



DE82011273

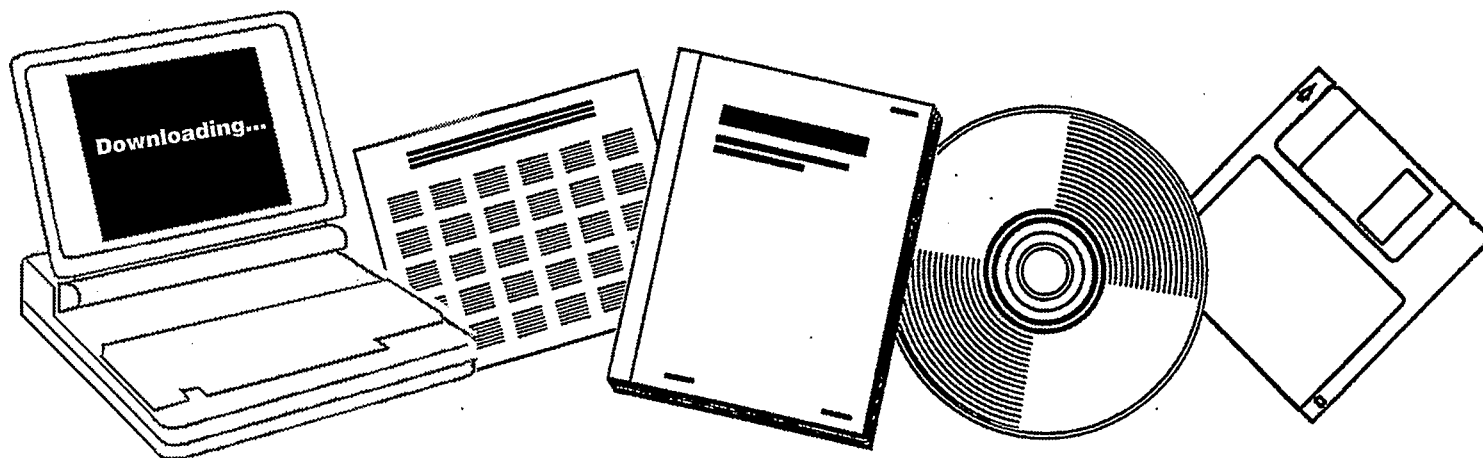
NTIS

One Source. One Search. One Solution.

**SOLVENT REFINED COAL (SRC) PROCESS.
PROGRESS REPORT ON THE THERMAL AND
HYDRODYNAMIC BEHAVIOR OF MULTIPHASE
REACTORS: A. SEPTEMBER 1980-APRIL 1981; B.
SEPTEMBER 1980-AUGUST 1981; C. AUGUST
1981-SEPTEMBER 30, 1981**

**PITTSBURG AND MIDWAY COAL MINING CO.
ENGLEWOOD, CO**

FEB 1982



U.S. Department of Commerce
National Technical Information Service

SOLVENT REFINED COAL (SRC) PROCESS

Progress Reports on the Thermal and Hydrodynamic Behavior of Multiphase Reactors

- A. September 1980 to April 1981
- B. September 1980 to August 1981
- C. August 1981 to September 30, 1981

Y. T. Shah
B. G. Kelkar
S. Godbole
M. Honath
R. Albal
A. Kulkarni
S. Phulgaonkar

Vol. V. Research & Development Technical Support Programs
Part 3: Modeling and Simulation Studies

Research and Development Report No. 53
Interim Report No. 52

February 1982

The Pittsburg & Midway Coal Mining Co.
Post Office Box 3396
Englewood, Colorado 80155

Prepared for the
U. S. Department of Energy
Division of Coal Conversion and Utilization
Under Contract No. DEAC-0579-ET10104

GULF SCIENCE & TECHNOLOGY COMPANY

Pittsburgh, Pennsylvania

Part A:

PROGRESS REPORT ON THE THERMAL AND HYDRODYNAMIC
BEHAVIOR OF MULTIPHASE REACTORS---
SEPTEMBER 1, 1980 - APRIL 15, 1981

Y. T. Shah
B. G. Kelkar*
S. Godbole*
M. Honath*
R. Albal*

Under DOE Contract No. DEAC-0179-ET-10104

Chemicals and Minerals Division
Report No. 627RM064
Project No. 137-0400 and 238-8586
File No. FT07-30-30
April 1981

Approved *Norman R. Carr*
N. L. Carr

Date *May 14, 1981*

Approved *Harold Beuther*
Harold Beuther

Date *May 19, 1981*

*University of Pittsburgh

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY.....	ii
INTRODUCTION.....	1
PART A: FLOW SYSTEM.....	1
PART B: BATCH BUBBLE COLUMN.....	28
PART C: MEASUREMENTS OF MASS TRANSFER COEFFICIENTS IN THREE PHASE.....	56
AGITATED REACTOR SYSTEM UNDER HIGH PRESSURE, HIGH TEMPERATURE CONDITIONS	
NOMENCLATURE.....	70
REFERENCES.....	71