FIGURE 4.3-1

LOG OF MOLE FRACTION vs. CARBON NUMBER

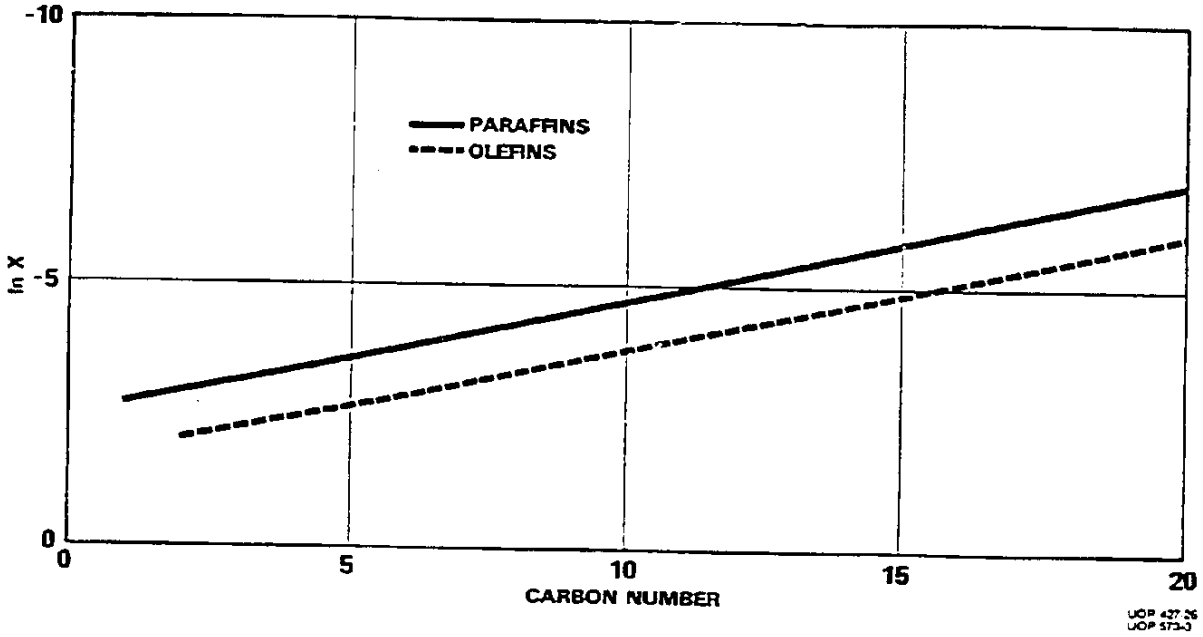


FIGURE 4.3-2

LOG OF MOLE FRACTION vs. CARBON NUMBER

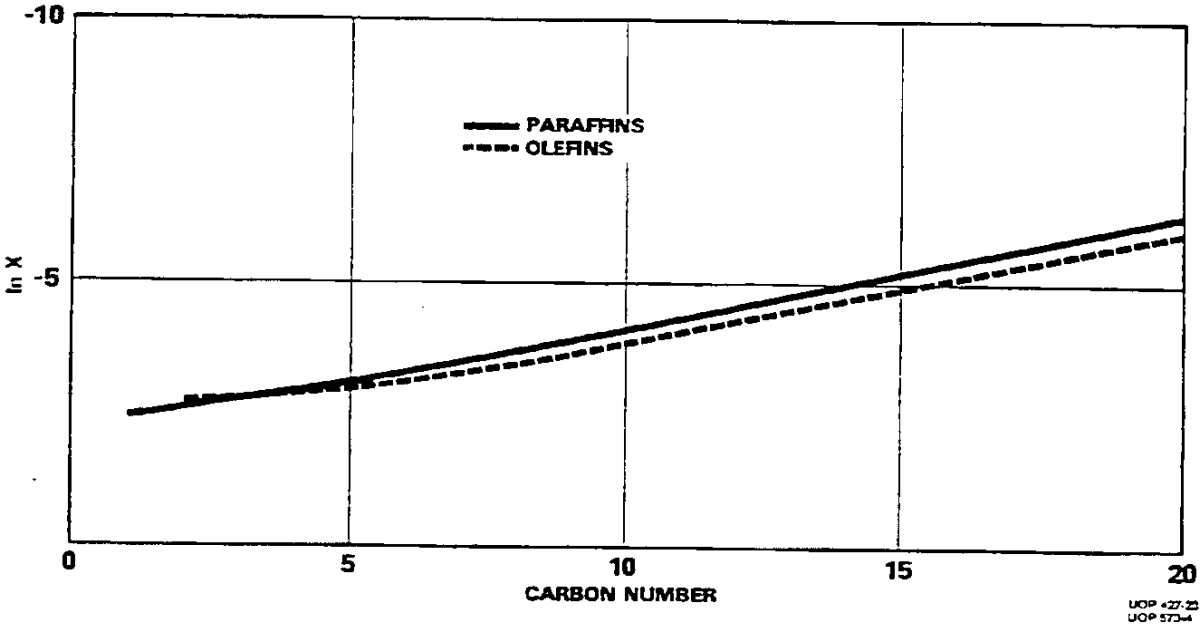


FIGURE 4.3-3

VARIATION OF TYPICAL PRODUCT SPLIT WITH DEGREE OF POLYMERIZATION

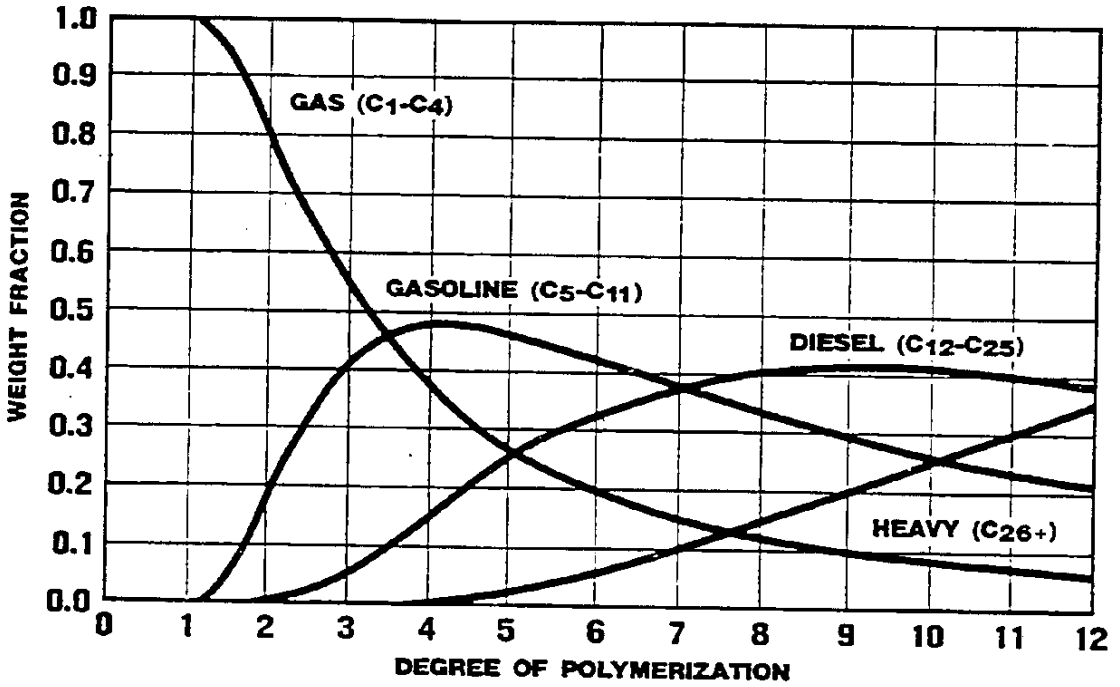


FIGURE 4.3-4

FISCHER TROPSCH

TUBE WALL REACTOR
CO CONVERSION vs. TEMPERATURE
VARIABLE PRESSURE

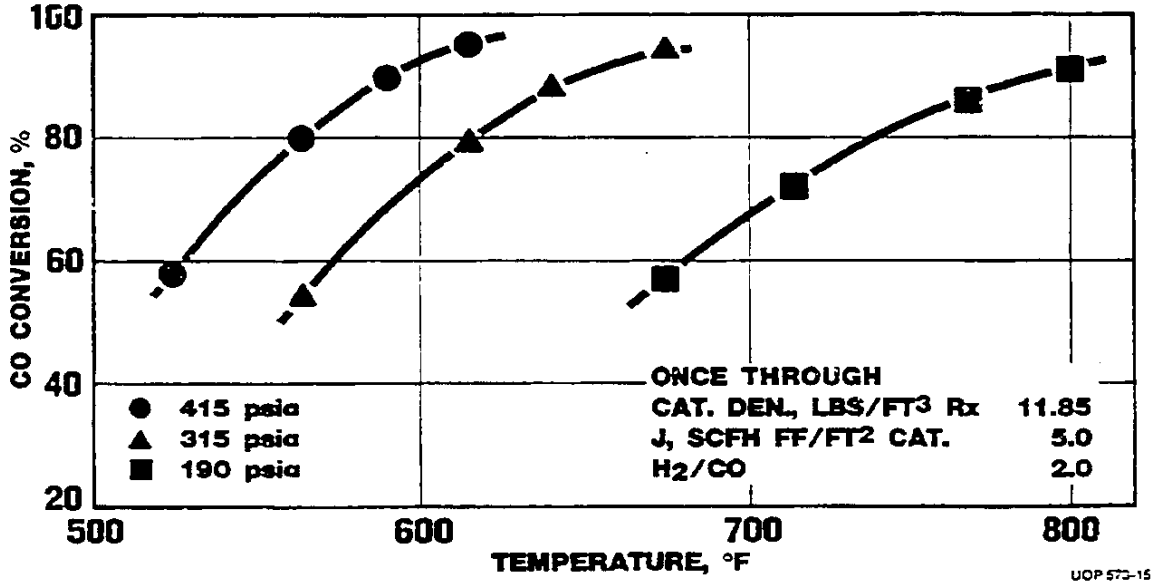


FIGURE 4.3-5

FISCHER TROPSCH

TUBE WALL REACTOR
CO CONVERSION vs. TEMPERATURE
VARIABLE J FACTOR

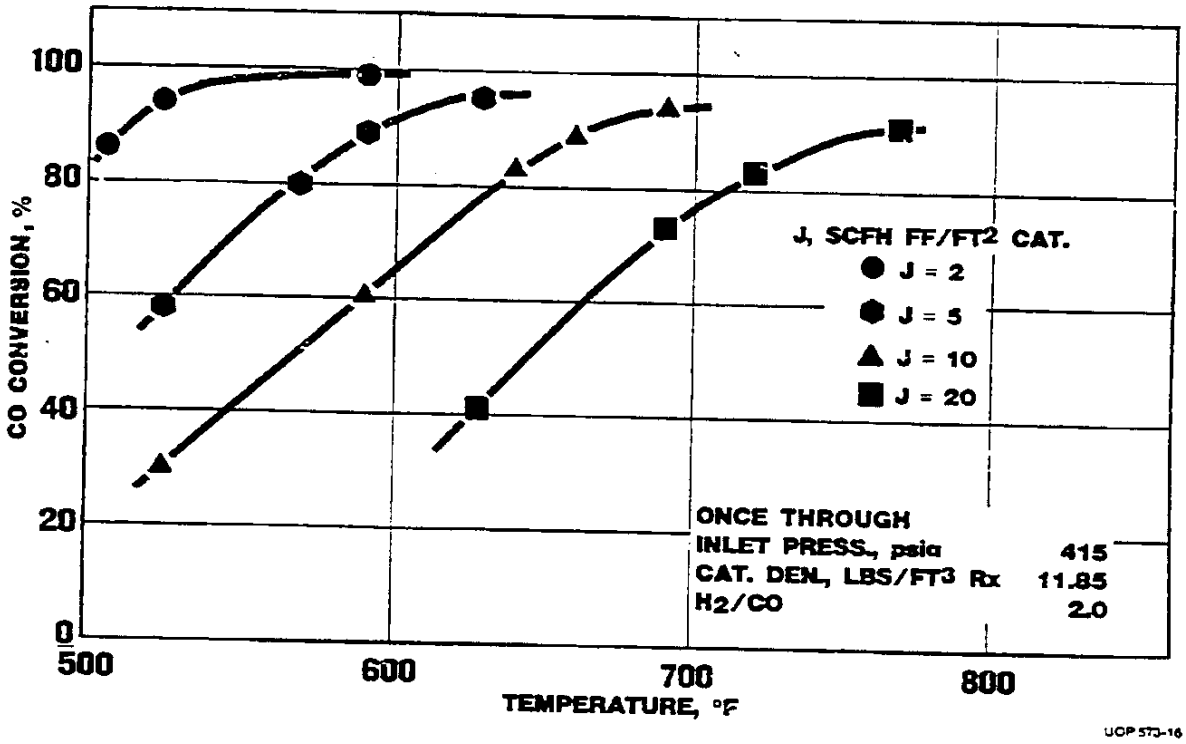


FIGURE 4.3-6

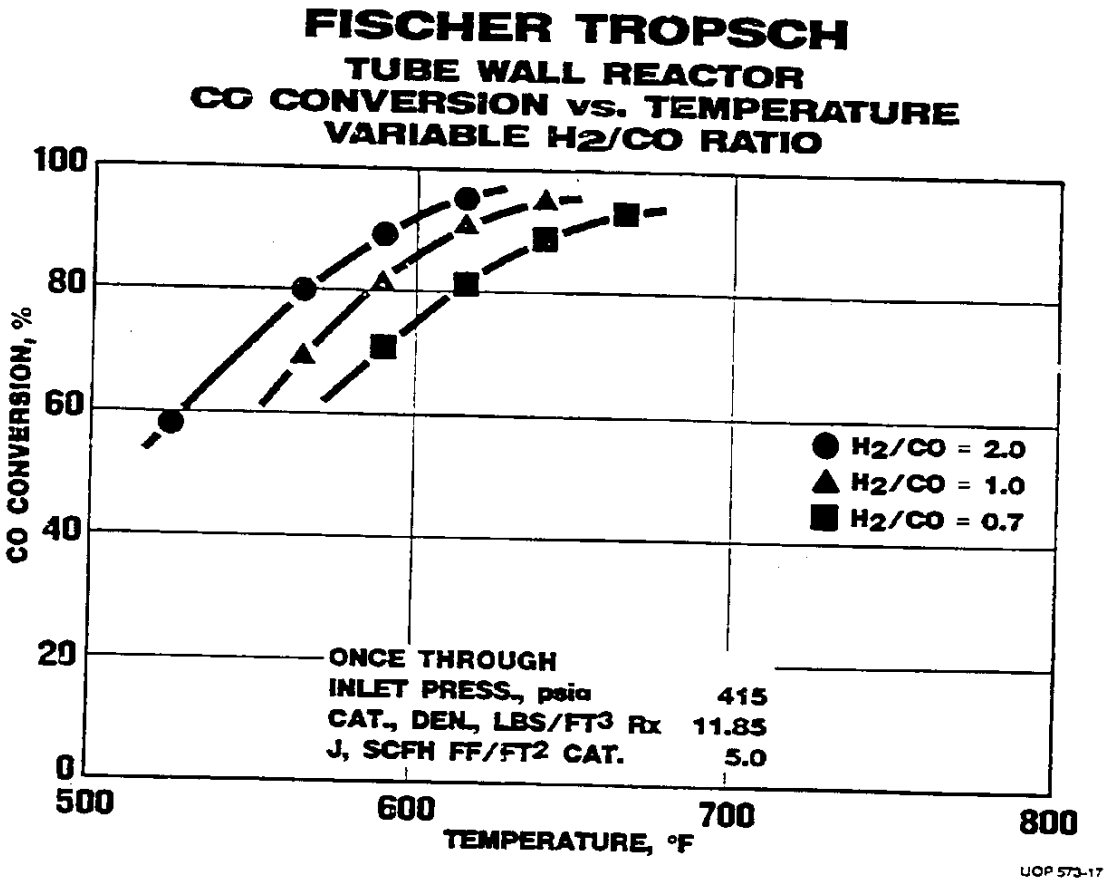

FISCHER TROPSCH
TUBE WALL REACTOR
CO CONVERSION vs. TEMPERATURE
VARIABLE H2/CO RATIO
100
80
60
40
20
0
CO CONVERSION, %
500
600
700
800
TEMPERATURE, °F
H2/CO = 2.0
H2/CO = 1.0
H2/CO = 0.7
ONCE THROUGH
INLET PRESS., psia 415
CAT., DEN., LBS/FT3 Rx 11.85
J, SCFH FF/FT2 CAT. 5.0
UOP 573-17

FIGURE 4.3-7

FISCHER TROPSCH

TUBE WALL REACTOR
DEGREE OF POLYMERIZATION vs. TEMPERATURE
VARIABLE PRESSURE

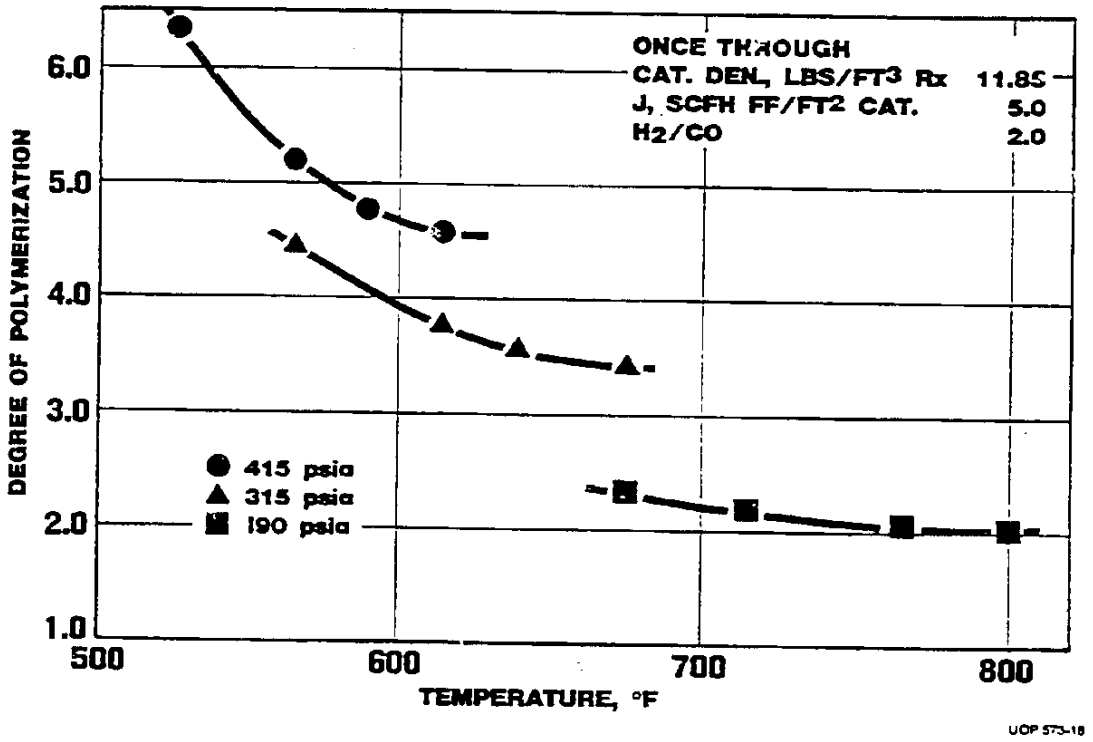


FIGURE 4.3-8

FISCHER TROPSCH

TUBE WALL REACTOR
DEGREE OF POLYMERIZATION vs. TEMPERATURE
VARIABLE J FACTOR

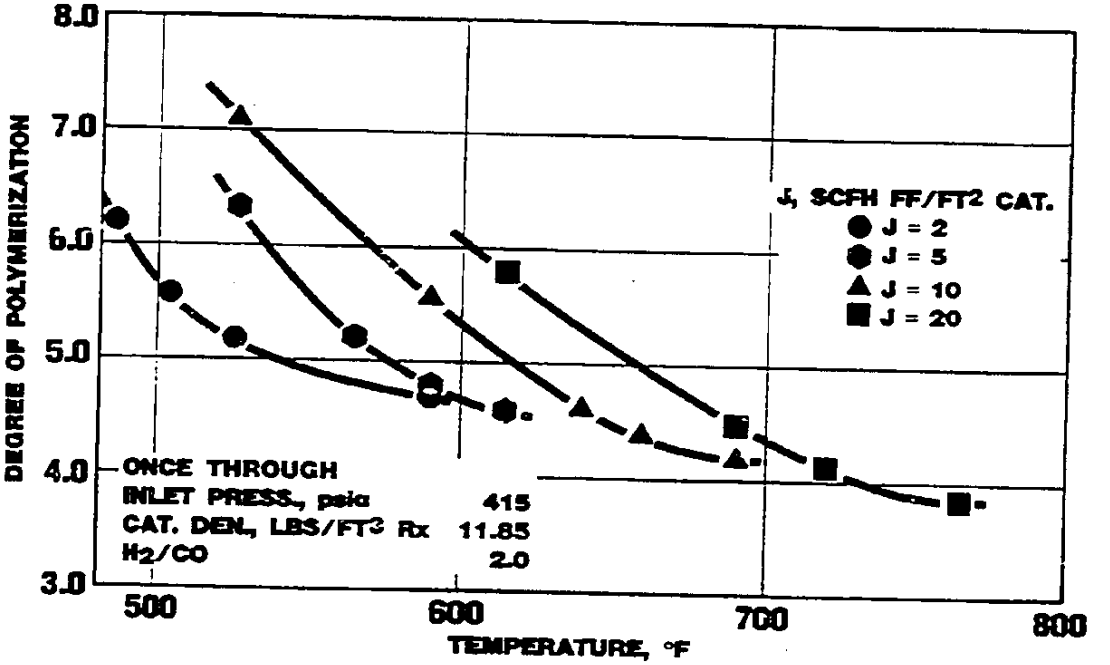


FIGURE 4.3-9

FISCHER TROPSCH

TUBE WALL REACTOR
DEGREE OF POLYMERIZATION vs. TEMPERATURE
VARIABLE H_2/CO RATIO

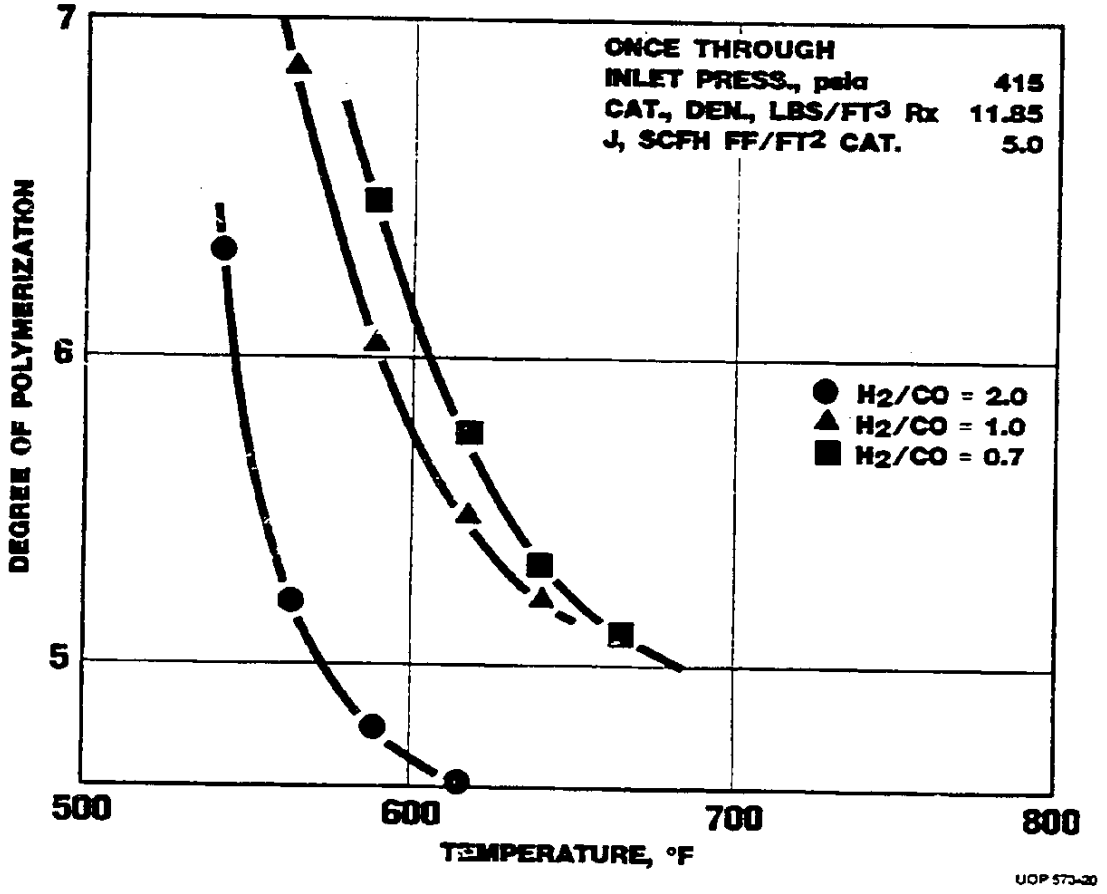


FIGURE 4.3-10

FISCHER TROPSCH

TUBE WALL REACTOR

DEGREE OF POLYMERIZATION vs. CO CONVERSION VARIABLE H_2/CO

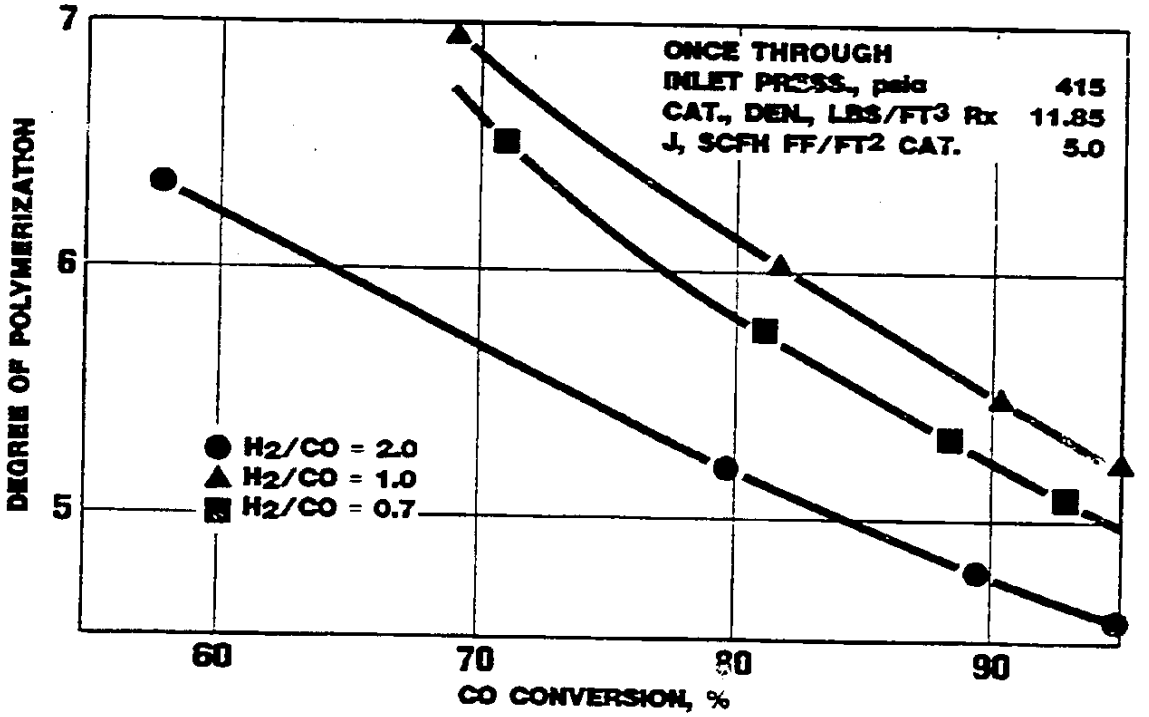


FIGURE 4.3-11

FISCHER TROPSCH

TUBE WALL REACTOR

DEGREE OF POLYMERIZATION vs. TEMPERATURE

VARIABLE RECYCLE TO FEED RATIO

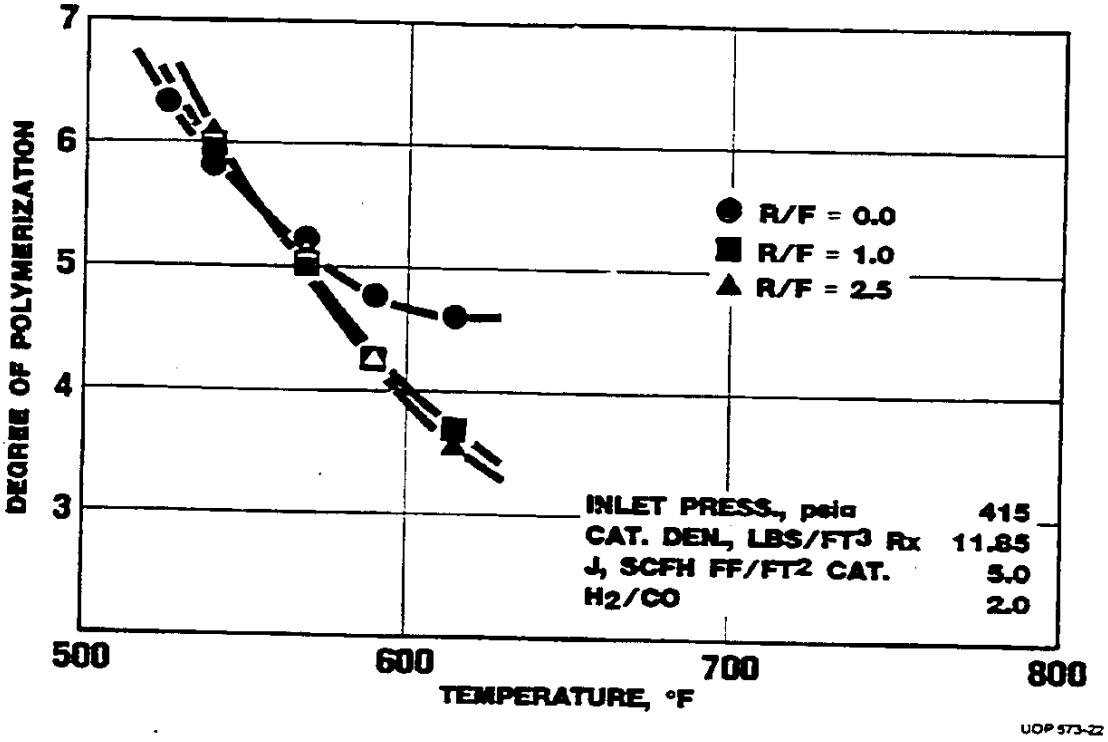
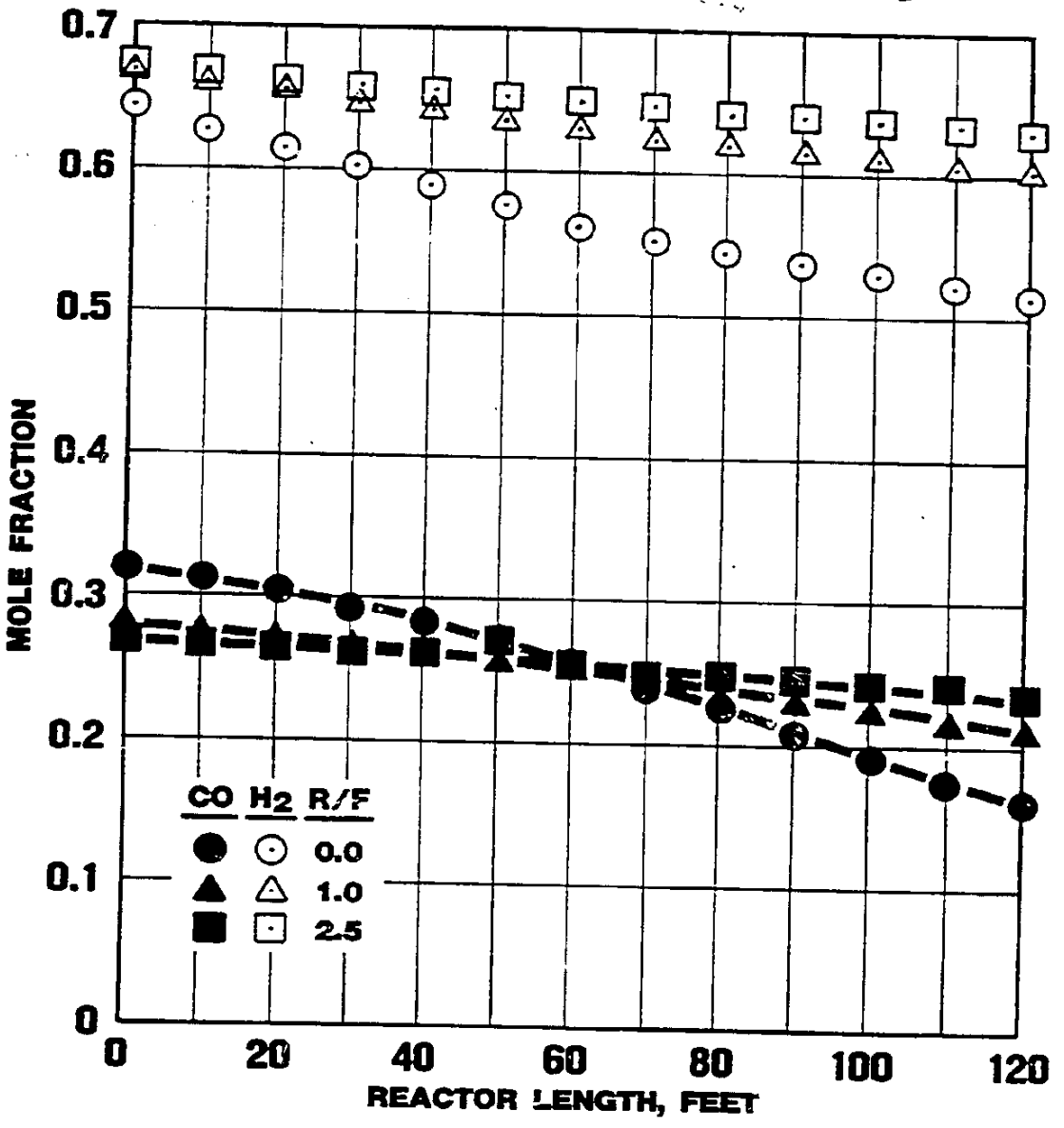


FIGURE 4.3-12

FISCHER TROPSCH

TUBE WALL REACTOR
H_2 AND CO MOLE FRACTIONS vs. REACTOR LENGTH (T = 539°F)



UOP 573-23

FIGURE 4.3-13

FISCHER TROPSCH

TUBE WALL REACTOR
H_2 AND CO MOLE FRACTIONS vs. REACTOR LENGTH (T = 615°F)

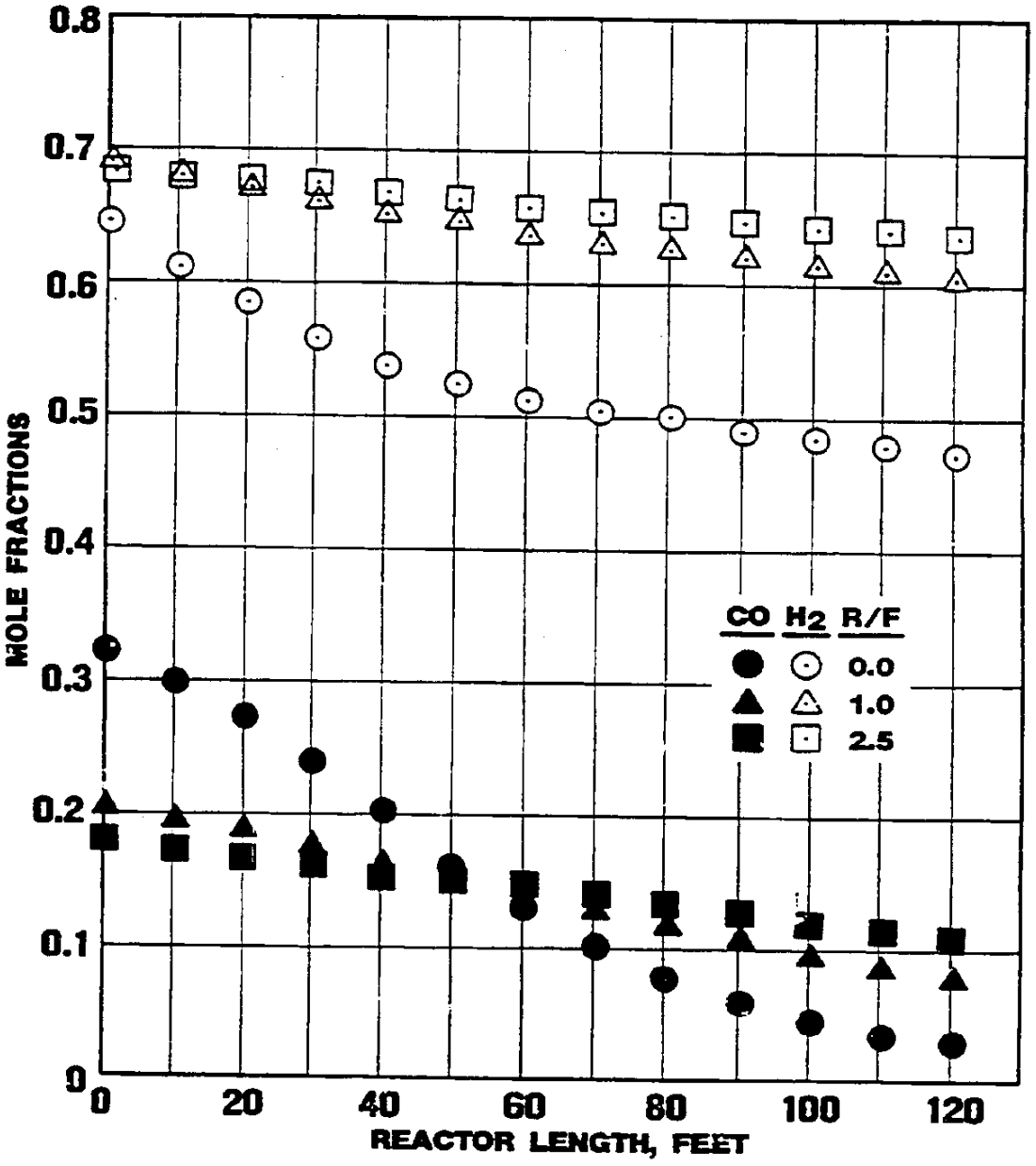
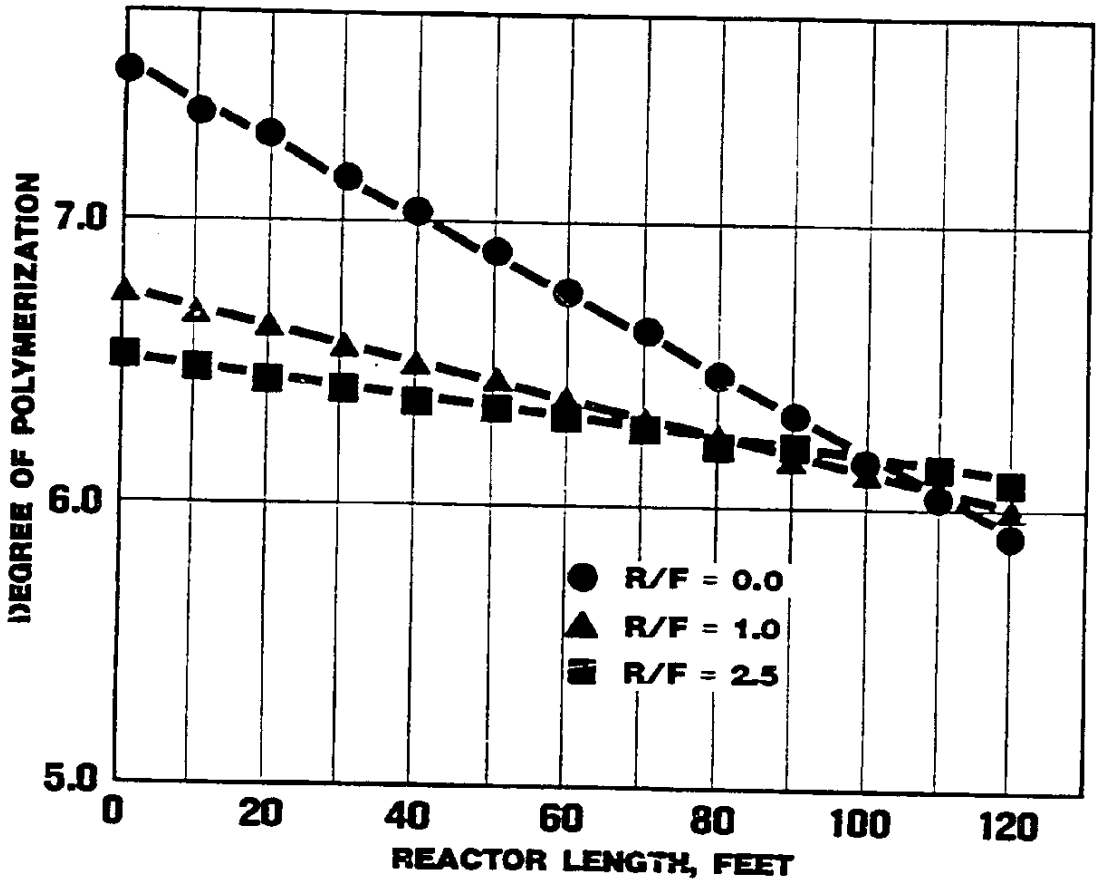


FIGURE 4.3-14

FISCHER TROPSCH

TUBE WALL REACTOR
DEGREE OF POLYMERIZATION vs. REACTOR LENGTH (T = 539°F)

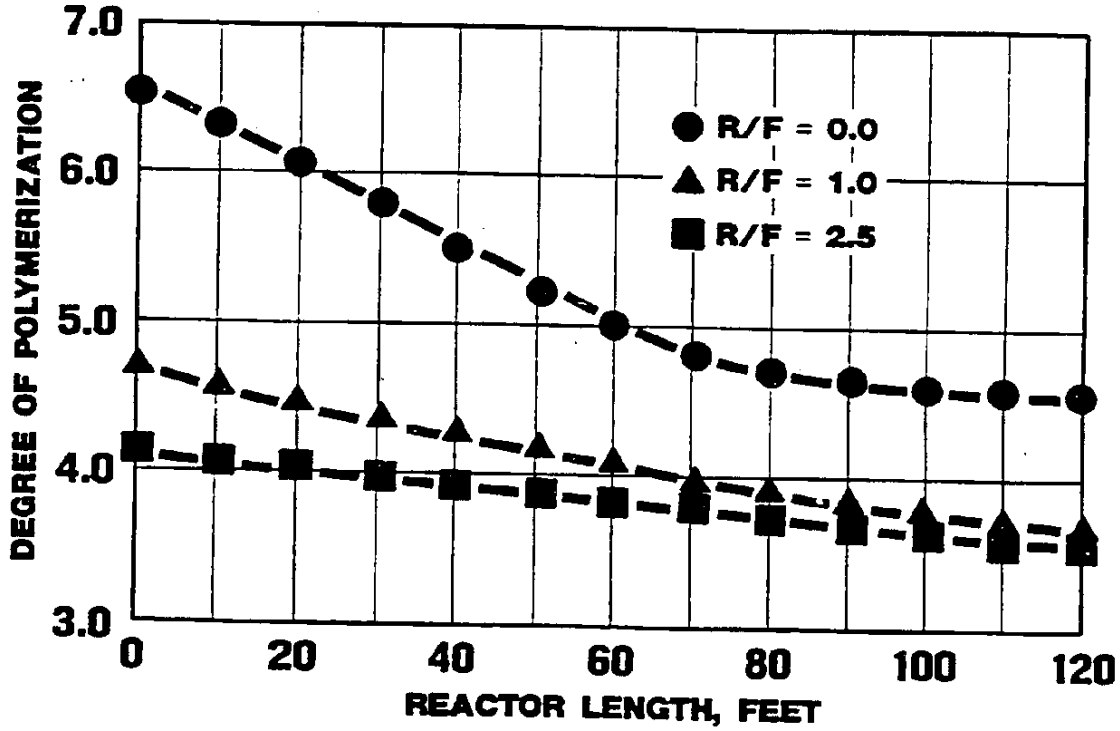


UOP 573-24

FIGURE 4.3-15

FISCHER TROPSCH

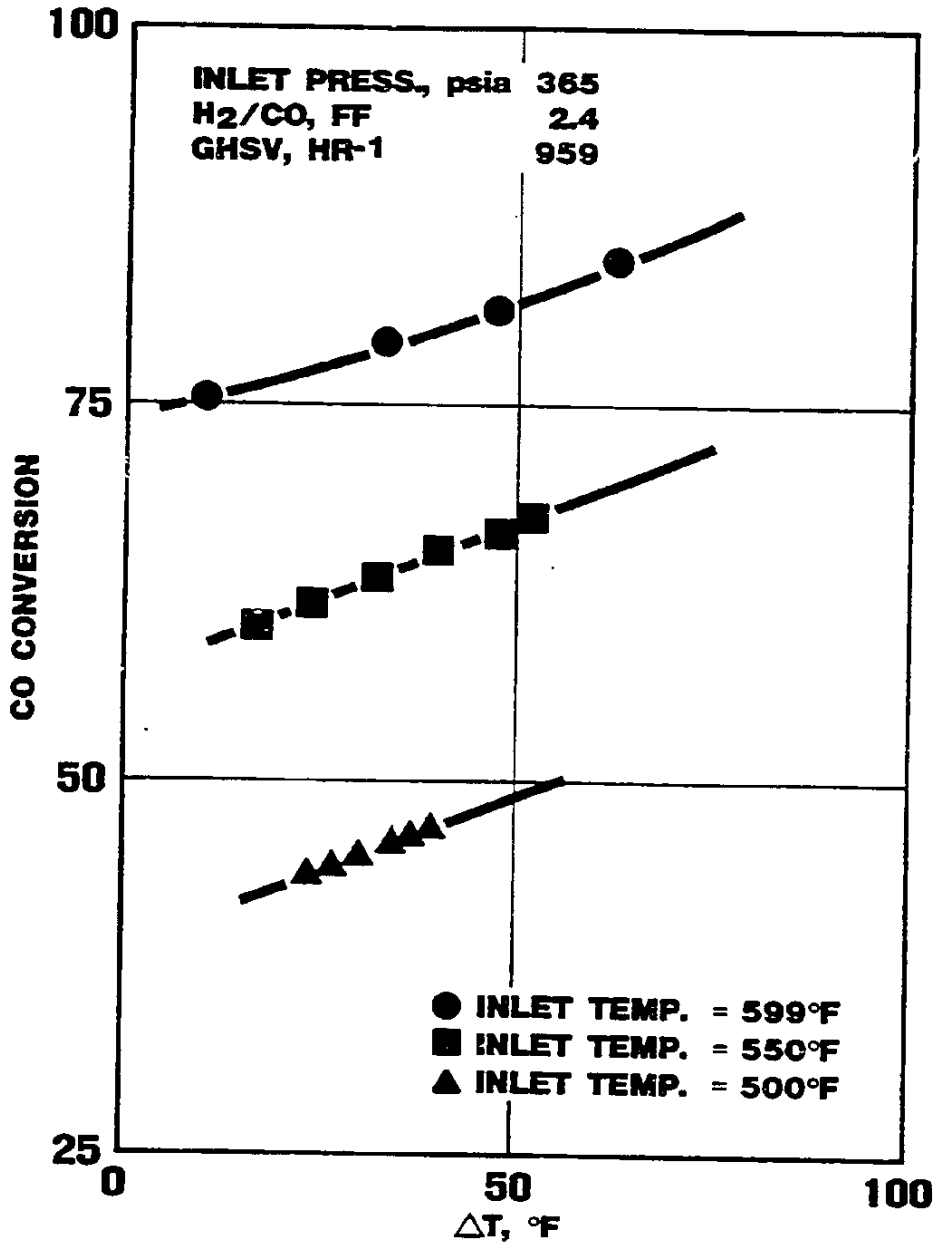
TUBE WALL REACTOR
DEGREE OF POLYMERIZATION vs. REACTOR LENGTH (T = 615°F)



UOP 573-25

FIGURE 4.3-16

FISCHER-TROPSCH
ENTRAINED BED REACTOR
CO CONVERSION vs. REACTOR ΔT

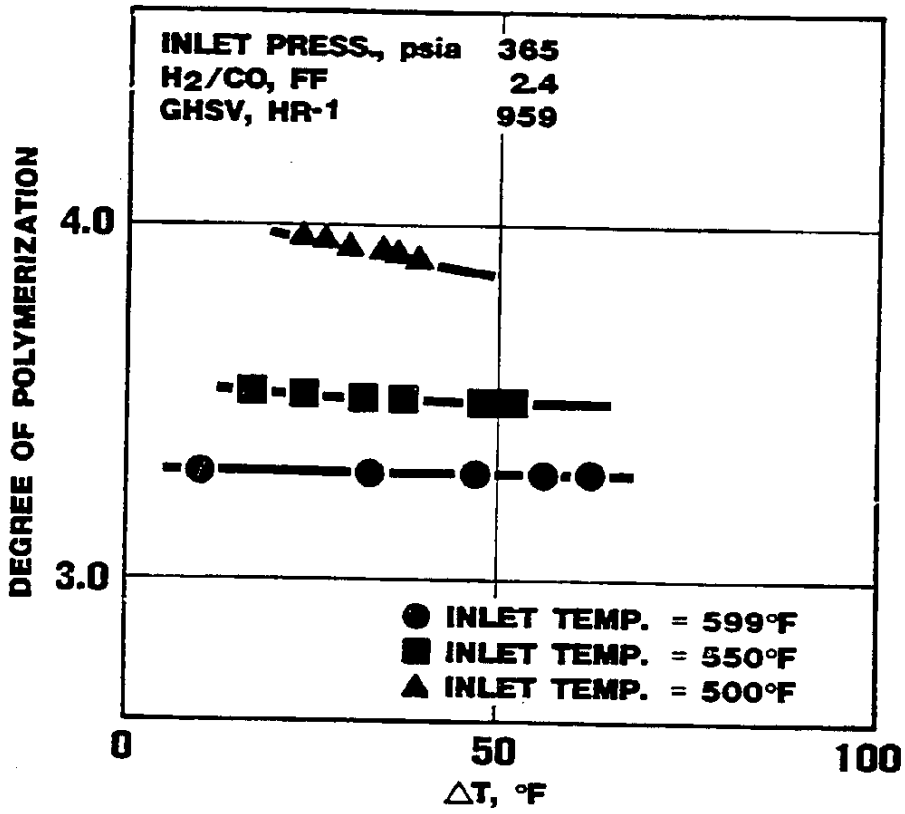


UOP 573-6

FIGURE 4.3-17

FISCHER-TROPSCH

ENTRAINED BED REACTOR
DEGREE OF POLYMERIZATION vs. REACTOR ΔT

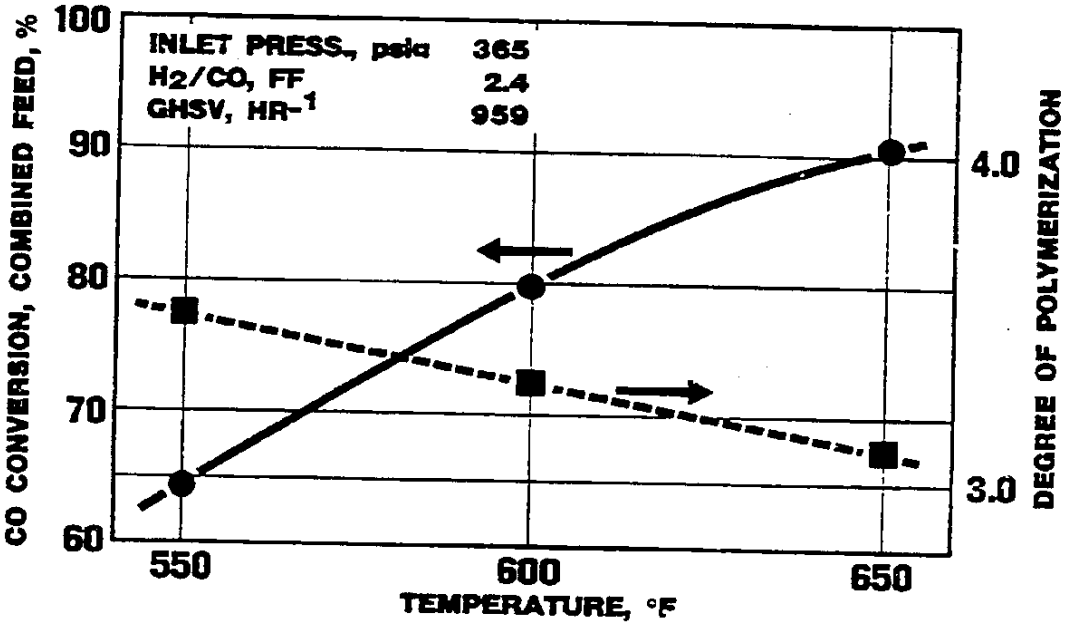


UOP 573-7

FIGURE 4.3-18

FISCHER TROPSCH

ENTRAINED BED REACTOR
CO CONVERSION vs. TEMPERATURE
DEGREE OF POLYMERIZATION vs. TEMPERATURE

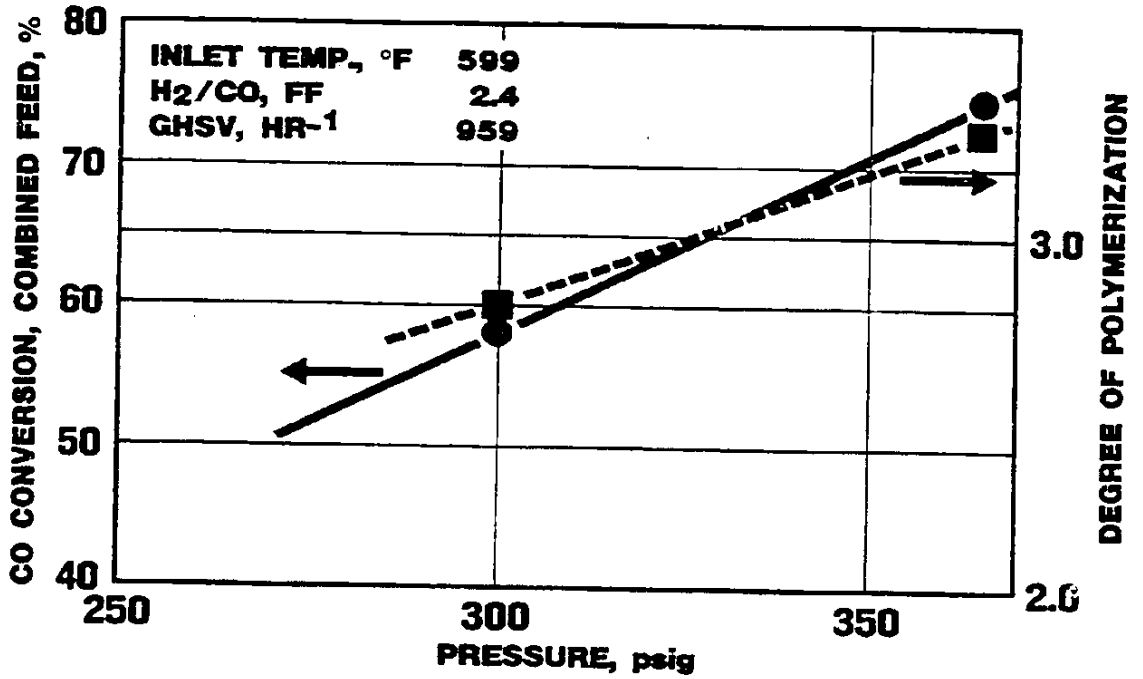


UOP 573-26

FIGURE 4.3-19

FISCHER TROPSCH

ENTRAINED BED REACTOR
CO CONVERSION vs. PRESSURE
DEGREE OF POLYMERIZATION vs. PRESSURE

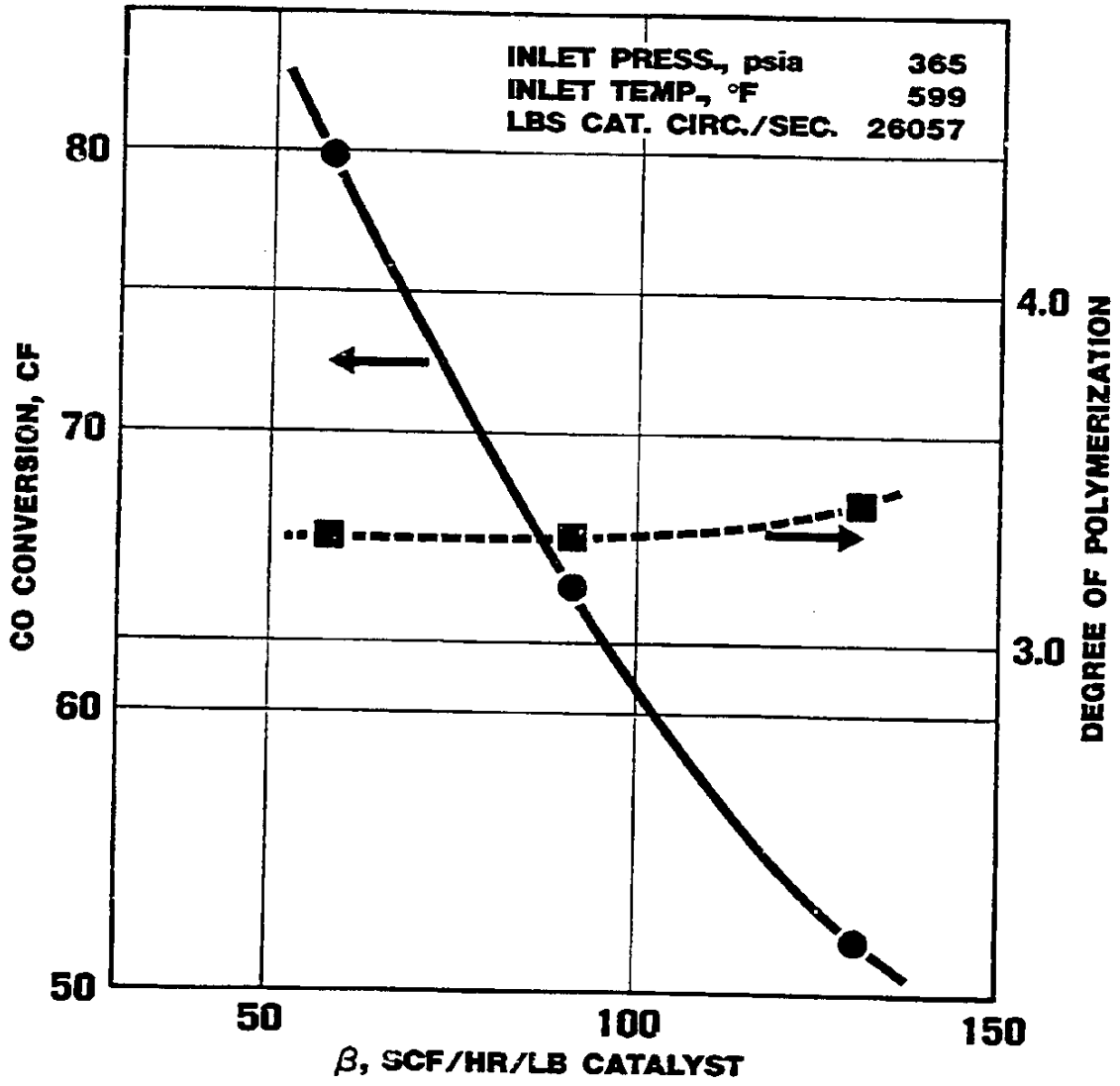


UOP 573-27

FIGURE 4.3-20

FISCHER-TROPSCH

ENTRAINED BED REACTOR
CO CONVERSION vs. β
DEGREE OF POLYMERIZATION vs. β



UOP 573-10

FIGURE 4.3-21

FISCHER-TROPSCH

ENTRAINED BED REACTOR
CO CONVERSION vs. CATALYST CIRCULATION
DEGREE OF POLYMERIZATION vs. CATALYST CIRCULATION

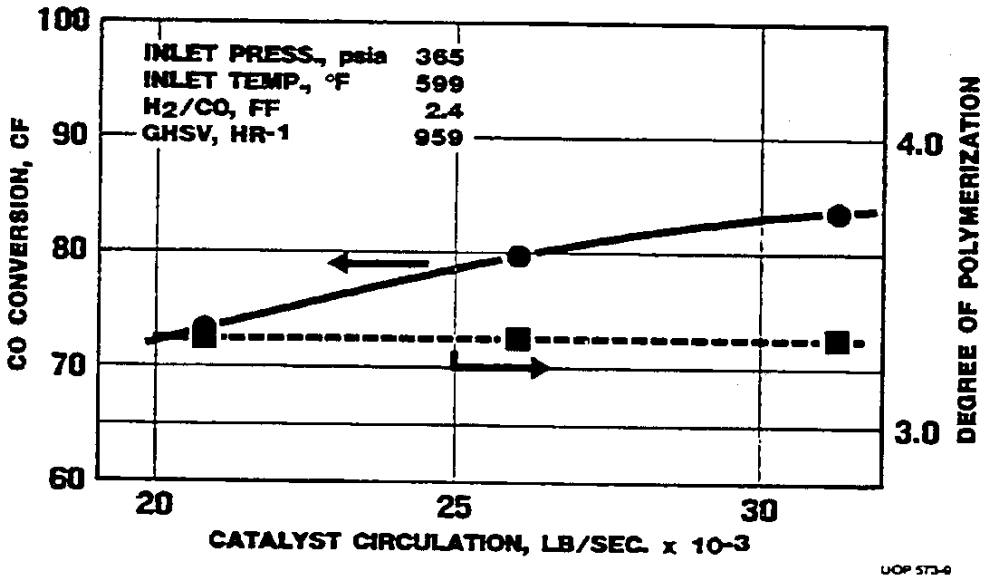


FIGURE 4.3-22

FISCHER TROPSCH

ENTRAINED BED REACTOR
CO CONVERSION vs. H_2/CO RATIO
DEGREE OF POLYMERIZATION vs. H_2/CO

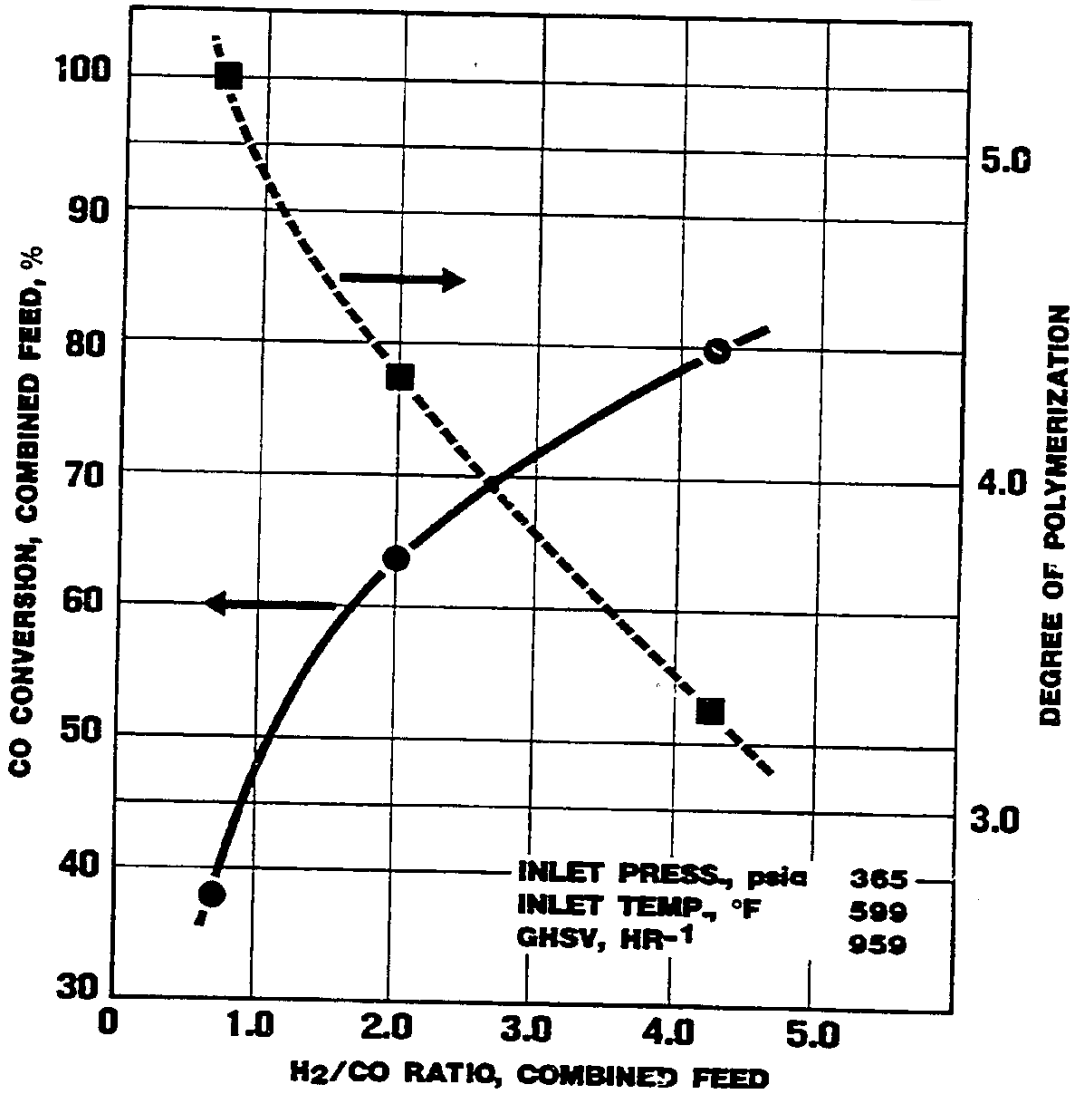


FIGURE 4.3-23

FISCHER-TROPSCH

ENTRAINED BED REACTOR AVERAGE CATALYST DENSITY vs. CATALYST CIRCULATION RATE

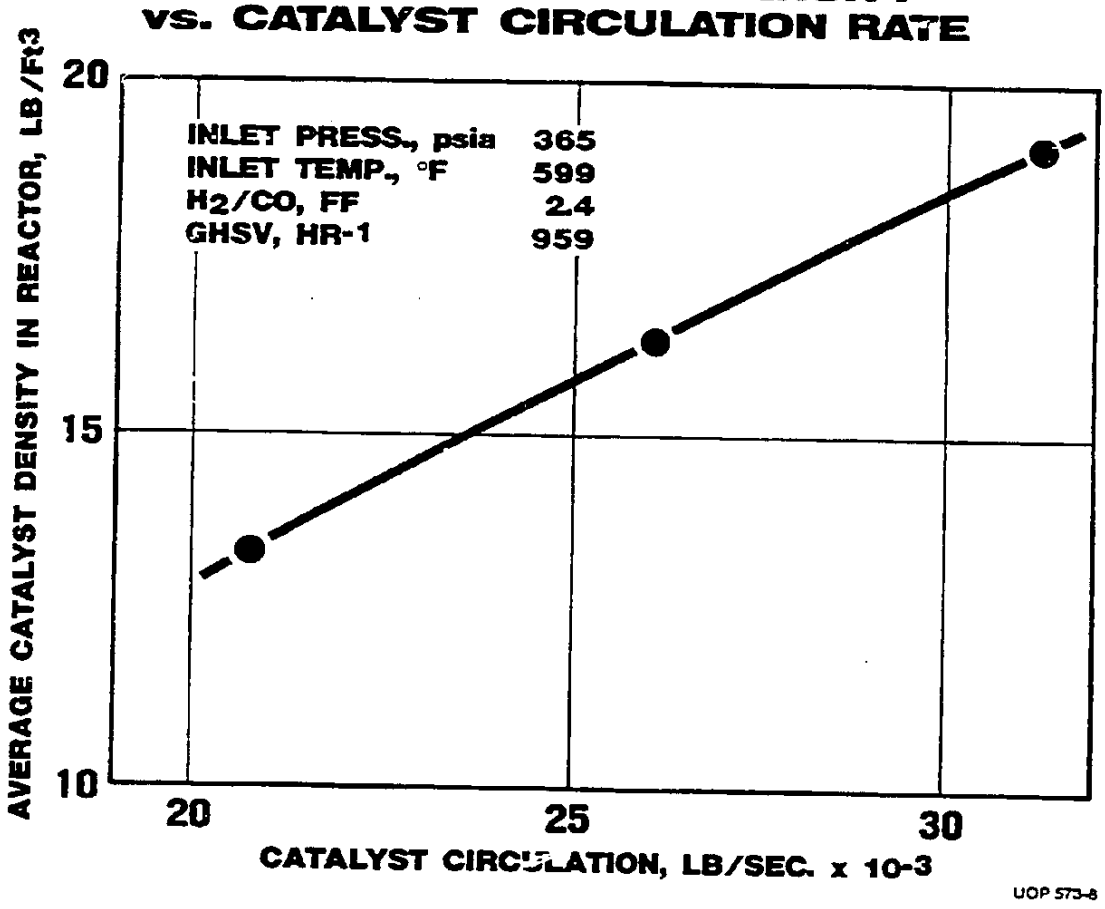
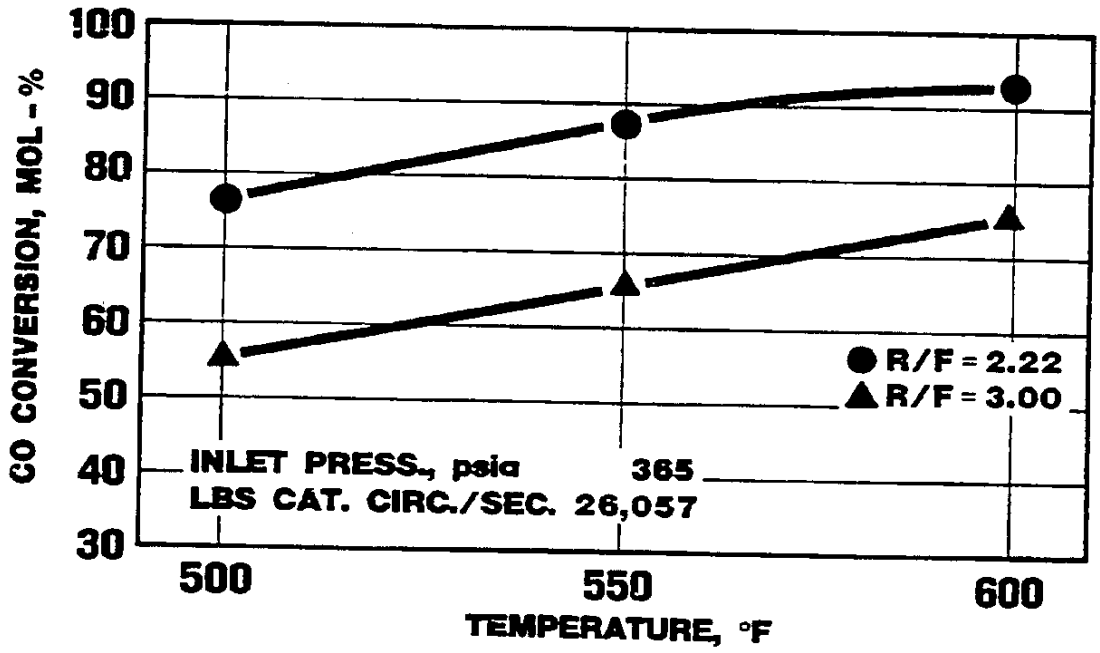


FIGURE 4.3-24

FISCHER TROPSCH
ENTRAINED BED REACTOR
CO CONVERSION vs. TEMPERATURE



UOP 573-29

FIGURE 4.3-25

FISCHER TROPSCH

ENTRAINED BED REACTOR

DEGREE OF POLYMERIZATION vs. TEMPERATURE

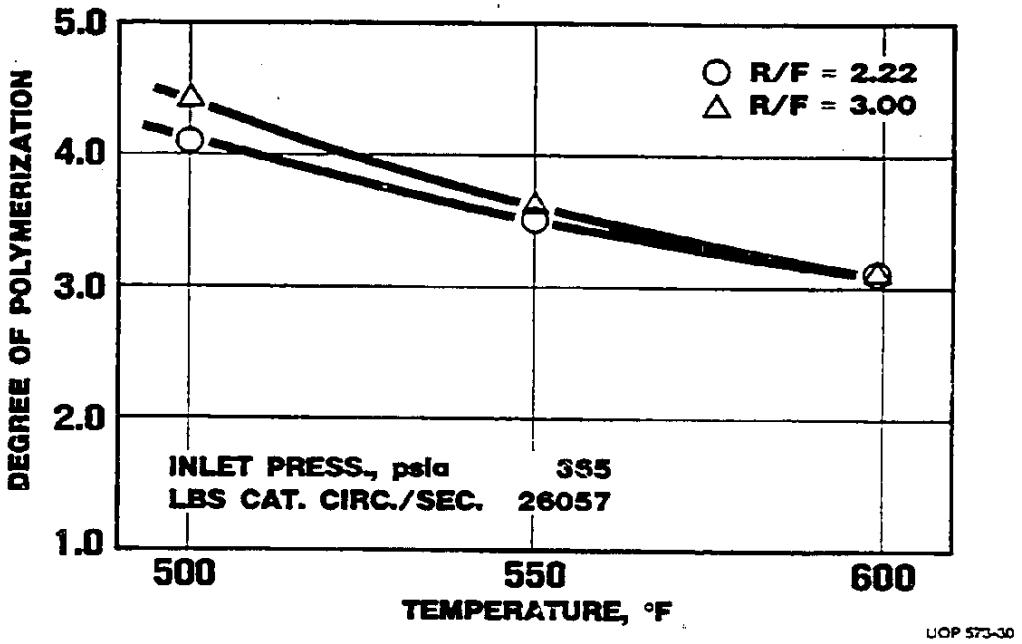
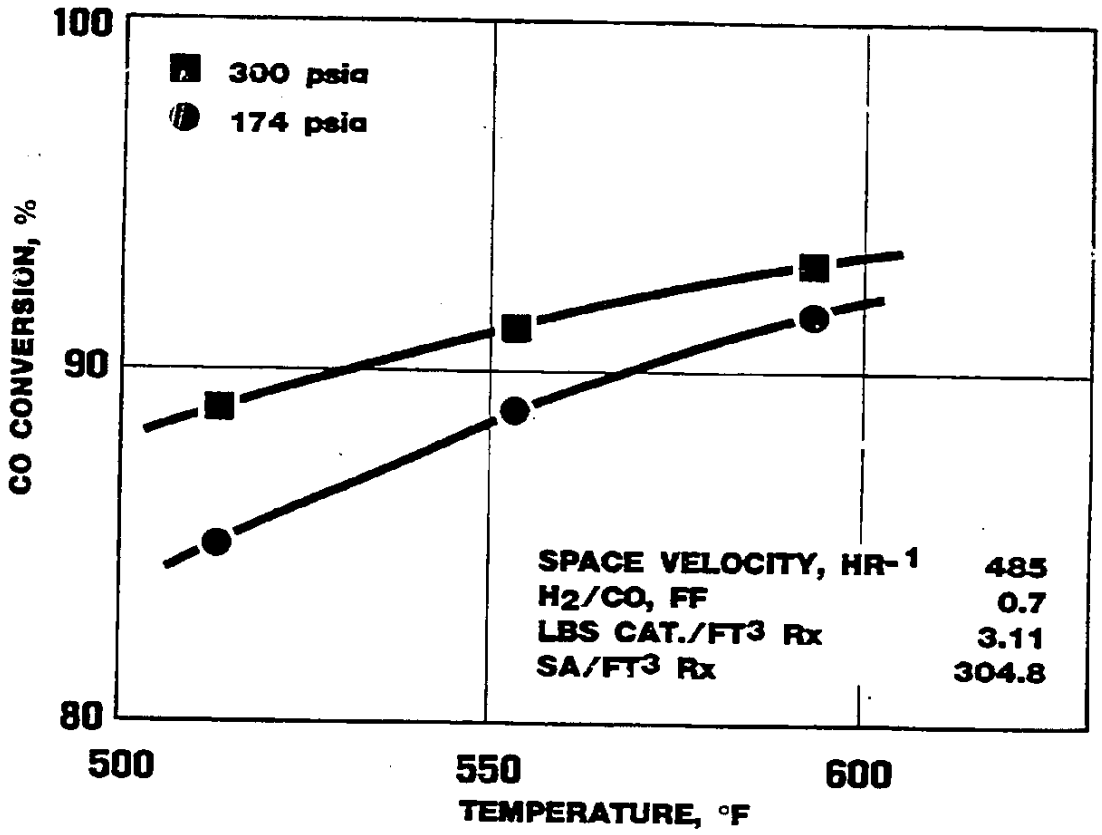


FIGURE 4.3-26

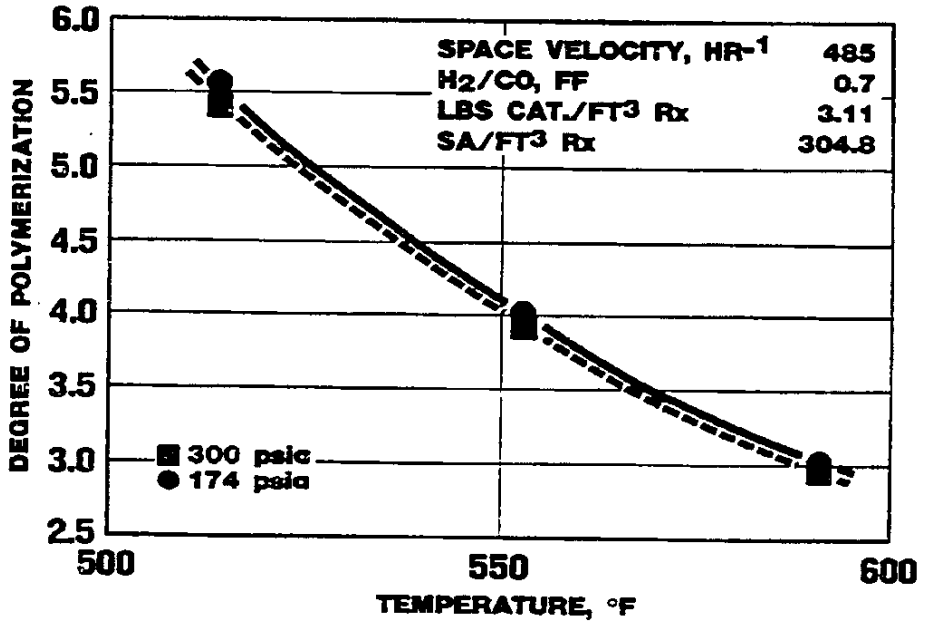
FISCHER TROPSCH
SLURRY REACTOR
CO CONVERSION vs. TEMPERATURE



UOP 573-31

FIGURE 4.3-27

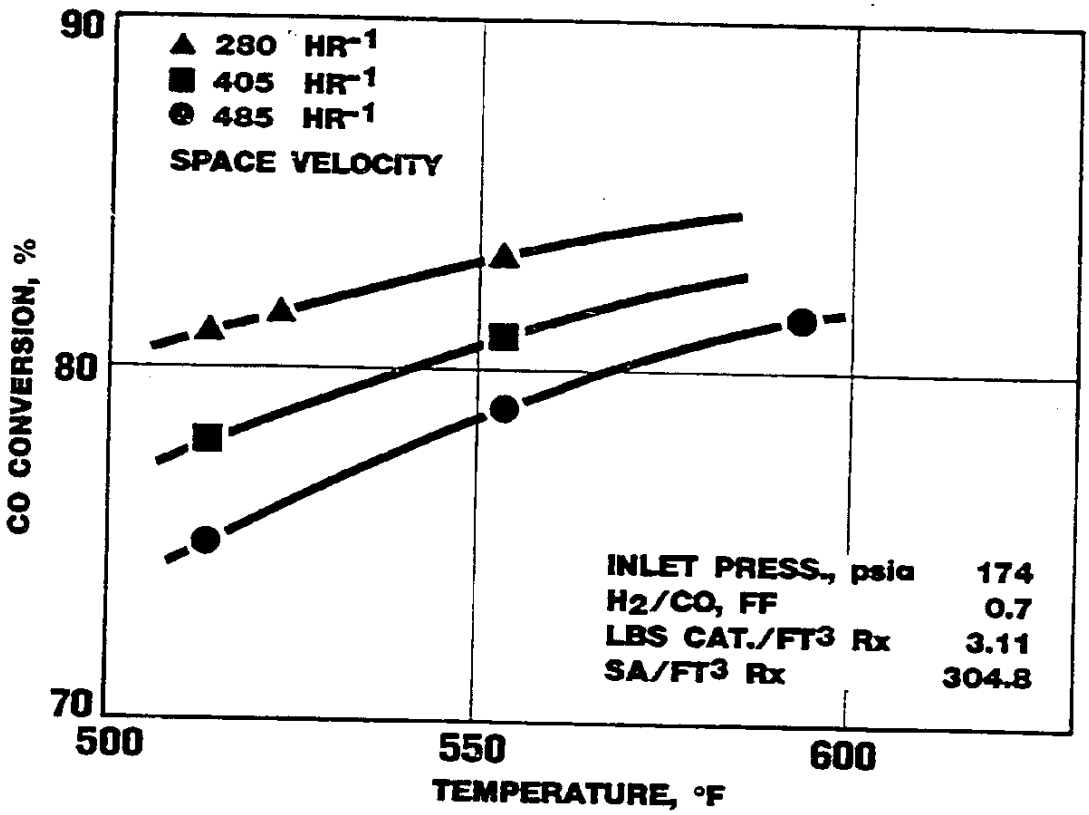
FISCHER TROPSCH
SLURRY REACTOR
DEGREE OF POLYMERIZATION vs. TEMPERATURE



UOP 573-32

FIGURE 4.3-28

FISCHER TROPSCH
SLURRY REACTOR
CO CONVERSION vs. TEMPERATURE



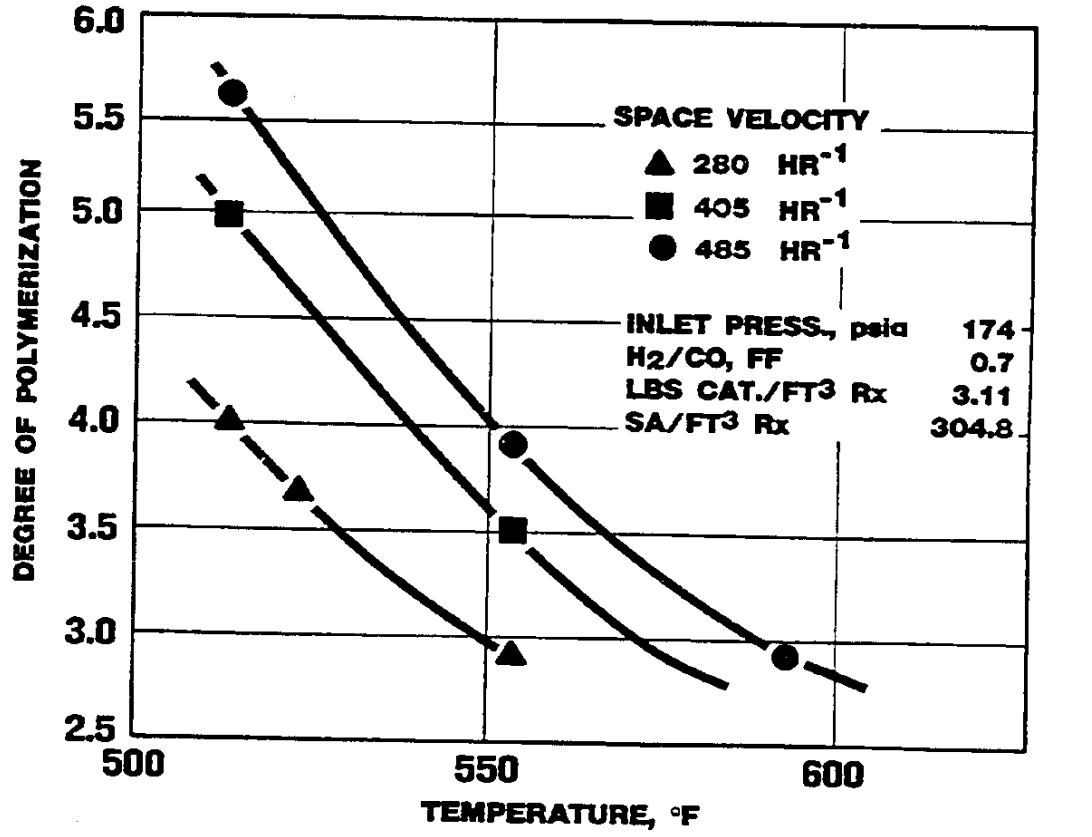
UOP 573-33

FIGURE 4.3-29

FISCHER TROPSCH

SLURRY REACTOR

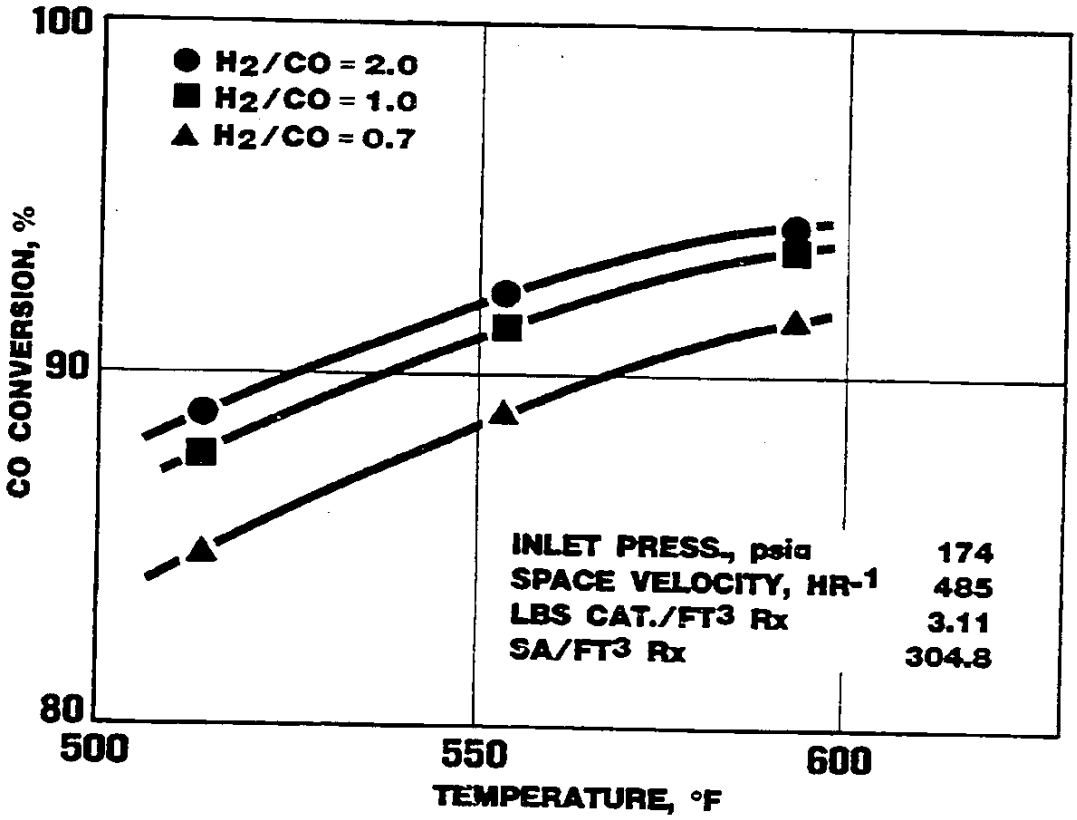
DEGREE OF POLYMERIZATION vs. TEMPERATURE



UOP 573-34

FIGURE 4.3-30

FISCHER TROPSCH
SLURRY REACTOR
CO CONVERSION vs. TEMPERATURE



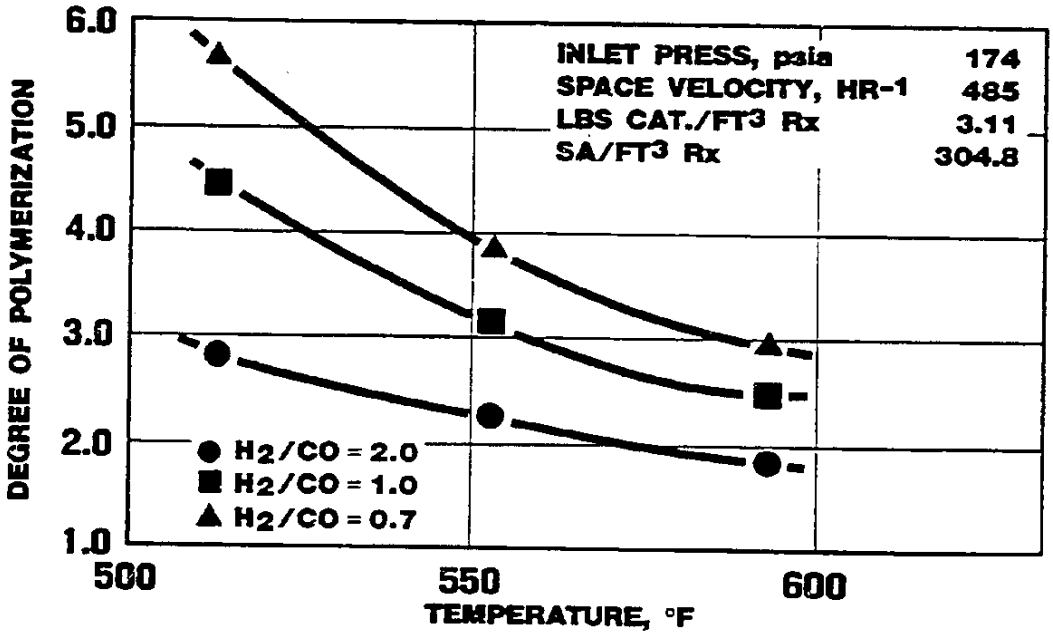
UOP 573-35

FIGURE 4.3-31

FISCHER TROPSCH

SLURRY REACTOR

DEGREE OF POLYMERIZATION vs. TEMPERATURE

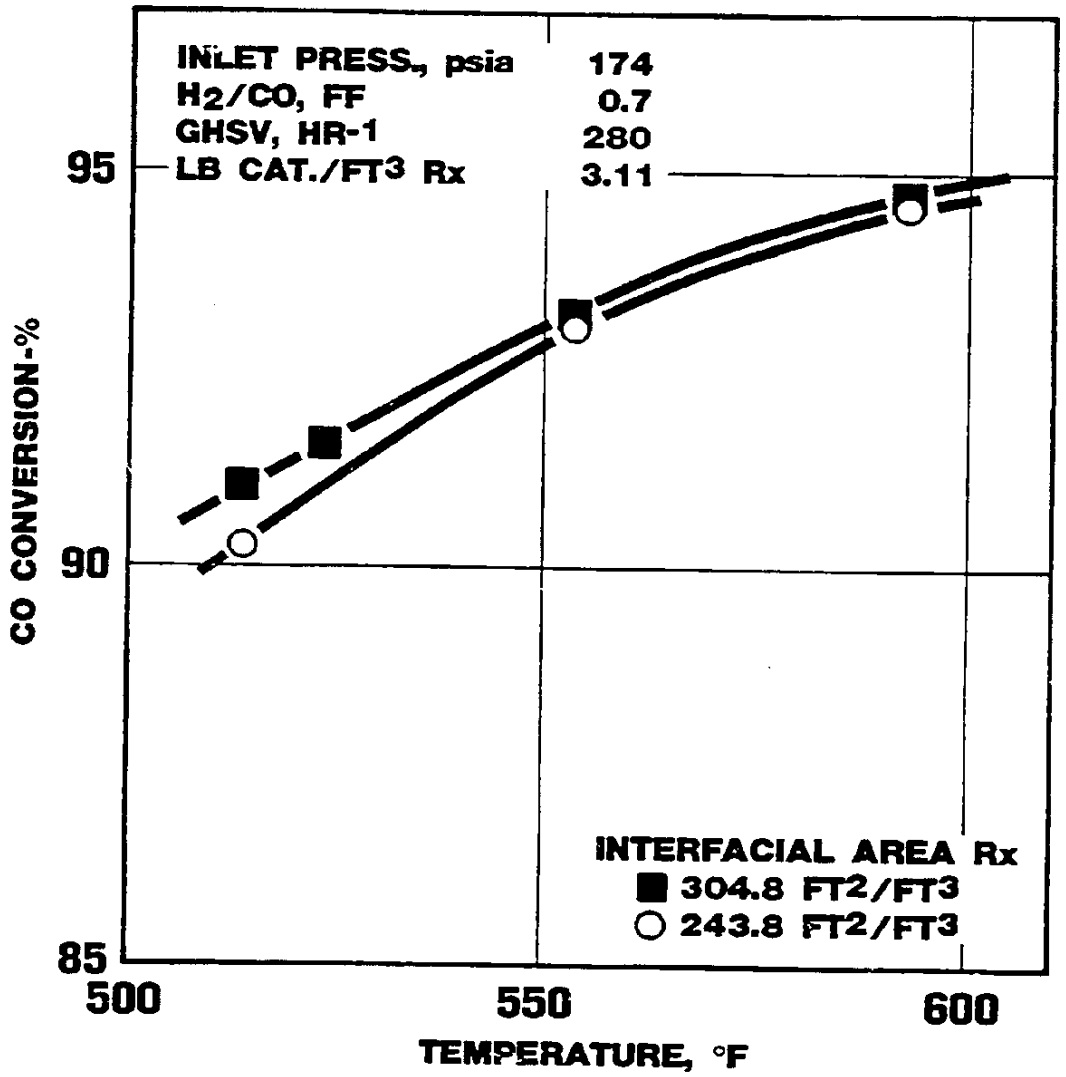


UOP 573-36

FIGURE 4.3-32

FISCHER-TROPSCH

SLURRY REACTOR
CO CONVERSION vs. TEMPERATURE

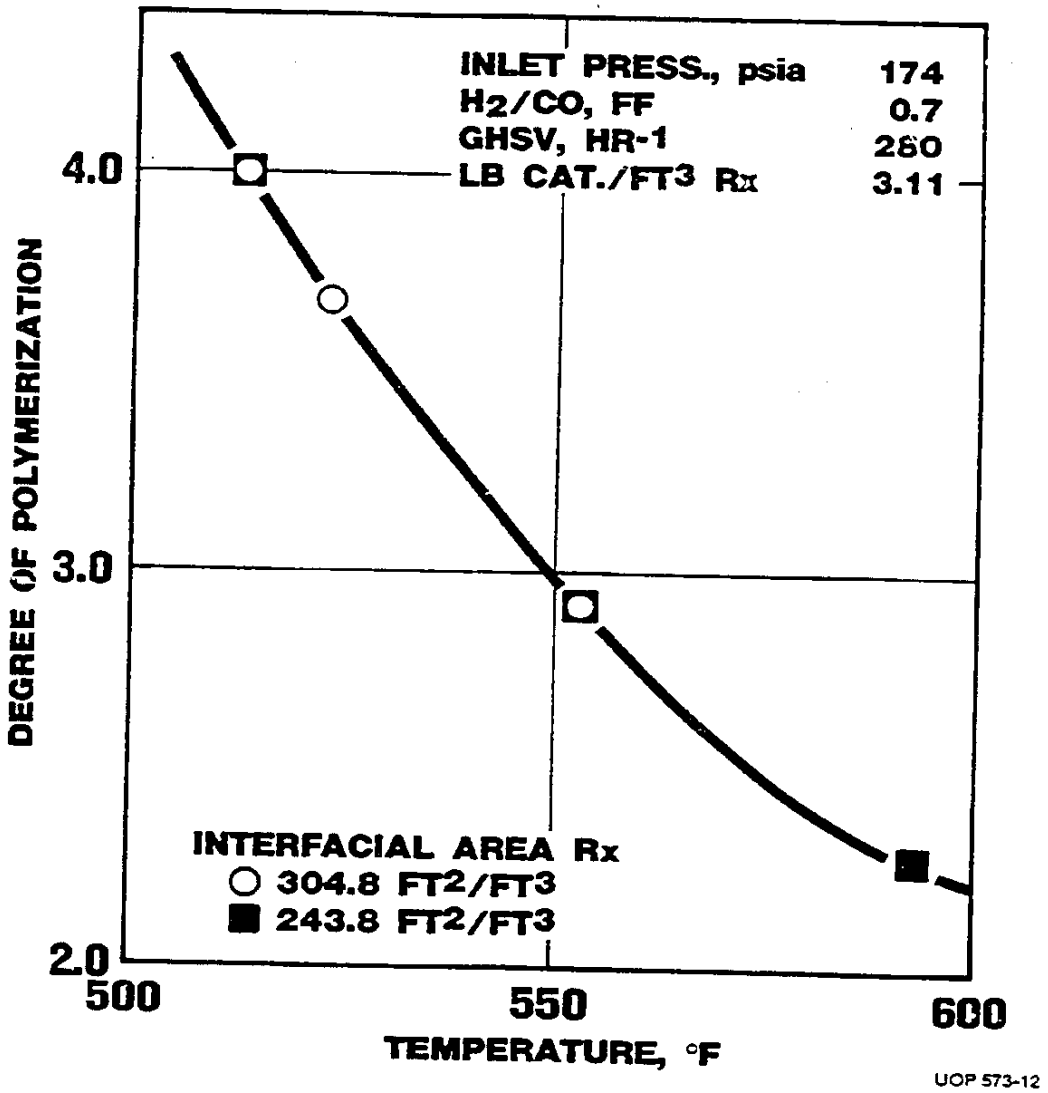


UOP 573-11

FIGURE 4.3-33

FISCHER-TROPSCH

SLURRY REACTOR DEGREE OF POLYMERIZATION vs. TEMPERATURE

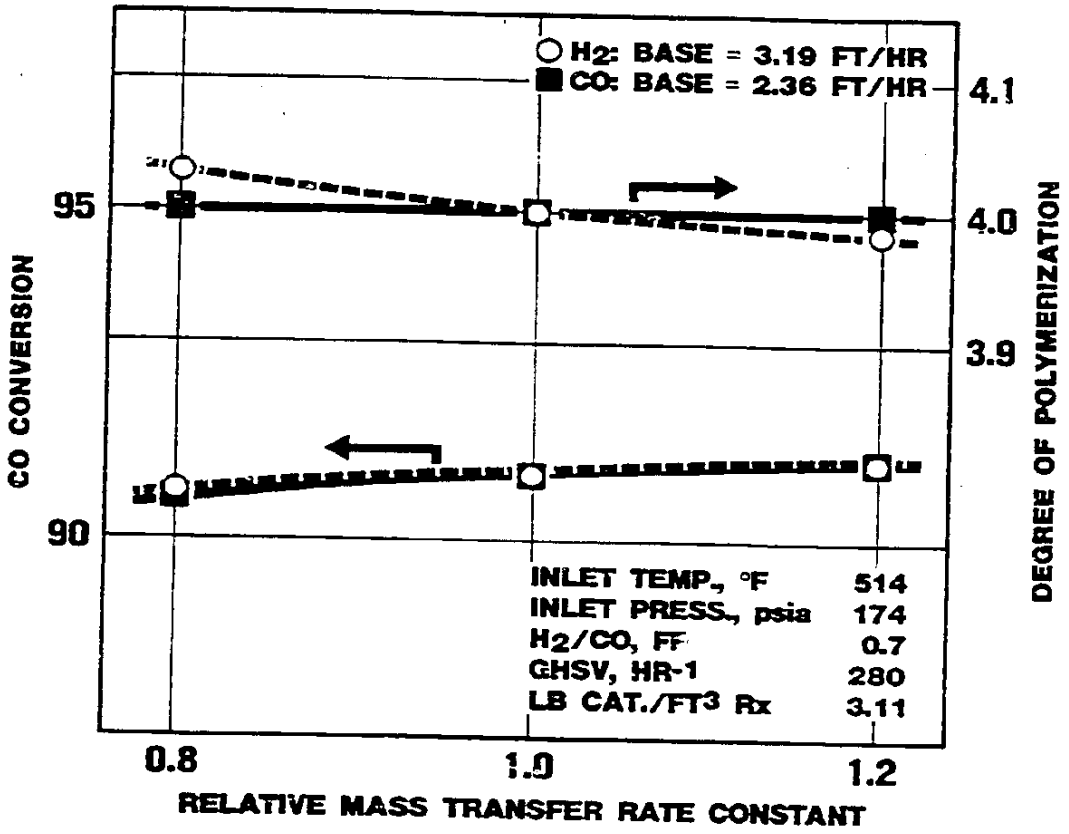


UOP 573-12

FIGURE 4.3-34

FISCHER-TROPSCH

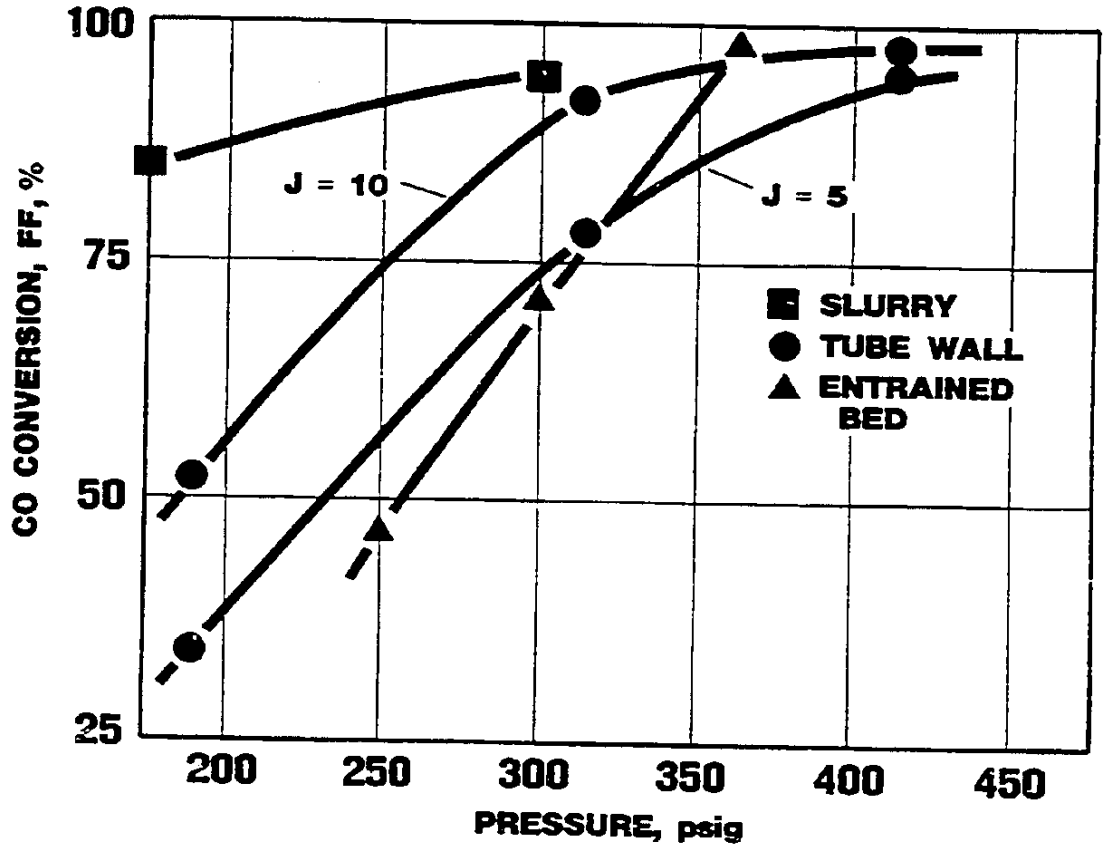
SLURRY REACTOR SYSTEM
CO CONVERSION AND DEGREE OF POLYMERIZATION vs. RELATIVE MASS TRANSFER RATE CONSTANTS



UOP 573-13

FIGURE 4.3-35

FISCHER TROPSCH
REACTOR COMPARISON
CO CONVERSION vs. PRESSURE



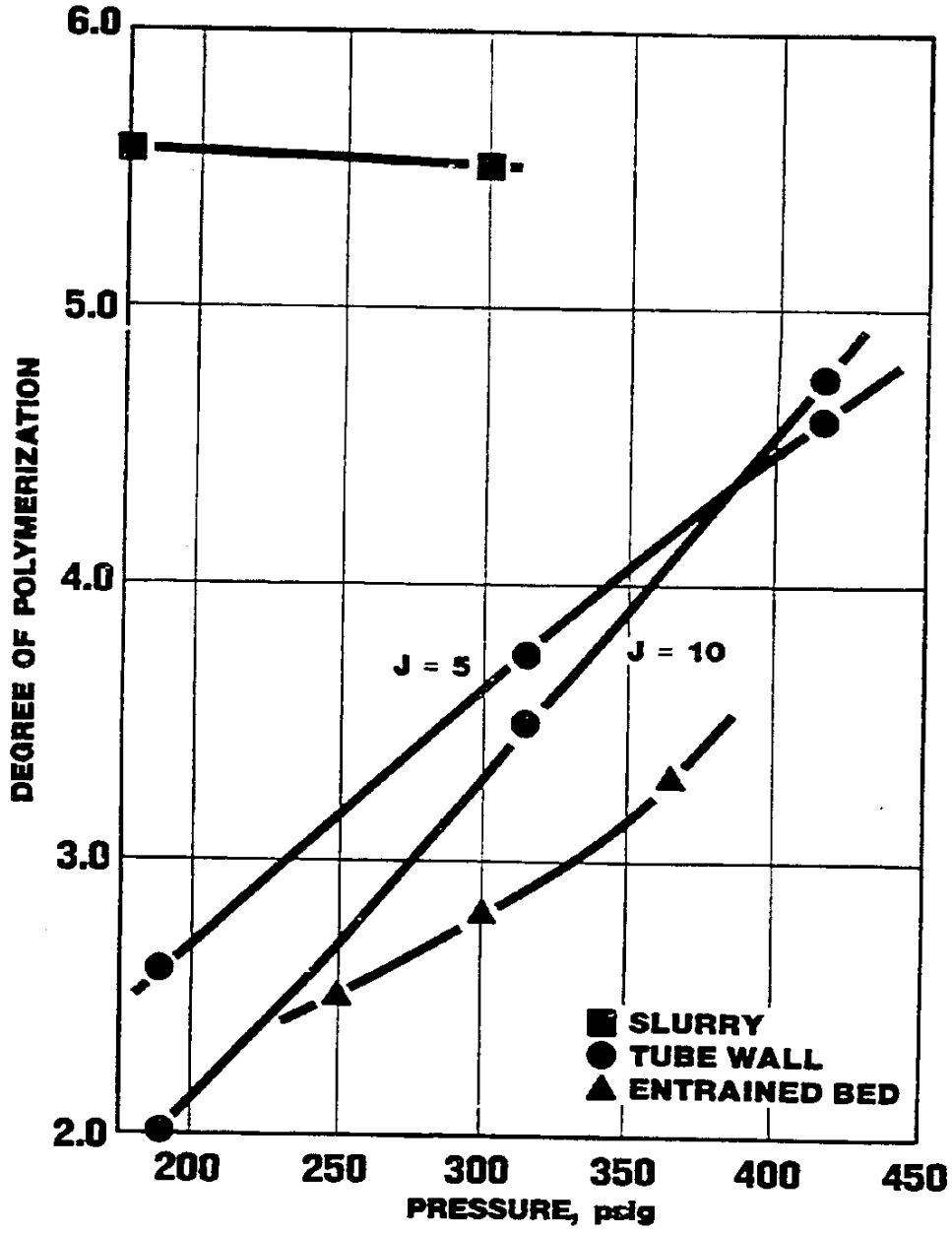
UOP 573-37

FIGURE 4.3-36

FISCHER TROPSCH

REACTOR COMPARISON

DEGREE OF POLYMERIZATION vs. PRESSURE



UOP 573-38

FIGURE 4.3-37

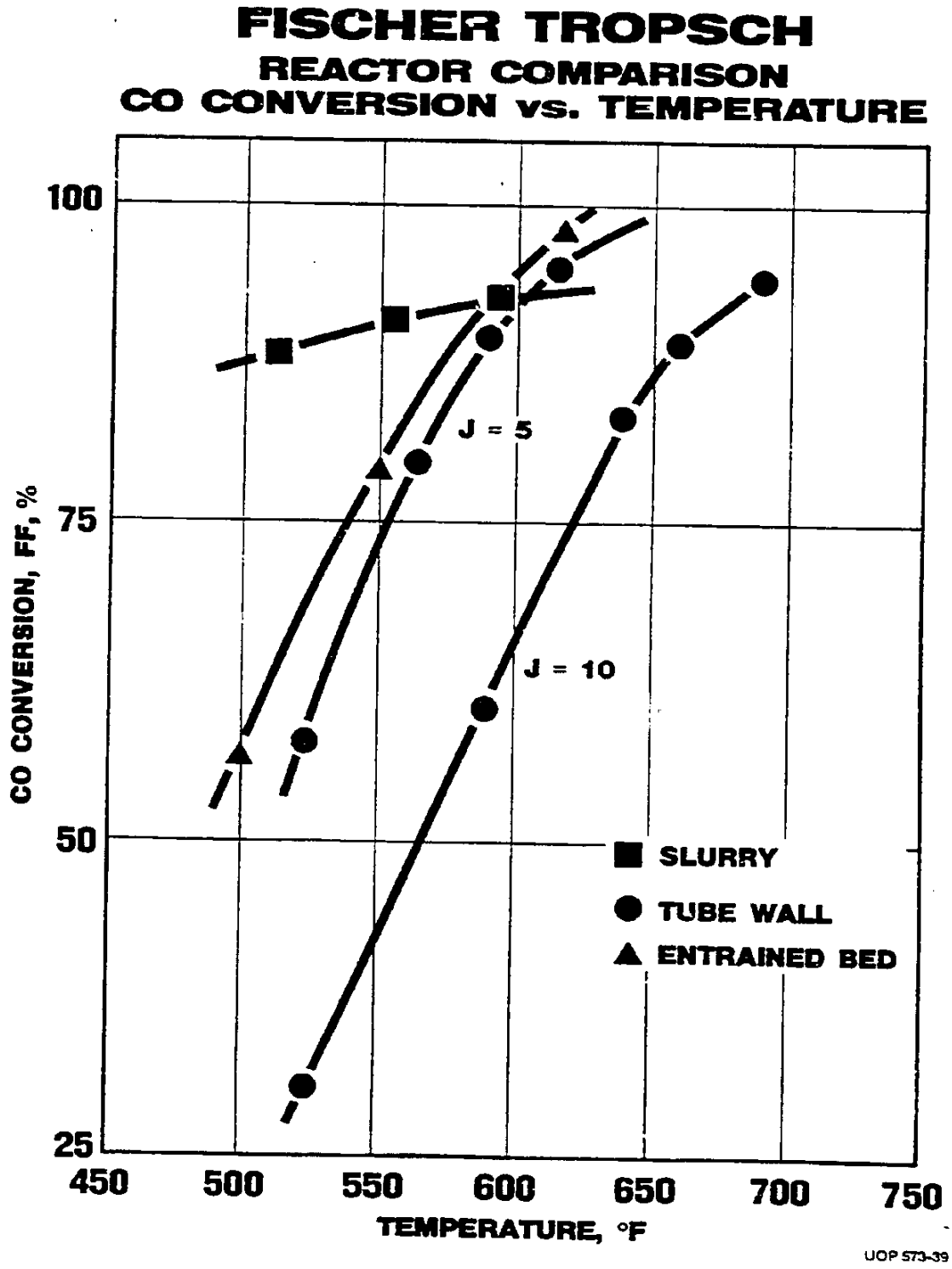

FISCHER TROPSCH
REACTOR COMPARISON
CO CONVERSION vs. TEMPERATURE
100
75
50
25
CO CONVERSION, FF, %
J = 5
J = 10
SLURRY
TUBE WALL
ENTRAINED BED
450
500
550
600
650
700
750
TEMPERATURE, °F
UOP 573-39

FIGURE 4.3-38

FISCHER-TROPSCH

REACTOR COMPARISON

DEGREE OF POLYMERIZATION vs. TEMPERATURE

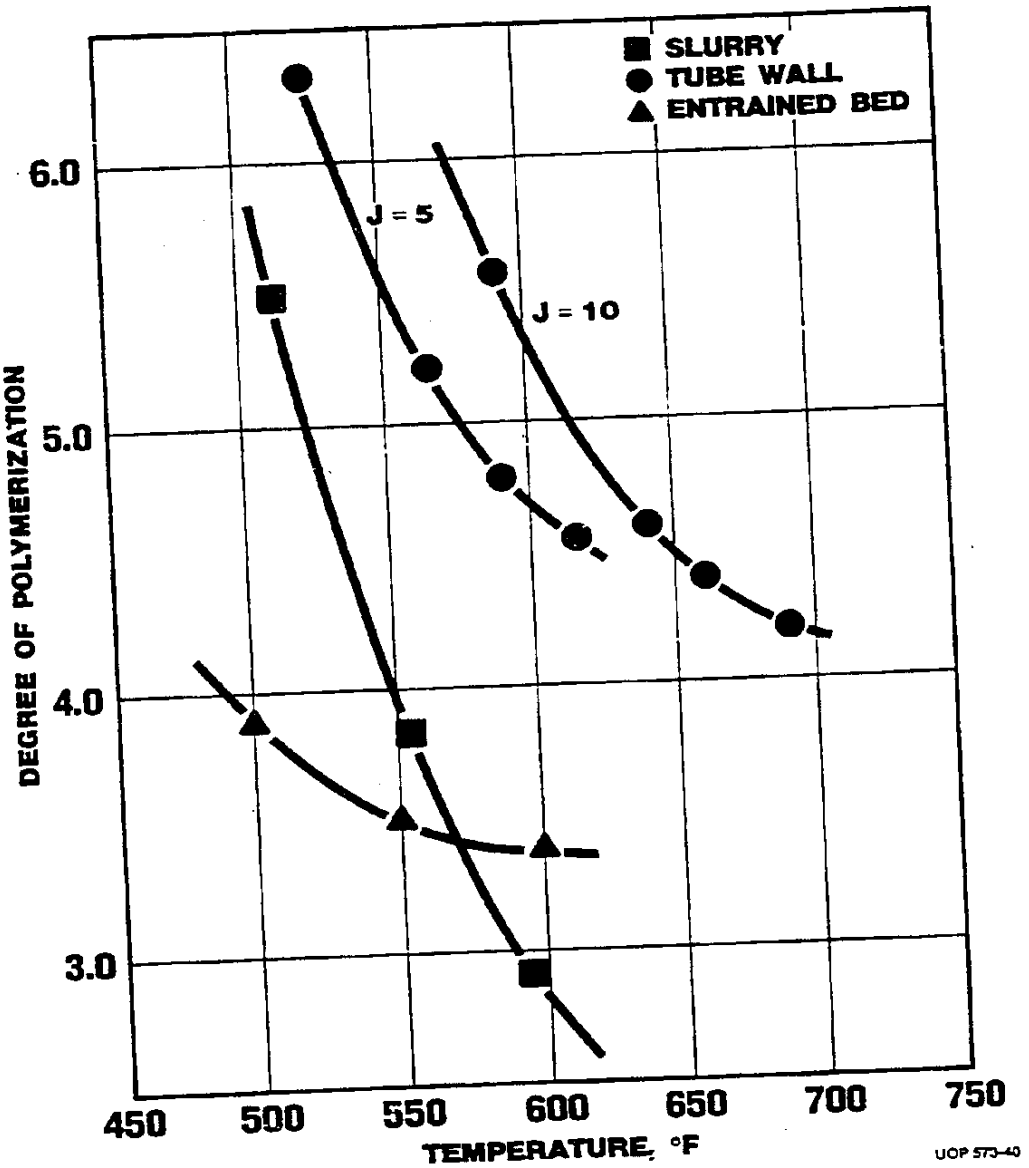
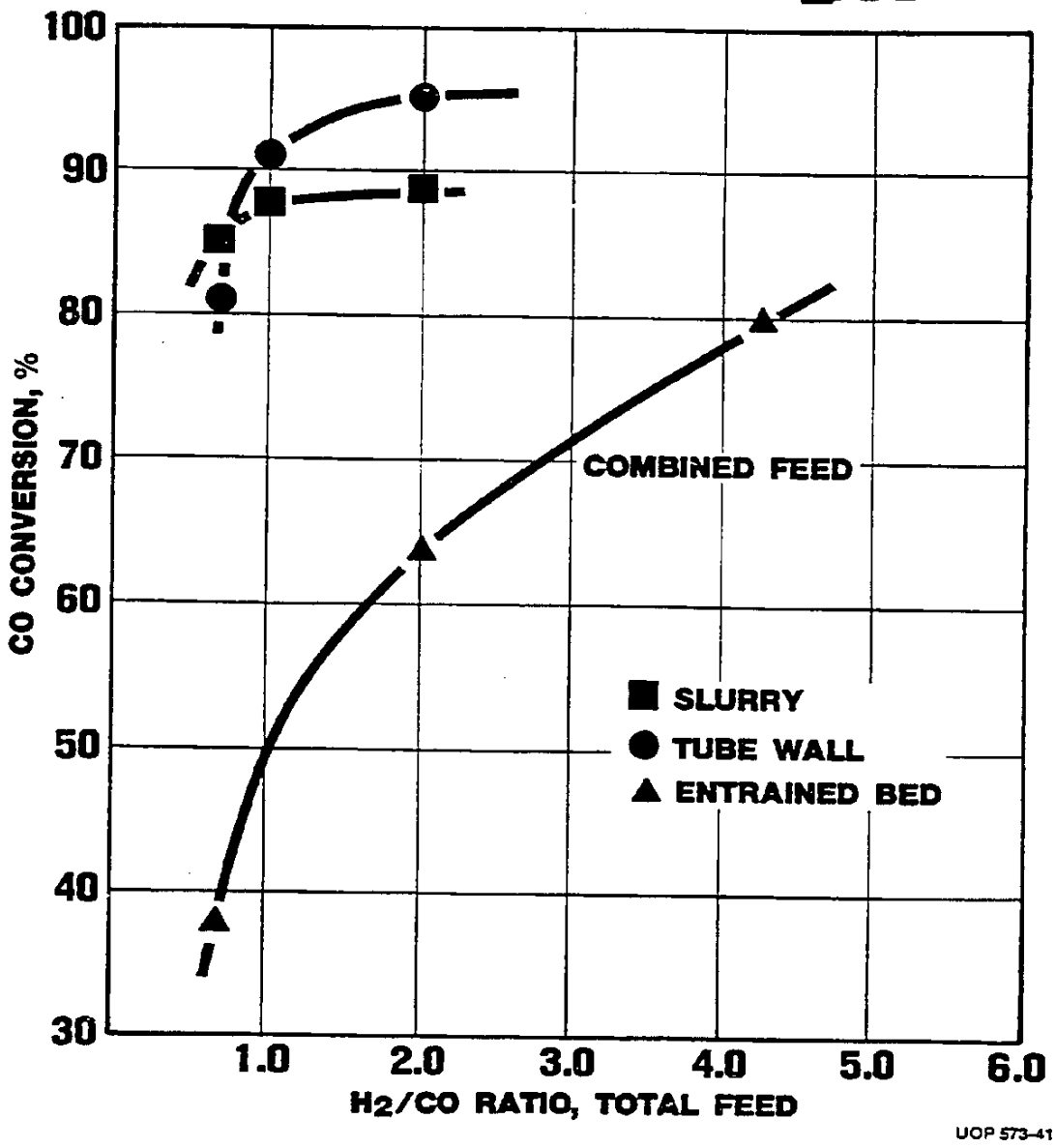


FIGURE 4.3-39

FISCHER TROPSCH

REACTOR COMPARISON
CO CONVERSION vs. H_2/CO

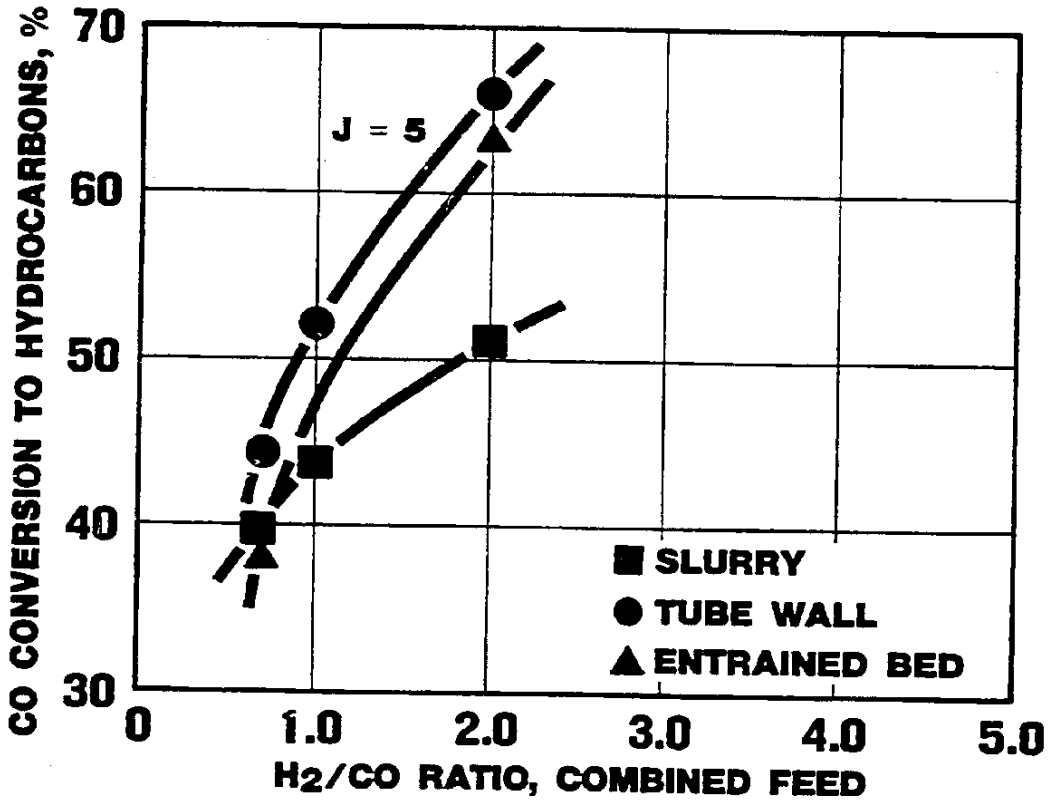


UOP 573-41

FIGURE 4.3-40

FISCHER TROPSCH

REACTOR COMPARISON
CO CONVERSION TO HYDROCARBONS vs. H_2/CO RATIO, COMBINED FEED



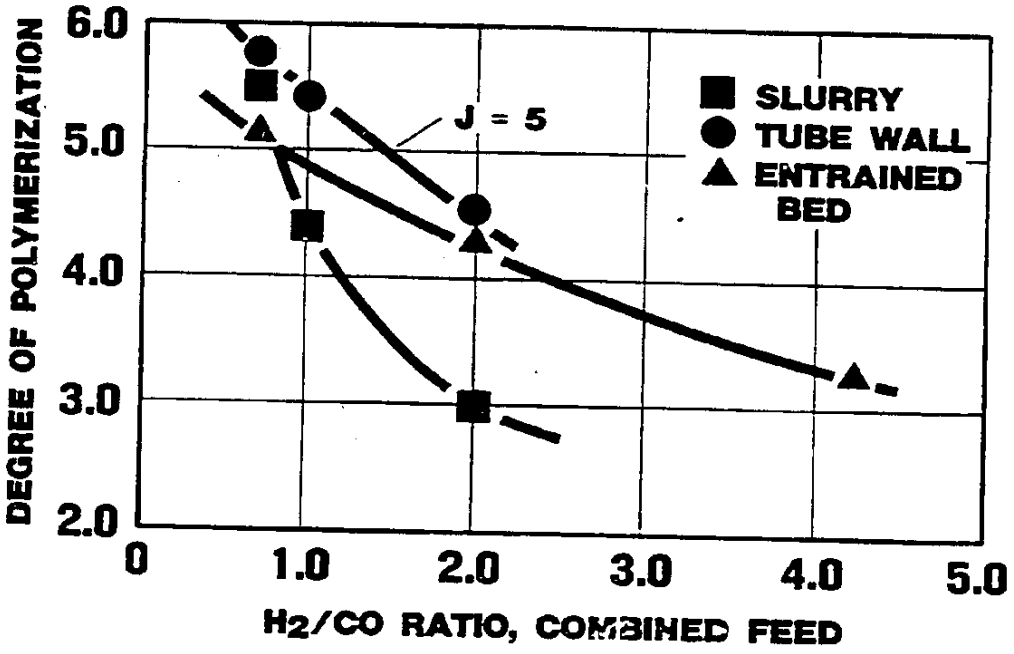
UOP 573-42

FIGURE 4.3-41

FISCHER TROPSCH

REACTOR COMPARISON

DEGREE OF POLYMERIZATION vs. H_2/CO

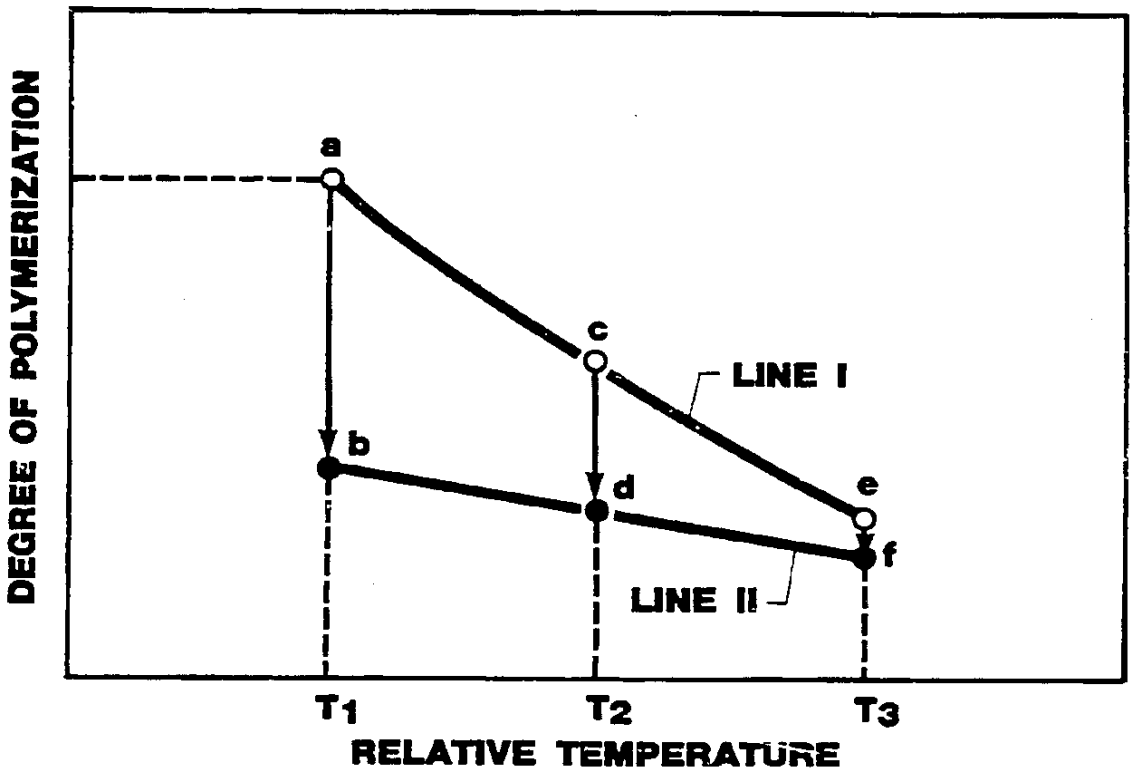


UOP 573-43

FIGURE 4.3-42

FISCHER TROPSCH

ENTRAINED BED REACTOR
INFLUENCE OF ΔT
ON DEGREE OF POLYMERIZATION



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