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**Cover**

Dark-field fluorescence photomicrograph of cellulose ribbons synthesized by *Acetobacter xylinum* and then stained with the fluorescent brightener, Calcfluor White ST (about \(\times7100\)). A cellulose product with altered morphology and crystallinity is produced when Calcfluor White is added during cellulose synthesis. See page 903. [C. Haigler and R. M. Brown, Department of Botany, University of North Carolina, Chapel Hill]