

# A Solid Oxide Fuel Cell (SOFC) Development Platform Demonstrated by Fideris Inc. and HTceramix SA

Turnkey system reduces barrier to entry to financially promising SOFC development field

**Hannover, Germany, April 13, 2005** -- Fideris Inc., a leading provider of innovative test solutions to fuel cell developers, catalyst companies, and research centers, and HTceramix SA (HTc), a leading commercial SOFC stack provider, today demonstrated an SOFC research and development platform at the Hannover Fair in Hannover, Germany. Solid oxide fuel cell systems are a promising technology for solving critical energy and environmental problems. The platform will be marketed to SOFC researchers and industrial labs preparing to enter the SOFC market.

Solid oxide fuel systems can be used in high power applications including industrial and large-scale central electricity generating stations and as auxiliary power units for vehicles. SOFC systems are highly efficient and have significant promise in highly profitable markets; however, the high temperatures needed to run the systems have made testing and validation difficult.

The turnkey system demonstrated by Fideris and HTceramix will allow researchers to install an SOFC system in approximately four hours. The unit demonstrated here includes an HTc 5-cell SOFC fuel cell stack and a Fideris test system.

According to Professor Daniel Favrat of the Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland. "This turnkey system reduces one of the key hurdles faced by researchers and educators entering the field of SOFC. Access to SOFC experimental and diagnostic data has never been so easy."

The integrated turnkey system includes Fideris FCPower™ software, an advanced software package that allows plug and play simplicity with a user-friendly graphical interface. A plug and play system allows the later addition of new components. Customers can augment their system with Fideris equipment or equipment manufactured by other suppliers. Customers can add analytical instruments, water chillers, dewpoint measurement devices and other components to an existing Fideris test system without software modifications. In addition, the software provides continuous data logging into a single data file, significantly aiding data analysis.

"Fideris strives to provide total solutions to their customers," states Fideris President Jeff Bentley. "Testing and validation are strategic to fuel cell development which costs the industry over \$400M annually. This turnkey system is another example of our commitment to helping our customers maximize their testing investment and accelerate their time to market."

"The SOFCConnex™ based stack uses a unique approach for stacking ceramic fuel cells," states Olivier Bucheli, Managing Director, HTc. "By integrating our SOFC system with a Fideris test system, we have created a turnkey solution that will help us move this technology into the hands of potential partners and researchers."

Fideris and HTc will jointly market this platform to universities, research labs, technical schools and potential end users for SOFC. Fideris and HTc expect to continue their collaboration by developing advanced measurement solutions such as impedance spectroscopy for cell and stack quality assurance. The system demonstrated at the Hannover Fair, is available for immediate sale and can be scaleable for various testing applications.

**Fideris Inc.** ([www.fideris.com](http://www.fideris.com)), formerly Lynntech Industries, Inc., is a leading provider of innovative test solutions to fuel cell developers, catalyst companies, and research centers around the globe. Our leading-edge test equipment, software, and services help customers solve complex R&D challenges, validate product performance, maximize research productivity, and lower operating costs. With test stations capable of analyzing all fuel cell systems ranging in size from below 1 Watt to over 100 kW, spanning all chemistries and operating on all fuels, Fideris Inc. provides powerful systems to accelerate your fuel cell development. Fideris Inc. is funded by energy-related venture capital firms Chrysalix Energy Limited Partnership of Vancouver, BC, Braemar Energy Ventures of New York, NY, Altira of Denver, CO, and Yellowstone Energy Ventures of Houston, TX.

**HTceramix SA** ([www.htceramix.ch](http://www.htceramix.ch)) is a dynamic and rapidly progressing developer of high temperature electroceramic applications in the field of energy and gas conversion devices. At the heart of its development is the SOFCConnex™ based stack, using a unique approach for stacking ceramic fuel cells. HTc started commercializing the SOFC stack beginning in 2005 and provides stacks to educational institutions and strategic partners.

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