PROJECT facts

U.S. DEPARTMENT OF ENERGY
NATIONAL ENERGY TECHNOLOGY LABORATORY

Fuel Cells

12/2000

AFFORDABLE MULTI-LAYER CERAMIC (MLC) FUEL CELL MANUFACTURING FOR POWER SYSTEMS (AMPS)

McDermott Technology, Inc.

PRIMARY PARTNER

McDermott Technology, Inc.
Alliance, Ohio
SOFCo
Alliance, Ohio
Alliance Research Center
Alliance, Ohio
Lynchburg Research Center
Lynchburg, Virginia

PROJECT PARTNERS

Advanced Refractory Technologies
Buffalo, New York
Ceramatec, Inc.
Salt Lake City, Utah

COST SHARING

DOE	$1,791,448
Non-DOE	$2,949,764

Description

McDermott Technology, Inc., with its manufacturing development partner Advanced Refractory Technologies, Inc., is working to develop a multi-layer, co-fired planar solid oxide stack and associated manufacturing technologies. The program will utilize the high-volume production methods currently employed in the manufacture of multi-layer ceramic (MLC) packages and capacitors for the microelectronics industry. The program will be performed in three sequential phases. Phase I will consist of characterization and selection of multi-layer, co-fired oxide fuel cell configurations to pursue in Phase II. In Phase II, the SOFCo/ART team will focus on the manufacturing process development for co-fired oxide stacks. Phase III will conclude oxide testing and the preparation of a business plan for commercialization.

Affordable Multi-layer Ceramic (MLC) Fuel Cell Manufacturing for Power Systems (AMPS)

McDermott Technology, Inc.

Goal

The goal of this program is to develop a novel, multi-layer ceramic manufacturing process that will improve the performance of planar SOFCs and reduce manufacturing costs to commercially competitive levels.

Project Duration

The project is a three-phase program with the following duration:

Phase I	1 October 1999 to 30 September 2000
Phase II	1 October 2000 to 31 March 2002
Phase III	1 April 2002 to 31 December 2002

CONTACTS

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