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Microscopy of the earliest physiochemical events during the digestion of fat. Interference colors produced by birefringent liquid crystals composed of fatty acids and calcium formed by pancreatic lipase hydrolysis on the surface of an olive oil droplet under simulated physiological conditions (crossed polars, first order quartz compensator, × 870). See page 145. [J. S. Patton and M. C. Carey, Harvard Medical School, Peter Bent Brigham Hospital, Boston, Mass.]