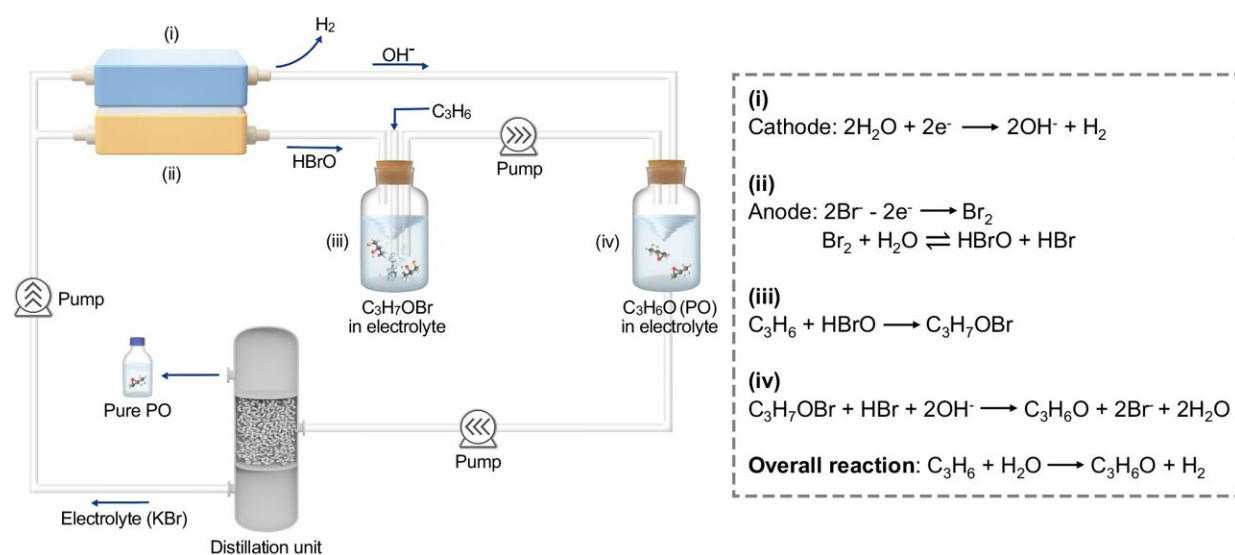


Spatially decoupling bromide-mediated process boosts propylene oxide electro-synthesis

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Schematic illustration of the electrochemical bromohydrin route for efficient synthesis of PO. Credit: *Nature Communications* (2024). DOI: 10.1038/s41467-024-48070-1

A research team led by Prof. Zeng Jie and Geng Zhigang from the University of Science and Technology of China (USTC) of Chinese Academy of Sciences (CAS), utilized bromide as a reaction medium to spatially decouple the electrolysis process and propylene conversion process in the electrocatalytic oxidation of propylene, achieving efficient

electrocatalytic oxidation of propylene to produce propylene oxide. The study was [published](#) in the *Nature Communications*.

Propylene oxide (PO) is a universal raw material for producing various chemicals, including polyether polyols, [propylene glycol](#), and dimethyl carbonate. Recently, the electrochemical synthesis of [propylene oxide](#) has attracted widespread attention.

Due to limited Faradaic efficiency (

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