

# Test Procedures for PEMFC Stack Performance Tests

## Introduction and Summary

FROM HARMONIZED FUEL CELL STACK TESTING TO  
STANDARDIZATION

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Stack-Test: FCH-JU GA 303445



## Overview



- General approach of Stack-Test
- Test modules (TMs) for:
  - Stack sensitivity
  - Polarization curve
  - Other TMs
- Test programs (TPs) for:
  - Performance assessment and mapping
  - Deviant stack performance
- Application specific test operating conditions (TOCs)
- Conclusion

## Conclusion



Focus of test procedures on:

- Critical parameters and stack safety
- Reliability and comparability of test results

→ Sequences from most stable to most critical TOCs

TMs for TIPs influencing the stack performance:

- Stack sensitivity: Impact of one parameter on stack performance
- Polarization Curve: Steady-State curve in 2 h
- Other TMs: Low temperature, const. load, e-chem. methods, dead end

TMs can be combined to different TPs:

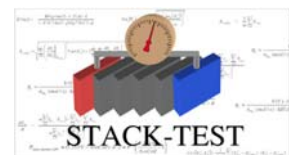
- Stack Performance Assessment and Mapping
- Deviant stack performance

Recommended TOCs for different applications

All TM and TP documents can be obtained: [stacktest.zsw-bw.de](http://stacktest.zsw-bw.de)

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