An Insight into the Starch Coloration

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The study began with an interesting phenomenon in scientific activity. The past research had shown the coloration of starch and iodine is a joint result of iodide ion and water. It is difficult to discuss the roles they play in the coloration in due to the complicated system related to starch-iodine reaction. However, it was surprisingly found that helical starch subsists in paper. Taking good use of starch in paper, the direct experimentally proofs of the exact influences of both iodide ion and water were respectively realized. In the experiment, iodide ion was proved to be indispensable for coloration and take part in the formation of the blue complex. The significance of water was also demonstrated that it helps the hydrophobic iodine get into the helical cavity of starch. This study clearly discusses the factors in coloration, which helps people better understand the essence of the starch-iodine coloration reaction.

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