

DPPH: Antioxidant Properties of Tea

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My project is DPPH: Antioxidant Properties of Tea, in which I tested to see if earl grey, jasmine, or chamomile tea had vastly different amounts of antioxidants, and if brewing time affects those amounts. I chose this project because I work in a coffee shop, and am an avid tea drinker. I will use DPPH, ethanol, and a spectrophotometer to perform this experiment. This project can help give insight into the differences in various kinds of tea and what antioxidant properties they have. This project also can help make consumers, much like myself, make an informed choice when it comes to deciding what kind of tea to drink. In my project, I extracted each tea three times, at all brewing lengths, which include; one minute, three minutes, and five minutes. Then, I used the DPPH and ethanol concentration to stain the teas based on their antioxidant levels, which I measured with the spectrophotometer. My hypotheses were that the jasmine green tea would have the highest antioxidant levels, and that the longer the tea was brewed, the higher the antioxidant levels would be. One hypothesis was upheld, which was that the longer the tea was brewed, the higher the antioxidant capacity. My other hypothesis was disproven, as earl grey tea had a higher antioxidant capacity at all three times.

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