

High temperature PEM fuel cells

Danish Power Systems has built up profound expertise and state-of-the-art know-how within the field of HTPEM fuel cells.

Advantages and results:

Unique cost effective PBI and PBI-blends

Acid doped membranes having:

- ⊞ Excellent chemical, thermal and mechanical stability electrolyte membranes
- ⊞ High proton conductivity over 0.01 S/cm at 150-200 °C with nearly zero water drag coefficients

Demonstrated tests show:

- ⊞ Up to 200 °C operating temperature under ambient pressure
- ⊞ No humidification
- ⊞ Very high CO tolerance (up to 3%) at 150-200 °C
- ⊞ Lifetime >15000 hours by continuous operation
- ⊞ Tested >140 start-up cycles for 7000 hours

R&D areas:

- ⊞ Polymer synthesis
- ⊞ Catalysts
- ⊞ Electrode fabrication
- ⊞ Electrolyte membranes
- ⊞ MEA's
- ⊞ Steam reforming
- ⊞ Fuel processors
- ⊞ Stack design
- ⊞ System management
- ⊞ System concept

Danish Power Systems is a research and development company founded in 1994, working in the fields of energy technology and chemistry. Our mission is to promote environmentally sustainable technological developments through research, innovation and consultancy. Our strategy is to provide our business partners with competitive, custom-made solutions based on our state-of-the-art know-how and many years of combined experience.

For further information, please contact us:

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