21CR Project 605-10020

Microchannel Heat Exchangers with Carbon Dioxide

Updated 21 December 2001

Objective:

Evaluate the performance of CO_2 microchannel evaporator and gas cooler through experimental test data and capacity correlations.

Information/items expected to result from this project:

Heat exchanger capacity and pressure drop data correlations as a function of specified operating conditions and flow rates of refrigerant and air.

How are the results likely to be applied:

The results will be used by HVAC&R equipment manufacturers to develop more accurate and realistic computer models and assess the potential benefit of the transcritical CO_2 cycle.

Research subcontractor:

University of Maryland, College Park, MD. (Principal Investigator: Michael M. Ohadi, Ph.D.)

Status:

This project was concluded in the fourth quarter of 2001 and a final report approved for release. The final report is available for free downloading from ARTI's website.

Responsible 21CR Subcommittee: Alternative Equipment