LIST OF ABBREVIATIONS

A	cross section area of tank, m^2
B	measured variable
C	controlled variable
C_V	valve constant, m^2
C_p	heat capacity of liquid, kJ/kg ·°C
e	error
f	generally nonlinear function vectors
g	specific gravity, m/s^2
g	generally nonlinear function vectors
G	transfer function
h	generally nonlinear function vectors
h	level of liquid in tank, m
Kc	controller gain
K_n	static gain
$\dot{m}$	mass flow rate, kg/min
m	number of input variables
M	control signal output
n	integer
N_F	degree of freedom
N_V	number of variable
N_E	number of equation
P	pressure, N/m^2
PV	process variable
p	number of terms for each input variable
p	vector of process parameters
q	volumetric flow rates, m^3/min
Q	heat from heater, kW
R	valve resistant
R	setpoint
SP	setpoint

LIST OF ABBREVIATIONS (cont'd)

t	elapsed time, min
T	Temperature, °C
Ti	integral time, min
Td	derivative time, min
u	vector of input variable
U	manipulated variable
V	volume of a tank, m^3
x	vector of state variables
y	vector of output variables
ρ	liquid density, kg/m^3
λ	filter parameter
τ	time constant, min