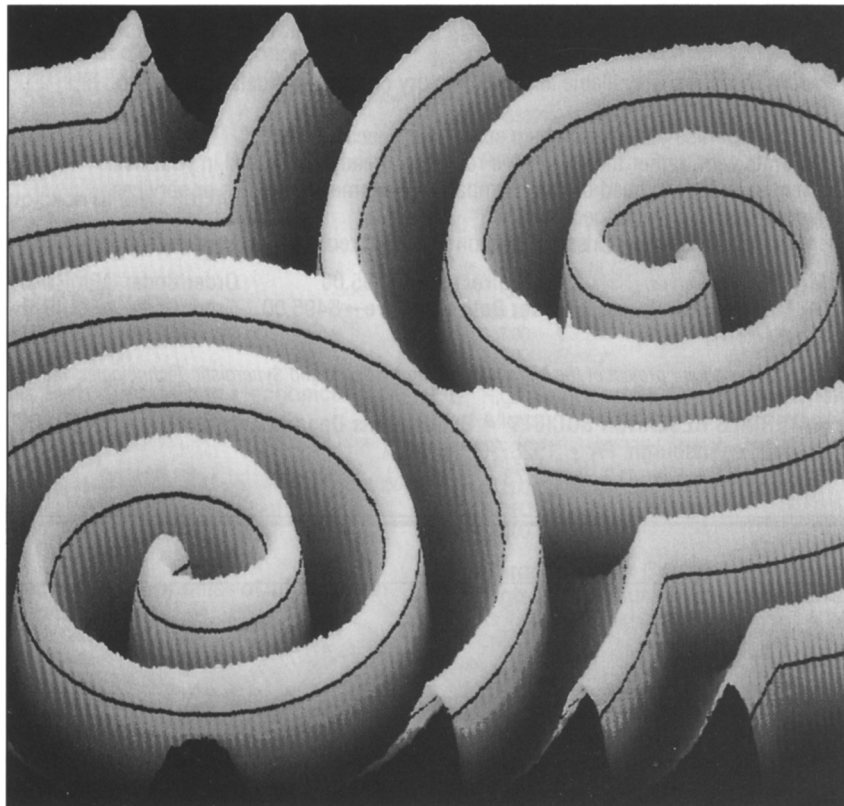


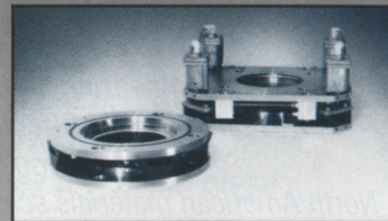
Figures appearing in the EDITOR'S CHOICE are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated to the original meaning. Submissions of candidate figures are welcome and should include a complete source citation, a photocopy of the report in which it appears (or will appear), and a reproduction-quality original drawing or photograph of the figure in question.



It looks like computer art or perhaps a computer-aided design of a heating coil, a cookie cutter, or a waffle iron. It is indeed computer generated, but the EDITOR'S CHOICE picture this month is a representation of real data. It is a three-dimensional perspective view of a 410-pixel square area showing the intensity of transmitted light (the depth coordinate) through the reaction zone of a thin layer of solution as a function of lateral position. The solution is a Belousov-Zhabotinskii system comprising sodium bromide and bromate and acetic and sulfuric acids. The expanding near-Archimedean spiral chemical reaction waves, which have the figment of solidity granted by interpixel interpolation of the data, are caught in the act of collision and annihilation. To capture this reaction-diffusion-produced pattern, a two-dimensional spectrophotometer incorporating a video camera and high-rate digitizing and data-capturing electronics were used by S.C. Müller, T. Plessner, and B. Hess (*Biophysical Chemistry* 26 (1987) p. 357) of the Max-Planck-Institut für Ernährungsphysiologie (Dortmund, Germany)\*. They spiked the reacting solution with ferroin to aid in ultraviolet light (490 nm) absorption. A slight disruption of an expanding circular concentration wave produced the spiral pattern. The narrow black stripe is an isoconcentration line artificially enhanced to delineate the pattern's shape. The authors imply, however, that such striking patterns exist in nature even when there are no computers present to visualize them.

\*See also J. Ross, S.C. Müller, and C. Vidal, *Science* 240 (1988) p. 460.

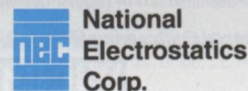
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