Mediated Hydrogen Anode for Use in Reductive Electrosynthesis

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The Invention

The inventor discloses a new method and system for reductive electrochemical synthesis that uses H2 as the terminal reductant. Essentially, this invention will enable H2-integrated anodes and flow-reactor technology for reductive electrosynthesis. The invention, including potential classes of H2 mediators, is summarized in the figure linked below.

Key Benefits

- Eliminates need for "sacrificial" anode
- Provides means to "supercharge" hydrogen as a stronger reductant

Additional Information

For More Information About the Inventors

- Shannon Stahl
- Thatcher Root

Publications

- Read a news story about this technology.

Tech Fields

- Clean Technology : Energy storage, delivery & resource efficiencies
- Materials & Chemicals : Synthesis

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854

Figures