

NOTATION

a	constant of Soave equation, eq. 4
AAD	average absolute deviation
A_{ij}	parameter in eq. 11
A_{ij}^{∞}	asymptotical value of A_{ij} , eq. 15
B	coefficients in eq. 8
b	constant of Soave equation, eq. 5
C	constant in eq. 9
CN	carbon number
f	fugacity
g^E	excess Gibbs energy
H	Henry's constant
K	vaporization equilibrium ratio = $\frac{y}{x}$
M	molecular weight
M_0	reference molecular weight, eq. 15
m	constant, eq. 6
p	pressure
R	universal gas constant
RMS	root mean square deviation
t	temperature, °C
T	absolute temperature, K
v	molar volume
\bar{v}^{∞}	partial molar volume at infinite dilution
V	hard-core volume
x	liquid-phase mole fraction
y	vapor-phase mole fraction

Greek Letters

α	equation constant, eq. 3
ϕ	volume fraction, eq. 14

ω Pitzer's acentric factor

Superscripts

n constant, eq. 6

s saturated property

Subscripts

c critical state

CD carbon dioxide

E ethane

H hydrogen

i component i

j component j

r reduced property