

## Dry Ice with Universal Indicator

### Concepts

#### Explanation:

Cabbage juice is a natural pH indicator. As the CO<sub>2</sub> vaporizes the CO<sub>2</sub> interacts with the water to form carbonic acid.



This acid then dissociates in water to form HCO<sub>3</sub><sup>-</sup> and H<sup>+</sup>. This H<sup>+</sup> then changes the pH making the solution more acidic and the color change.

#### 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); [sievel@nku.edu](mailto:sievel@nku.edu)). We will pass them on to the community and credit you with the ideas.*