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FIT4H2

Schulung: Produktion von
Wasserstoffsystemen

 Fraunhofer



FIT4H2

Produktionstechnologien – Bipolar-Platte

- Technologiebaukasten
- Vergleiche
- Fertigungsstrategien

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Production and Integrated Production (IPT)

H₂

hp

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Hochratenfähige Produktionstechnologien

Umformende Fertigungsverfahren

Herstellung von BPP durch

- **Verfahrensvorteile:**

- Hochratenfähig
→ 40 bis 60 BPP-Halter
- Vergleichbare Elemente

- **Entwicklungsansätze:**

- Form und Lagerung
- Stückmenge der Aktoren
- Maschinentechnik

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Opportunities for value creation

Hydrogen technologies play a central role in accomplishing global climate goals. Key elements are systems for converting renewable energy into hydrogen (electrolyser) and its reconversion into electricity (fuel cell), which are produced currently just in small quantities. However, to achieve a consistent reduction in CO₂ emissions and to establish a global hydrogen-based economy and society, system's availability must increase, with costs decreasing significantly. This requires industrial mass production, which in turn is inconceivable without value creation networks and manufacturing technologies.

Target groups and content

The Fit4H2 training workshop introduces the essential components of the electrolysers and fuel cells and combines them with substantial knowledge of their manufacturing technologies. The economic potential of production is also analyzed. The aim is to provide an overview of the market and concrete starting points for your company to enter the hydrogen system production value chain.

Topics

- Hydrogen economy in numbers - Value Analysis
- Fuel cell and electrolyser - Functionality, Types
- Production technologies for bipolar plates - Technology Toolbox, Manufacturing Strategies
- Production technologies for MEA - Structure, Manufacturing Technologies
- Quality assurance - Components, Testing technologies.
- Fuel cell system - Components, Application scenarios, Live presentation
- Electrolyser cell - Design Toolbox, Design variations
- Electrolyser system - Hydrogen Lab, Application concepts