Study on the Thermal Properties of Skin and Fibers on Sodium Citrate Dechroming Process of Wet Blue

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Abstract: The thermal properties of skin and fibers on sodium citrate dechroming process were studied by determining the hydrothermal shrinkage temperature, the content of chromium in skin and collagen hydrolyzing in solution, as well as the dry heat shrinkage curve using thermal platform microscope. The results showed that: when dechroming and cross-link among collagen fibers were affected by sodium citrate, the content of chromium reduced, and the degree of collagen hydrolyzing increased, and shrinkage temperature rose with the increase of dechroming time. The dry heat properties of fibers could be enhanced using sodium citrate, and the shrinkage ratio reduced, and shrinkage temperature rose with the increase of the dechroming time. The stability of crystal regions could be improved using sodium citrate as well, and the disappearing temperature of crystal regions rose as the time went by. **Key words:** thermal platform microscope; dechroming of wet blue; hydrothermal shrinkage temperature; dry heat shrinkage curve