Temperature and pressure effects on the electrochemical CO2 reduction

Vos, R.E.

Propositions

accompanying the thesis

"Temperature and Pressure Effects on the Electrochemical CO_2 Reduction"

1. Temperature is a crucial parameter to study as it can both enhance and suppress CO_2 reduction (CO2RR)
   Chapter 2, 3 and 6

2. Temperature has been understudied in electrocatalysis because its effects are complex as it influences many other parameters
   Chapter 2, 3 and 4

3. Chain growth by electrocatalysts is scientifically interesting, but will be difficult to apply in practice
   Chapter 5 and 7

4. High CO_2 pressures can enhance CO_2 reduction, but more importantly, they are crucial for CO2RR at elevated temperatures
   Chapter 6, 7 and 8

5. Electrochemical CO_2 reduction is a complex reaction and therefore far from understood

6. Stability is an important property which should be more emphasized to make electrocatalysis practically viable

7. Bridging electro- and thermal catalysis is a challenging, but interesting endeavor to gain better understanding of both systems

8. The reference potential is mostly used at ambient conditions and therefore it is poorly understood how to correctly apply it in other conditions

9. Electrochemical CO_2 reduction is not going to save the world on its own, but it can make an important contribution

10. An essential ingredient for good science is a good atmosphere, for example as this leads to many informal discussions in and outside the lab

11. When building new complex experimental setups, one needs a 'cathedral building' mentality

12. A good quality for a scientist is to know when to stop

Rafaël E. Vos
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