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Electrochemical promotion of nanodispersed Ru-Co catalysts for the hydrogenation of CO₂

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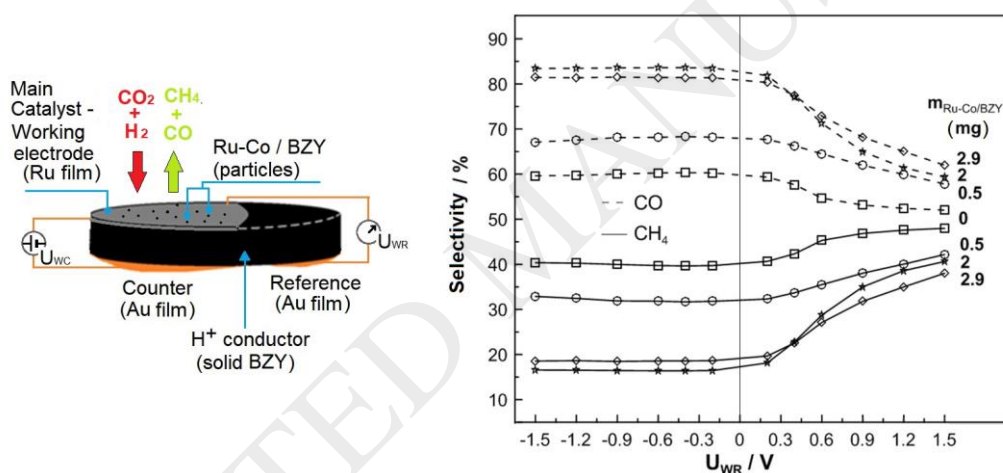
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Graphical Abstract:



Highlights

- A nanodispersed Ru-Co catalyst coating on a Ru/BZY film was electropromoted
- The selectivity to CH₄ varies between 17% and 41% with varying potential
- The apparent Faradaic efficiency of methanation is up to sixty
- Proton supply to the catalyst enhances the selectivity to CO
- Potentiostatic rate transients show parallel production of CH₄ and CO

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