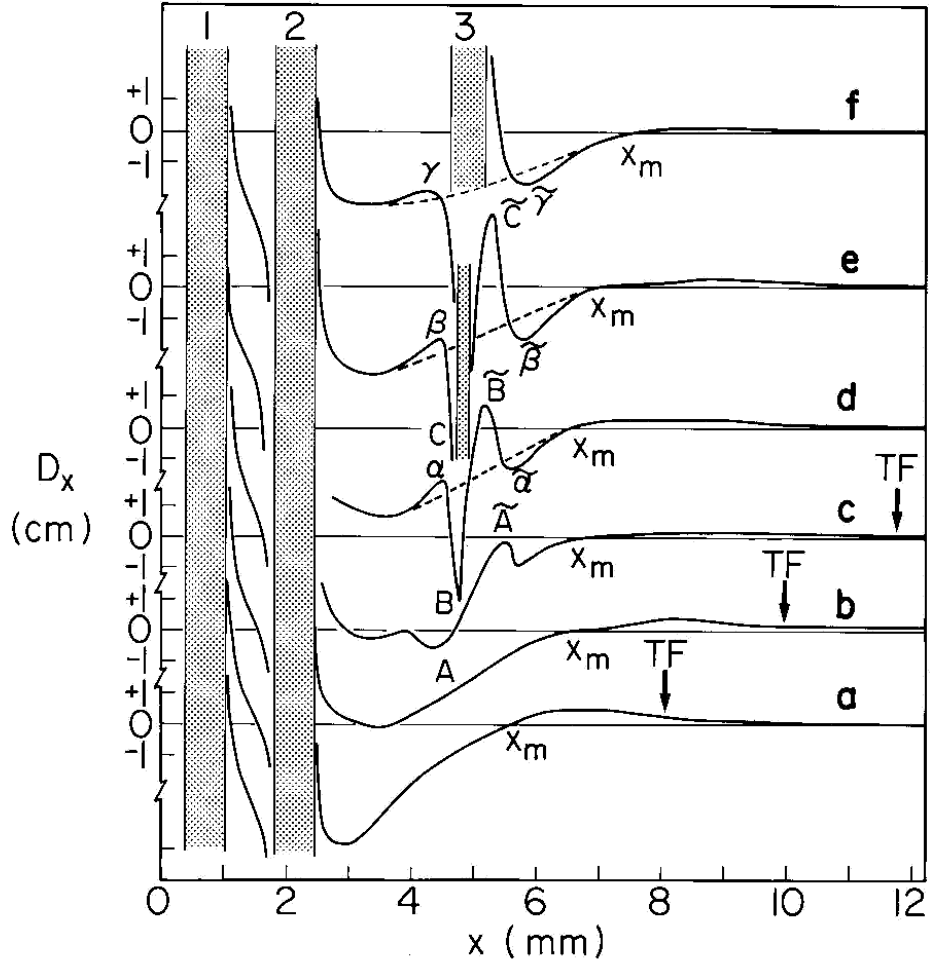
FIG. 2. Stages in the evolution of a fluctuation. (a) Initially homogeneous. (b) A small fluctuation. (c) A developing structure.

$$\dot{R} = V(R) = \frac{D_1 c_1^{**}}{\rho_c R} \left( S - 1 - \frac{2\beta\gamma}{\rho_c R} \right). \quad (1)$$

$$R > R_c = \frac{2\beta\gamma}{\rho_c (S - 1)} \quad (2)$$







B013

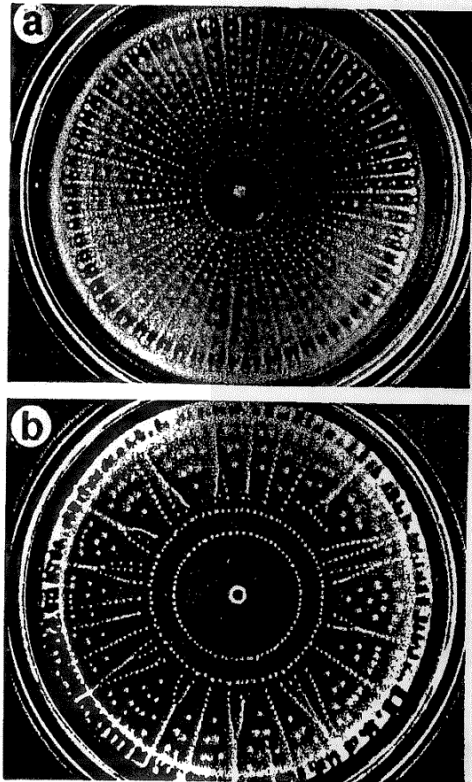


FIG. 4. Petri plates (8.5 cm i.d.) containing aggregates of *S. typhimurium* wild-type strain LT2 grown in M9 succinate, citrate for 72 h at 25°C: (a) 5 mM succinate and 1.5 mM citrate. (b) 5 mM succinate and 1.7 mM citrate. The inoculum, a remnant of which can be seen at the center of each plate, was 5  $\mu$ l of a stationary-phase culture grown on M9 glycerol. For other details, see figure 1 of ref. 21 or 22. Photographs courtesy of E. O. Budrene (Harvard University).

B012

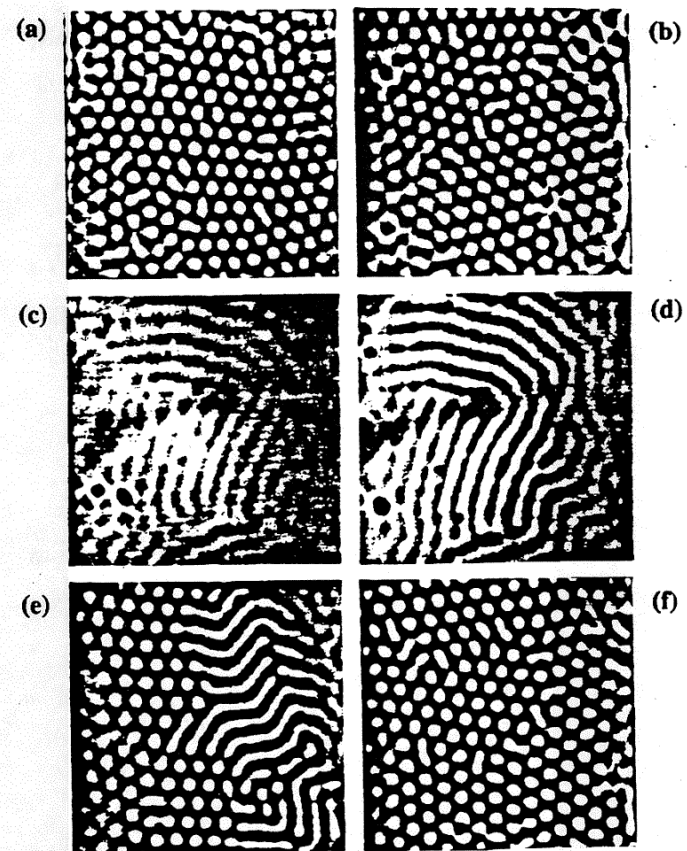


Figure 5. Observed bistability between hexagonal and striped patterns as function of  $[\text{CH}_2(\text{COOH})]_2$ . The control variable  $([\text{CH}_2(\text{COOH})]_2)$  in mM was (a) 13.0, (b) 21.0, (c) 25.0, (d) 21.0, (e) 14.0, and (f) 13.0. Other conditions were held fixed at the values given for Figure 2a.