### A Sustainable Process for Phenol Production

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### Principal investigator

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### Overview

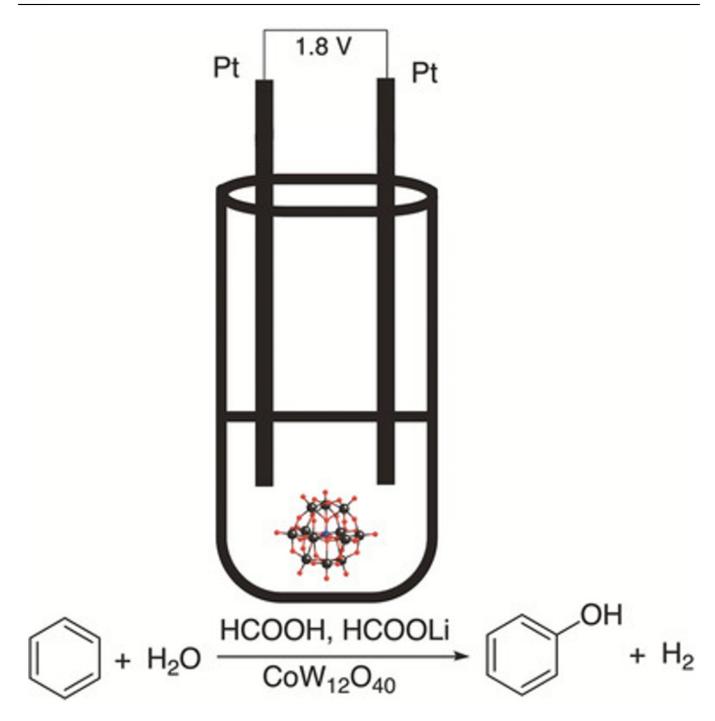
A sustainable method for phenol production using electrocatalytic oxidation of benzene.Â

## **Applications**

- Production of phenol from benzene
- Production of acetaldehyde from ethylene
- · Production of malonic and/or pyruvic acids from acrylic acid
- Production of various alcohols from aliphatic and aromatic hydrocarbons

## Differentiation

- Safe process in low Temp.
- Highly Selective (no acetone as co-product)
- · Cost-Effective
- · Simple and fast process



# **Development Stage**

A proof of concept was demonstrated on a lab scale.

Non-optimized reaction conditions: Faradaic efficiency of 75% and 35% yield.

### **Patent Status**

USA Granted: 11,174,561 USA Granted: 11,795,553