

Name

# **Conductive Polymer Data Sheet**

### A. Synthesis of Polyaniline

Observations

## C. Testing Conductivity

Sensor	Resistance Reading		Conductivity
	Before	After	(Increase or Decrease)
Acid doped			
Base doped			
Acid doped sensor over base			
Base doped sensor over acid			
Control			

#### Observations

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#### **Post-lab Questions**

- 1. The resistance measured by the multimeter is inversely related to conductivity.
  - a. When the acid sensor was held over the hydrochloric acid beaker, what happened to the conductivity?

b. Which form of polyaniline is likely present (leucoemeraldine, pernigranaline, emeraldine salt, emeraldine base)? Why? List all that apply.

2. a. When the base sensor was held over the ammonium hydroxide beaker, what happened to the conductivity?

b. Which form of polyaniline is likely present (leucoemeraldine, pernigranaline, emeraldine salt, emeraldine base)? Why? List all that apply.

3. How did the conductivity of the sensors change when held over the opposite beakers?