Nomenclature

B	branch
B_o	Bond number defined by equation (2.30)
C_1	Coefficient used in equation (2.1)
C_2	Exponent used in equation (2.1)
D	header diameter, mm
d	branch diameter, mm
Fr_L	liquid Froude number, $Fr_L = \frac{4\dot{m}_L}{\pi\sqrt{gd^5\rho_L(\rho_L - \rho_G)}}$
g	gravitational acceleration, m/s^2
h	interface height, mm
h_a	actual height, mm
h_m	measured height from camera, mm
L	distance between centre of two branches, mm
$\dot{m}$	mass flow rate, kg/min
N_μ	Viscosity number defined by equation (2.30)
P	pressure, bar
R	hydraulic resistance, $(kg.m)^{-1/2}$, $R = \frac{\sqrt{\Delta P}}{\dot{m}_{L,OGE}}$
R^2	coefficient of determination
T	temperature, °C or K
w	uncertainty
ΔP	pressure difference between test chamber and phase separator, bar, $\Delta P = P_{TC} - P_{PH}$

Abbreviations

BB	Bottom Branch
BGE	Beginning of Gas Entrainment
BLE	Beginning of Liquid Entrainment
IAEA	International Atomic Energy Association
IB	Inclined Branch
IB-1	Inclined Branch, mounted below SB-1
IB-2	Inclined Branch, mounted opposite to SB-1
LB	Lower Branch
LB-1	Lower Branch, mounted below UB-1
LB-2	Lower Branch, mounted opposite to UB-1
LOCA	Loss-of-Coolant in Accident
MB	Middle Branch
MB-1	Middle Branch, mounted below SB-1
MB-2	Middle Branch, mounted opposite to SB-1
OGE	Onset of Gas Entrainment
OLE	Onset of Liquid Entrainment
RMSD	Root Mean Square Deviation
RRS	Reactor Regulating System
SB	Side Branch
SB-1	Side Branch, mounted above IB-1
SB-2	Side Branch, mounted opposite to SB-1
UB	Upper Branch
UB-1	Upper Branch, mounted above MB-1
UB-2	Upper Branch, mounted opposite to UB-1
w.r.t.	with respect to

Greek Letters

$\Delta\rho$	difference in density between liquid and gas phases, $\Delta\rho = \rho_L - \rho_G$, kg/m^3
θ	branch angle, degree
ρ	density, kg/m^3
μ	dynamic viscosity, N.s/m^2
σ	surface tension, N/m

Subscripts

1, 2, 3, 4, 5	branch number
1PH	measuring phase separator
2PH	auxiliary phase separator
abs	absolute
atm	atmosphere
G	gas phase
L	liquid phase
P	fluctuation in process
PH	phase separator
T	flow transmitter or pressure transmitter
TC	test chamber
TP	two-phase fluid