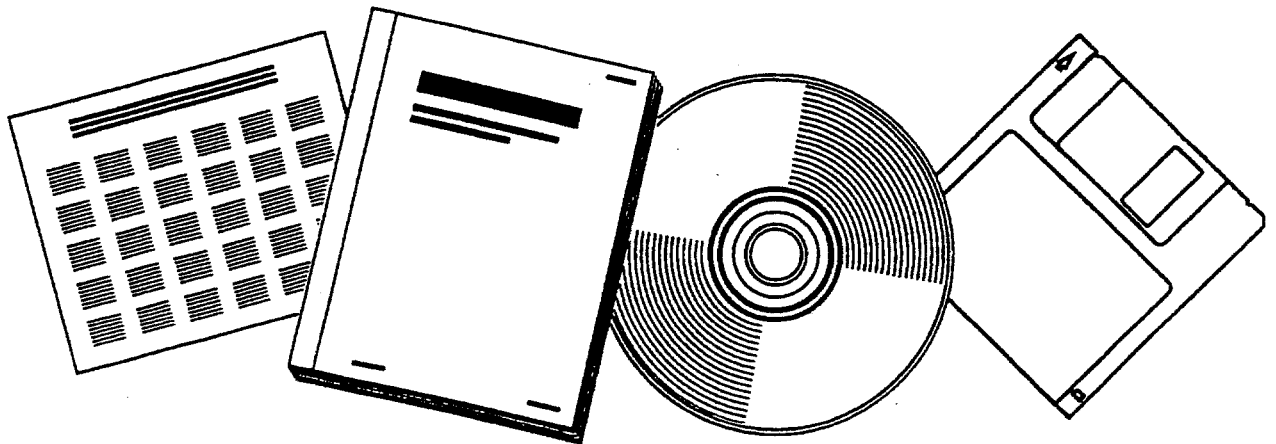**NTIS**

Information is our business.

DEVELOPMENTS IN INDIRECT COAL LIQUEFACTION IN SLURRY-PHASE AND OTHER REACTION SYSTEMS

CATALYTICA ASSOCIATES, INC.
MOUNTAIN VIEW, CA

FEB 1984

COPY

Developments in Indirect Coal Liquefaction in
Slurry-phase and Other Reaction Systems

.

Prepared by

Catalytica Associates, Inc.
430 Ferguson Drive, Bldg. 3
Mountain View, California 94043

Principal Investigators
Ken K. Ushiba
Jacques C. De Deken

Submitted to

United States Department of Energy
Contract No. DE-AC01-81FE-05077

February 1984
Catalytica File No. 3164-3

ABSTRACT

This report accounts for Task 3 of DOE Contract No. DE-AC01-81FE-05077. It reviews the developments in indirect coal liquefaction with emphasis on slurry-phase reactors and catalysis. This report also discusses of topics related to indirect coal liquefaction research, such as analytical techniques in catalysis. The subjects covered in this report were selected by DOE.

This report is the third and final task report of the three major tasks in this contract. The first task, "Direct Coal Liquefaction Catalyst Development-- Program Review and Research Perspectives," was completed in November 1982. The second task, "Review of Direct Coal Liquefaction by Slurry-Phase Catalysis," was completed in September 1983.

Table of Contents

Table of Contents
(continued)

Table of Contents
(continued)

List of Figures

List of Tables

List of Tables
(continued)