

First, the Antarctic ice was retrieved by drilling a hole in the ice sheet, and the ice core was separated into segments. After the ice core segments were transported to the lab bench, the segments were melted with a hot wire wrapped around the core inside a gas chamber. The gas was suctioned into a canister. Next, mass spectrometry was performed on the gas in the canister corresponding to the segment. Finally, the ratio of oxygen isotopes in the gas was calculated, which is correlated with average atmospheric temperature when air bubbles were trapped in the ice. The average air temperature versus time over the centuries can be graphed since the deeper the air bubbles, the older the air trapped in the ice.