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Fiber-reactive Dyeing



Tie-dyeing, is where you take a piece of fabric or clothe, usually cotton, and you tie and dye the cloth, hence the name. Tie-dyeing is usually done with bright colors. Cotton is composed of polymers of glucose, called cellulose. The monomers have hydroxyl functional groups that can react with the dyes to permanently attach the dye

to the fabric, leaving the swirl of colors that you see on a traditional tie-dye shirt.

Some of the earliest surviving tie-dye dates back to 500-810 AD from Peru. Tie-dyeing was known in the United States by 1909 by professor Charles E. Pellow of Columbia University. But tie-dye did not become a fad until the 1960's following the examples of rock stars like John Sebastian, who made his own tie-dye.

The outcome of this project was my favorite part. I had never dyed clothing before, and making my own tie-dye was awesome. And the chemical aspect of the assignment made a lot of sense in how the dyes connect to the hydroxyls and why they work.