



User aspects of “Fatigue behaviour of hydrogen high pressure containers”

Dr. Kai Frederik ZASTROW,
PSA Peugeot Citroën,
Vehicle Safety Regulations

User aspects

Regulations

- Current H₂ storage and especially container regulations are based on existing automotive CNG Compressed Natural Gas regulations.
- However, a lot of parameters are different between CNG and H₂: different gas, different materials, different design, ...
- H₂ vehicle applications need dedicated regulations to ensure safety AND avoid any over-design (unnecessary costs).

R&D needs

- Further practical experience with type III and type IV cylinders needed.
- Future R&D projects must be focused on end-user needs: high safety level, reduced cost and consideration of regulatory projects.
- Advantage of container instrumentation for fatigue traceability should be carefully assessed, aiming reduced safety margins in future regulation.