

## Control Strategies and Test Protocols for Reliable and Comparable PEMFC Stack Benchmarking

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# Outline

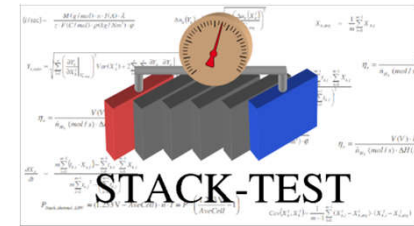
- Stack-Test approach
- Test protocols:
  - Performance
  - Durability
- Control strategies
- Harmonized test operating conditions
- Conclusion



## Conclusion

- TMs and TPs defined and validated for benchmarking
  - Performance
  - Durability
  - Safety
- Test results are sensitive to:
  - Test equipment (e.g., humidification)
  - Sensor positions for parameter control
  - Direction of parameter variation
  - Test bench control
- Representative, harmonized test operating conditions for all applications





Thank you very much for your attention!

All TM and TP documents  
free to download  
→ [stacktest.zsw-bw.de](http://stacktest.zsw-bw.de)



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