

Solution of equations 11 for a lattice of 64x64 points with $\beta = 2.0$ and $\kappa = 5$. Color indicates modulus of the amplitude of the complex field. (Adapted from ref. 15.) Figure 7



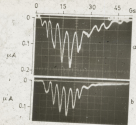


Fig. 2.





Quasicrystalline structures in capillary tubes. Capillary tubes were excited in a 1.8-mm-deep layer of silicone by oscillating it vertically in a gravitational field at 140 Hz. A periodic modulation appeared in the background lattice of the capillary array. Increasingly complicated quasicrystalline structures appear with further increases in the amplitude. (Courtesy of A. B. Levinsky) Figure 3

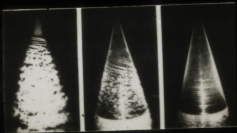
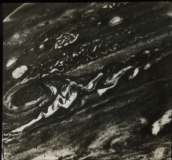




Fig. 1. Micrograph of a cross-section of a biological structure showing concentric rings.

Fig. 2. Micrograph of a cross-section of a biological structure showing concentric rings.





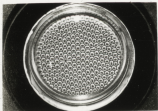
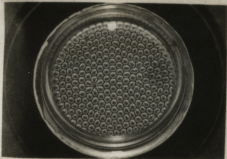


Fig. 1. Lithographic convection cells on a uniformly heated copper plate and under an air surface. Fluid silicone oil. Visualization with aluminum powder. After [11]





THE MADDY-DADDY REACTION: CHEMICAL SCROLL WAVES

Scroll waves are waves moving across the Maddy-Daddy reaction. It is used to study the reaction rate. The waves will move spontaneously or be initiated by scratching the surface with a fine instrument as in the photographs above. The scroll waves are bundles of carbon dioxide released by the reaction (see the section on chemical structures in chemistry) and look up in response to the reaction. The scroll waves are shown in the photographs above. The scroll waves are shown in the photographs above. The scroll waves are shown in the photographs above.



Like a geologic soccer ball, distorted by the author's wide-angle lens, Silicate columns as high as 60 feet terraces a hike at, Devils Postpile National Monument. Nearly 100,000 years ago, basalt poured from a vent in this valley and cooled to form a polygonal columns. Glaciers later sheared off the tops and polished the surface.