

## InnovaTek Catalysts and Fuel Processing Products

### iTek® Catalysts

- Developed for processing multiple fuels, both gaseous and liquid
- Proprietary formulas for 3 different reactions and temperatures
  1. Pre-reforming, 500-550°C
  2. Reforming, 700-800°C
  3. Water Gas Shift, 280-400°C



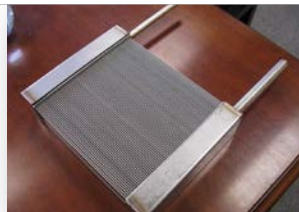
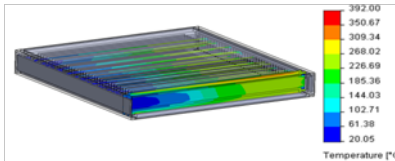
### H2Tek® Reformer

- Scalable
- Water neutral
- Integrated multi-fuel burner
- Microchannel processing at high rate
- Intrinsic process & thermal control



### X-Tek® Heat Exchanger

- ✓ High heat transfer density
- ✓ Microchannel design
- ✓ Low pressure drop
- ✓ Very compact
- ✓ Scalable



### InnovaJet® Fuel Injector

- ✓ Atomizes and vaporizes fuel
- ✓ Mixes fuel and steam
- ✓ Helps reduce coke formation
- ✓ Use with multiple types of liquid fuels



## Integrated Fuel Processor Systems

### InnovaGen® Fuel Processor

The InnovaGen® Fuel Processor, currently available for testing with strategic partners, includes integrated components in a framework or enclosure for easy installation. Components include the following InnovaTek proprietary products: H2Tek® reformer, iTek® catalysts, InnovaJet® fuel injector, X-Tek® heat exchangers, optional InnovaPure® WGS reactor, condenser, and the required insulation and balance of plant hardware.

The InnovaGen is capable of processing up to 68 mls per minute of biodiesel, jet fuel, ultra low sulfur (ULS) diesel, gasoline, ethanol, or other liquid fuel and generating up to 215 LPM hydrogen, enough for a 15 kW fuel cell. The system can be readily configured for processing gaseous fuels such as propane and natural gas. InnovaTek engineers will also integrate your fuel cell with the InnovaGen fuel processor and balance of plant components.

- Water neutral
- Fuel flexible
- Efficiency >75%
- Microchannel processing
- Scales from 0.5 to 15 kW
- Proprietary technology
- Adaptable for all fuel cell types

#### InnovaGen® Product Composition For Two Fuel Cell Types

Composition, volume %	Designed for Fuel Cell Type	
	SOFC	HT PEM*
H <sub>2</sub>	44	66
H <sub>2</sub> O	40	12
CO	6	1
CO <sub>2</sub>	10	21

\* System design for HT PEMFC includes InnovaPure® WGS reactor



*Price quotes available for InnovaGen® Fuel Processor and system component products to qualified parties upon request. Ask about options for fuel desulfurization, fuel cell integration, and system controls.*

### Contact Us

© InnovaTek Inc. • P.O. Box 6816, Kennewick, WA 99336-00601 USA  
Tel +509-375-1093 • mail@innovatek.com • www.innovatek.com