Enhanced Water Splitting With Protic Buffer/Electrolyte Cocatalysts

Title: Enhanced Water Splitting with Protic Buffer/Electrolyte Co-Catalysts

Invention: This invention is a protic buffer used to provide electrolytes and increase the rate of electrochemical reactions. The buffer acts as a co-catalyst and can be reused because it is not consumed during the reaction.

Background: Electrochemical systems that are conducted in an aqueous environment require an electrolyte solution to help carry the current. Unfortunately, some electrochemical systems, such as water electrolysis, are not used at a wide scale due to their high expense and inefficient reactions. The technology presented here is a simple and inexpensive method to help increase the reaction rate so electrochemical systems can run more efficiently.

Applications:
- Water splitting
- Any type of aqueous electrochemical system

Advantages:
- Can be used in a wide range of pH levels
- Readily available
- Inexpensive
- Reusable

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