

**TITLE: COST-EFFECTIVE METHOD FOR PRODUCING SELF SUPPORTED PALLADIUM ALLOY
MEMBRANES FOR USE IN EFFICIENT PRODUCTION OF COAL DERIVED HYDROGEN**

QUARTERLY TECHNICAL PROGRESS REPORT

REPORTING PERIOD START DATE: 9/09/03 (PROGRAM START)

REPORTING PERIOD END DATE: 01/31/07

PRINCIPLE AUTHOR(S): K. COULTER

DATE REPORT WAS ISSUED: FEBRUARY 2007

DOE AWARD NUMBER: DE-FC26-03NT41849

SUBMITTING ORGANIZATION: SOUTHWEST RESEARCH INSTITUTE®
6220 CULEBRA ROAD (78238-5166)
P.O. BOX 28510 (78228-0510)
SAN ANTONIO, TEXAS

OTHER TEAM MEMBERS: COLORADO SCHOOL OF MINES
IDATECH, LLC

SUBMIT TO: NETL AAD DOCUMENT CONTROL
BLDG. 921 U.S. DEPARTMENT OF ENERGY
NATIONAL ENERGY TECHNOLOGY LABORATORY
P.O. BOX 10940
PITTSBURGH, PA 15236-0940



SOUTHWEST RESEARCH INSTITUTE®

SAN ANTONIO
DETROIT

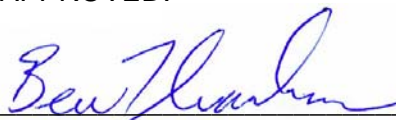
HOUSTON
WASHINGTON, DC

**TITLE: COST-EFFECTIVE METHOD FOR PRODUCING SELF SUPPORTED PALLADIUM ALLOY
MEMBRANES FOR USE IN EFFICIENT PRODUCTION OF COAL DERIVED HYDROGEN**

QUARTERLY TECHNICAL PROGRESS REPORT

REPORTING PERIOD START DATE: 9/09/03 (PROGRAM START)
REPORTING PERIOD END DATE: 01/31/07
PRINCIPLE AUTHOR(S): K. COULTER
DATE REPORT WAS ISSUED: FEBRUARY 2006
DOE AWARD NUMBER: DE-FC26-03NT41849
SUBMITTING ORGANIZATION: SOUTHWEST RESEARCH INSTITUTE
6220 CULEBRA ROAD (78238-5166)
P.O. BOX 28510 (78228-0510)
SAN ANTONIO, TEXAS
OTHER TEAM MEMBERS: COLORADO SCHOOL OF MINES
IDATECH, LLC
SUBMIT TO: NETL AAD DOCUMENT CONTROL
BLDG. 921 U.S. DEPARTMENT OF ENERGY
NATIONAL ENERGY TECHNOLOGY LABORATORY
P.O. BOX 10940
PITTSBURGH, PA 15236-0940

APPROVED:



BEN H. THACKER, DIRECTOR
MATERIALS ENGINEERING DEPARTMENT

DISCLAIMER

“This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness or any information, apparatus, product, or process disclose, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.”

ABSTRACT

In the past quarter, no technical work has been completed and two 'no cost' time extensions have been requested and granted to allow Idatech time to complete Task 5 relating to the testing of prototype membrane modules. The scheduled completion date of April 7, 2007 has been confirmed by Idatech.

Table of Contents

DISCLAIMER	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
1.0 RESULTS AND DISCUSSION	1
2.0 CONCLUSION	1

1.0 RESULTS AND DISCUSSION

There were no technical activities during this period. The outstanding pressure and purification testing at Idatech in a prototype module assembly was originally scheduled to be completed by January 31st. Following a discussion with DOE, an additional extension was requested and approved to provide Idatech with further time and a completion date of April 7, 2007.

1.1 Plans for Next Reporting Period:

- Idatech will have completed pressure and purification testing of at least one Southwest Research Institute[®] (SwRI[®])-manufactured membrane and test it in a prototype module assembly.
- SwRI will update a chapter in a book entitled “Inorganic Membranes for Energy and Fuel Applications.”
- SwRI will analyze any additional data and prepare a final report.

2.0 CONCLUSION

SwRI is continuing to monitor the progress of Idatech and prepare the final report.