Mobile Carbon Capture - Phase 3

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A mobile carbon capture device to extract CO2 from car exhaust was designed and built to fit in a normal passenger car, a Toyota Sports Utility Vehicle (SUV). The mobile device was constructed as a fine spray CO2 scrubber using Potassium Hydroxide (KOH) or Sodium Hydroxide (NaOH) solutions as the CO2 absorbents. Measurements were conducted using a commercial CO2 sensor and laptop computer to measure the CO2 content of the car exhaust inflow and outflow of the scrubber over a test period. Results were calculated and presented to determine the mobile scrubber efficiency and comparison of absorbents.

Awards Won:

Fourth Award of $500

American Chemical Society: Second Award of $3,000