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Sustainable Electrochemistry: Examples and Challenges

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Abstract: Electrochemical methods have emerged as a promising approach for the synthesis of organic compounds, including the conversion of CO_2 into value-added products. These methods offer a pathway toward environmentally friendly, sustainable, and energy-efficient chemical production. However, despite their potential, electrochemical synthesis has not been widely adopted in industrial applications. Key challenges include scalability, electrode stability, reaction selectivity, and economic feasibility. This paper explores recent research advancements in green electrochemistry, highlighting both opportunities and barriers to its broader implementation in sustainable chemical manufacturing.

Keywords: Organnic copunds, Eletrochemical Method



