

# Joint Workshop

4TU.Energy & 4TU.High-Tech Materials

on

## *Energy materials, technologies, and sustainable recycling strategies*

*De Witte Vosch (Utrecht), Tuesday 13 May 2025*

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### **Aim of the workshop**

This joint workshop is targeted to early stage researchers to meet and find their common ground on energy materials and sustainable recycling strategies; it is the opportunity to get together to share knowledge and explore collaborations. If it is successful in content and in organization, follow-ups workshop on other topics or joint efforts on funding proposals can be expected.

*Materials for Electrochemical Applications & Electrochemistry, Fuel Cells, Electrolysers, CO<sub>2</sub> Capture & Conversion*

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### **Scientific Committee**

Ruud Kortlever (TUD)  
Francesco Maresca (RUG)  
Mina Shahi (UT)  
Amir Mahmoudi (UT)  
Akbar Asadi Tashvigh (WUR)  
Diletta Giuntini (TU/e)  
Davoud Javari (UT)  
Maja Rücker (TU/e)

### **Organisation**

Reina Boerrigter – 4TU.HTM (TUD)  
Sha Lou – 4TU.Energy (TU/e)

<b>9.30</b>	<b>Walk-in and coffee</b>	
<b>10.00 - 10.10</b>	Welcome <b>Arjan Mol</b> (TU Delft, scientific director 4TU.HTM) and <b>David Smeulders</b> (TU Eindhoven, scientific director 4TU.Energy)	
<b>10.10 – 11.30</b>	<i>Plenary session on Energy materials</i>  Introduction by the <b>chair</b> of this session (5)- <u>Diletta Giuntini</u>  <b>Marta Costa Figueiredo (TU/e)</b> - Material challenges in electrocatalysis – unravelling active sites  <b>Harry Bitter (WUR)</b> - Supported potassium carbonate and dual functional materials for direct air capture and conversion  Panel discussion <i>and move into parallel sessions</i>	
<b>11.40 – 12.20</b>	<u>Chair: Francesco Maresca</u> Materials for Fuel Cells  <b>Vassilis Kyriakou (RUG)</b> <b>Ayaan Banerjee (UT)</b>	<u>Chair: Amir Mahmoudi</u> Materials for CO <sub>2</sub> capture  <b>Louis de Smet (WUR)</b> Talk (15+5)
<b>12.20 – 13.30</b>	<b>Lunch + posters</b>	
<b>13.30 – 14.30</b> (25+5) (25+5)	<u>Chair: Akbar Asadi Tashvigh</u> <i>Plenary session on Sustainable Recycling Strategies</i>  <b>Ian Gibson (UT)</b> – Remanufacturing: a new challenge for AM  <b>Shoshan Abrahami (TUD)</b> – Recycling Strategies for Energy Materials	
<b>14.30 – 15.00</b>	<i>Poster / Pitch Session</i>	
<b>15.00 – 15.30</b>	<b>Break + posters</b>	
<b>15.30 – 16.00</b>	<u>Chair: Davoud Jafari</u> Materials for Electrolysers  <b>Marco Altomare (UT)</b> <b>Khatereh Roohi (TUD)</b> Talk (15+5)	<u>Chair: Ruud Kortlever</u> CO <sub>2</sub> Capture & Conversion processes  <b>Jingxiu Xie (RUG)</b> <b>Elsa Best (15+5)</b> Talk (15+5)
<b>16.30– 17.30</b>	<b>Closure, drinks &amp; bites</b>	