CHARACTERIZATION OF COTTON FIBER DEVELOPMENT

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Cotton fiber development has been investigated by light microscopy/image analysis (IA), transmission electron microscopy (TEM), fourier transform infrared microscopy (FT-IR), and x-ray diffraction methods. Two cotton varieties, a Deltapine 61 (hirsutum) and a Pima S-6 (barbadense) have been studied. New information about the deposition of primary wall has been found as well as changes in the infrared spectrum during growth. Changes in percent crystallinity and crystallite orientation were also apparent during fiber maturation.

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