

Testing services at Ovonix Hydrogen Systems

Ovonix Hydrogen Systems LLC is a world leader in the development of solid-state metal hydride storage materials and systems. In the course of developing this technology, the company has developed extensive facilities for handling flammable solids and gases. Recognizing that the cost of these facilities and the supporting infrastructure might be prohibitive to many smaller companies, Ovonix Hydrogen Systems is now offering hydrogen testing services for others to contract.



Facilities

Ovonix Hydrogen Systems, LLC is a wholly-owned subsidiary of Energy Conversion Devices, Inc operating in a 71,000 square foot facility in Rochester Hills, Michigan. More than \$6M has been invested in this facility to create an infrastructure to safely test hydrogen storage equipment. 12 individual laboratories totaling more than 5000 square feet are controlled and monitored from a remote control center. Each high-hazard lab is equipped with safety lock-outs, hydrogen leak sensors, and UV flame detection.



Laboratories

Each lab is equipped with:

- 99.995% hydrogen, up to 5000psi, 15,000slpm
- Heating/cooling fluid, 5-80°C, 20 gal/min
- Remote process control
- Safety devices
- Customized test systems designed and fabricated to meet the individual needs of the experiment



Capabilities

- Testing system design and fabrication
- Complete testing, data analysis, and reporting
- Storage alloy material development and small-scale production
- Vacuum induction melting
- PCT analysis
- GC/MS (hydrogen purity)

Analytical Support Services

As a wholly-owned subsidiary of Energy Conversion Devices, Inc., Ovonix Hydrogen Systems can access the facilities of ECD's Central Analytical lab to support hydrogen testing. The following equipment is available in this A2LA certified laboratory:

- Scanning electron microscopy (SEM)
- Energy dispersive x-ray spectrometry (EDS)
- Wavelength dispersive x-ray spectrometry (WDS)
- Inductively coupled plasma-atomic emission spectroscopy (ICP-AES)
- X-ray diffraction (XRD)
- Fourier-transform infrared spectroscopy (FT-IR)
- Metallography—full range of optical microscopes, mounting, and etching equipment.
- Rheology
- Differential scanning calorimetry (DSC)
- Thermo gravimetric analysis (TGA)
- Particle size analysis (0.1—1000µm)



Ovonix Hydrogen Systems LLC

2983 Waterview Drive
Rochester Hills, MI 48309

Phone: 248.293.7002
Fax: 248.299.4228
Website: www.ovonic-hydrogen.com

Hydrogen Testing at Ovonic Hydrogen Systems

Ovonic Hydrogen Systems, LLC, a wholly-owned subsidiary of Energy Conversion Devices, Inc. is pleased to offer its extensive hydrogen testing infrastructure, facilities, and expertise to industry partners. For additional information or to discuss your specific testing needs, please contact:

Dr. Ben Chao, Director of Technology

(248) 293-7210

bchao@ovonic.com



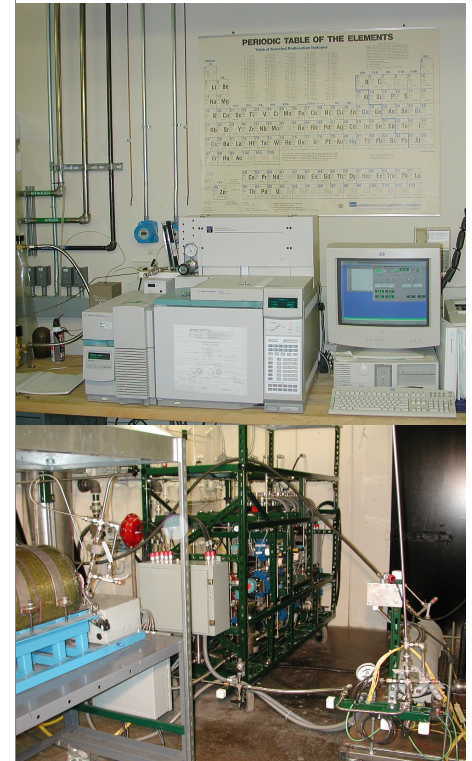
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