

 Modeling and simulation of fuel cell components and systems for multiple purposes, such as design, transient behavior, validation, controls and real-time applications (HIL/SIL).

The Fuel Cell Library enables component and system design as well as operational analysis for many types of fuel cell systems. The Library contains 70+ drag-and-drop, generic components to model reactors, fuel cell stacks, and complete systems. Additionally, it features around 20+ predefined configurations to simulate Solid Oxide (SOFC) and Proton Exchange Membrane (PEMFC) fuel cells. Fuel Cell Library can also be used to develop real-time simulation models for use in HIL/SIL rigs. Dynamic behavior in fuel cell and corresponding control systems is furthermore easily captured. The library contains all elements required for modelling full system such as stacks, reactors, burners, but also media, templates and other supporting elements.



KEY FEATURES

- SOFC and PEMFC in a single tool
- Easy to use in any fuel cell application domain
- Reactors for fuel pre-processing
- Handles reformate and other media (hydrogen, syngas, methane, diesel, natural gas)
- Predefined templates and examples shorten development time
- Can be used in HIL/SIL applications for controls verification
- New Visualizers showing stream data
- Supports both mass and molar unit
- Hybrid system example with gas turbine
- Allows to investigate different manifold design



Modelon is the premier provider of system modeling and simulation solutions based on Modelica and FMI standards.

Fuel Cell Library is developed and maintained by Modelon. For more information, please contact Modelon at: www.modelon.com sales@modelon.com