

LIST OF SYMBOLS AND ABBREVIATIONS USED

A	Pre-exponential coefficient	
-E _a	Activation energy	kcal/gmole
F _{Ao}	Molar flow rate of A	gmole/h
k	Reaction rate constant	gmole/(h g cat atm)
z	Active site	-----
P _P	Partial pressure of n-dodecane	atm
P _O	Partial pressure of n-dodecene	atm
P _H	Partial pressure of hydrogen	atm
P _{He}	Partial pressure of helium	atm
R	Ideal gas constant	kcal/mole K
T	Temperature	kelvin (K)
W	Weight of catalyst	g
x	Fractional conversion	mole
C _z	Concentration of z	/g cat
K _{eq}	Equilibrium constant	----
K _P	Adsorption equilibrium constant for n-dodecane	atm ⁻¹
K _O	Adsorption equilibrium constant for n-dodecene	atm ⁻¹
K _H	Adsorption equilibrium constant for hydrogen	atm ⁻¹
-r	Rate of reaction	gmole/h g cat
x _{tot}	Fractional conversion calculated on the basis of total space velocity	mole
F _{tot}	Total molar flow rate of all species fed to the reactor	gmole/h
α, β, γ	Reaction orders unless otherwise specified	