

wish to express their thanks to Mr. Ali Elkamel for his assistance with the numerical computations.

Notation

C_p = effective heat capacity, J/kg · K
 C_{p_g} = gas heat capacity, J/kg · K
 $G(t)$ = cumulative gas produced, m³ gas at STP/m²
 $H.V.$ = heating value of gas, J/m³ gas at STP
 k = effective thermal conductivity, J/s · m · K
 M = gas molecular mass, kg/kg-mol
 P = gas pressure, Pa
 P_0 = pressure at $x = 0$, Pa
 P_D = dissociation pressure, Pa
 $\dot{Q}(t)$ = cumulative heat input, J/m²
 $q(x, t)$ = heat flux, J/s · m²
 R = universal gas constant, J/kg-mol · K
 St = Stefan number, Eq. 22
 STP = standard temperature (273.15K), pressure (101,328 Pa)
 $T(x, t)$ = temperature, K
 T_0 = temperature at $x = 0$, K
 T_D = dissociation temperature, K
 T_i = initial temperature, K
 t = time, s
 v_x = superficial gas velocity, m/s
 x = axial position, m

Greek letters

α = effective thermal diffusivity, m²/s
 β = coefficient of thermal expansion of gas, K⁻¹
 ΔH_D = hydrate heat of dissociation, J/kg
 ϵ = porosity
 η = similarity variable ($= x/(4\alpha_{eff}t)^{1/2}$)
 κ = permeability, m²
 μ = gas viscosity, Pa · s
 ξ = constant
 ρ = effective density, kg/m³
 ρ_g = gas density, kg/m³
 ρ_H = hydrate density, kg/m³
 ω = mass of gas produced per unit mass of hydrate

Subscripts

I = dissociated zone, I
 II = hydrate zone, II
 D = dissociation
 g = gas
 H = hydrate
 i = initial condition
 0 = boundary condition at $x = 0$

Literature Cited

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Errata

In the paper entitled, "A Nonrandom Factor Model for the Excess Gibbs Energy of Electrolyte Solutions" by A. Haghtalab and J. H. Vera (34, May, 1988, p. 803), Eqs. A7 and A8 of the Appendix should read:

$$(\ln \gamma_{iz})_{D-H} = \frac{-A|Z_{Ai}Z_{Ci}|I^{1/2}}{1 + BI^{1/2}} \quad (A7)$$

$$(\ln \gamma_w)_{D-H} = \frac{2AM_w}{(10B)^3} \left[1 + BI^{1/2} - \frac{1}{1 + BI^{1/2}} - 2 \ln(1 + BI^{1/2}) \right] + \ln \left(1 + \frac{\nu M_w m}{1,000} \right) - \frac{\nu M_w m}{1,000} \quad (A8)$$

All results were calculated with the correct equations.