

## Symposium on Chemical Crosslinking of Cellulose

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The treatment of rayon and cotton fabrics with formaldehyde, aminoplasts, or other resins to produce stabilization, resilience, and wash-wear behavior is a technological process of considerable importance which has been practiced on a substantial scale for almost 30 years. It has come to be fairly generally, but not universally, believed that these treating agents produce their effects by chemically crosslinking the cellulose chains within the fiber. This theory has been a very fruitful working hypothesis for recent research in this field and has led to useful new reagents which must certainly act through a crosslinking mechanism. However, crosslinking in a heterogeneous system, such as a cotton or rayon fiber, is a quite complicated process. We have begun to suspect that details such as the number of crosslinks, their distribution in the fiber structure, and perhaps their size or chemical nature can be very important in the effect obtained. Studying these possibilities presents some challenging problems which will require diligent and sophisticated use of all the chemical and physical techniques we can bring to bear on them.

The papers in this symposium give a reasonable picture of where we presently stand in the study of the fine structure of cellulose crosslinking. Much remains to be done before a satisfactory scientific basis is achieved for the art of crease-resistant finishing of textile, but out of such an understanding will come the real advances in this technology.

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