

## Burning Dollar Bill

### Concepts

#### **Explanation:**

This demonstration is based on two properties to prevent the bill from burning. The first is that dollar bills are relatively flame resistant compared to normal paper which is further enhanced by soaking the bill in water before placing it in the methanol. The second property is that the methanol is not burning on the bill itself instead burning in the vapor phase as the methanol evaporates off the surface of the bill. Between these two behaviors you can burn the methanol without burning the paper. In certain situations this will lead to the methanol evaporating/dripping off the bill and the flame going out by itself before it burns the paper itself.

#### **Sources:**

*If you have other explanations, concepts, or ideas for this demonstration please share them by contacting our Chem Demo team ([bedell@nku.edu](mailto:bedell@nku.edu); [sieveb1@nku.edu](mailto:sieveb1@nku.edu)). We will pass them on to the community and credit you with the ideas.*