‘Spike’ Walker.
VITAMIN C by “Spikeberg” illumination.

During the 1990s I discovered the aesthetic charms of L-ascorbic acid, and devised the “Spikeberg” disc for its more compelling photography. This is a magenta or cyan + Polaroid patch stop, with an annulus composed of segments of the remaining colours of the spectrum, used with an analyzer. Thus with a magenta stop, the purely anisotropic areas of the specimen are rendered in red and blue, while any structures which produce abrupt changes of wave path appear yellow, orange, and green.

Use of this lighting technique proved particularly effective on preparations made by scratching a thin film of supersaturate to form squares, and then breathing on the developing spherulites at intervals of, say, a minute. The result of the latter is momentarily to increase the rate of crystal growth and, because the more rapidly-grown crystals are finer, they are more refractile than the surrounding ones, and thus appear in the colours of the annulus. In this picture, the yellow lines represent the positions of the crystal growth front at 60-second intervals, while the number of lines shows the time taken for the preparation to be completed.

For the photography I used a Zeiss planapochromat ×4/NA0.16 on a widefield nosepiece with a 3.2× projection eyepiece, to give ×10 on the transparency. “Spikeberg” [fairground] illumination was used as described above, with automatic exposure on the 35mm photohead of a Zeiss Ultraphot III stand, with tungsten-halogen illumination and a daylight conversion filter.