正誤表

JNC-TN9400 2000-065　多次元ナトリウム燃焼解析コード AQUA-SF の開発と検証

頁	誤	正
13	(3.2-15)式を $T_{x=0}=T_p$(プール表面温度), $T_{x=l}=T_f$(フレーム温度)として積分すると、	(2.2-15)式を $T_{x=0}=T_p$(プール表面温度), $T_{x=l}=T_f$(フレーム温度)として積分すると、
13	式(2.2-16)： $T=\left\{\frac{T_f-T_p}{\exp(A/\lambda_{N_2}\times l)-l}\right\}\times\left\{\exp\left(\frac{A}{\lambda_{N_2}}x\right)-1\right\}+T_p$ $\frac{dT}{dx}=\left\{\frac{T_f-T_p}{\exp(A/\lambda_{N_2}\times l)-l}\right\}\times\exp\left(\frac{A}{\lambda_{N_2}}x\right)$	式(2.2-16)： $T=\left\{\frac{T_f-T_p}{\exp(A/\lambda_{N_2}\times l)-1}\right\}\times\left\{\exp\left(\frac{A}{\lambda_{N_2}}x\right)-1\right\}+T_p$ $\frac{dT}{dx}=\frac{A}{\lambda_{N_2}}\left\{\frac{T_f-T_p}{\exp(A/\lambda_{N_2}\times l)-1}\right\}\times\exp\left(\frac{A}{\lambda_{N_2}}x\right)$
14	式(2.2-21)： $T=\left\{\frac{T_f-T_a}{\exp(A/\lambda_{N_2}\times z)-z}\right\}\times\left\{\exp\left(\frac{A}{\lambda_{N_2}}x\right)-1\right\}+T_a$ $\frac{dT}{dx}=\left\{\frac{T_f-T_a}{\exp(A/\lambda_{N_2}\times z)-z}\right\}\times\exp\left(\frac{A}{\lambda_{N_2}}x\right)$	式(2.2-21)： $T=\left\{\frac{T_f-T_a}{\exp(A/\lambda_{N_2}\times z)-1}\right\}\times\left\{\exp\left(\frac{A}{\lambda_{N_2}}x\right)-1\right\}+T_a$ $\frac{dT}{dx}=\frac{A}{\lambda_{N_2}}\left\{\frac{T_f-T_a}{\exp(A/\lambda_{N_2}\times z)-1}\right\}\times\exp\left(\frac{A}{\lambda_{N_2}}x\right)$
14	$Q_{fp}=\lambda_{N_2}\frac{dT}{dx}\Big\vert_{x=l}+F_{fp}\sigma\left(T_f{}^4-T_p{}^4\right)$, $\frac{dT}{dx}=\left\{\frac{T_f-T_p}{\exp(A/\lambda_{N_2}\times l)-l}\right\}\times\exp\left(\frac{A}{\lambda_{N_2}}x\right)$ （フレーム→プール表面）	$Q_{fp}=\lambda_{N_2}\frac{dT}{dx}\Big\vert_{x=l}+F_{fp}\sigma\left(T_f{}^4-T_p{}^4\right)$, $\frac{dT}{dx}=\frac{A}{\lambda_{N_2}}\left\{\frac{T_f-T_p}{\exp(A/\lambda_{N_2}\times l)-1}\right\}\times\exp\left(\frac{A}{\lambda_{N_2}}x\right)$ （フレーム→プール表面）
14	($h_{fa}=\frac{\lambda_{air}}{L}Nu$, $\frac{dT}{dx}=\left\{\frac{T_f-T_a}{\exp(A/\lambda_{N_2}\times z)-z}\right\}\times\exp\left(\frac{A}{\lambda_{N_2}}x\right)$)	($h_{fa}=\frac{\lambda_{air}}{L}Nu$, $\frac{dT}{dx}=\frac{A}{\lambda_{N_2}}\left\{\frac{T_f-T_a}{\exp(A/\lambda_{N_2}\times z)-1}\right\}\times\exp\left(\frac{A}{\lambda_{N_2}}x\right)$)

17	式(2.2-33)： $$q_c(1-\gamma)AR_1=\frac{1}{\frac{1}{hcell_1\times(1-\gamma)AR_1}+\frac{1}{\frac{2\lambda_1 AR_1}{\Delta r_1}}}(T_1^k-Tcell)$$	式(2.2-33)： $$q_c(1-\gamma)AR_1=\frac{1}{\frac{1}{hcell_1\times(1-\gamma)AR_1}+\frac{1}{\frac{2\lambda_1 AR_1}{\Delta r_1}}}(Tcell-T_1^k)$$
18	式(2.2-36)： $$a_1=\frac{\rho_1 C_{p_1}V_1}{\Delta t}+8\left(\frac{\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}\right)\sigma T_1^{k3}$$ $$d_1=\left(\frac{\rho_1 C_{p_1}V_1}{\Delta t}+8\left(\frac{\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}\right)\sigma T_1^{k3}\right)T_1^k+\dot{q}_1V_1$$ $$+\frac{2\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}(R_x^{\,n}-\sigma T_1^{k4})+\frac{1}{\frac{1}{hcell_1\times(1-\gamma)AR_1}+\frac{1}{\frac{2\lambda_1 AR_1}{\Delta r_1}}}(T_1^k-Tcell)$$	式(2.2-36)： $$a_1=\frac{\rho_1 C_{p_1}V_1}{\Delta t}+8\left(\frac{\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}\right)\sigma T_1^{k3}$$ $$d_1=\left(\frac{\rho_1 C_{p_1}V_1}{\Delta t}+8\left(\frac{\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}\right)\sigma T_1^{k3}\right)T_1^k+\dot{q}_1V_1$$ $$+\frac{2\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}(R_x^{\,n}-\sigma T_1^{k4})+\frac{1}{\frac{1}{hcell_1\times(1-\gamma)AR_1}+\frac{1}{\frac{2\lambda_1 AR_1}{\Delta r_1}}}(Tcell-T_1^k)$$
18	式(2.2-37)： $$q_c AR_0=\frac{1}{\frac{1}{hcell_0\times AR_0}+\frac{1}{\frac{2\lambda_0 AR_0}{\Delta r_0}}}(T_0-Tcell)$$	式(2.2-37)： $$q_c AR_0=\frac{1}{\frac{1}{hcell_0\times AR_0}+\frac{1}{\frac{2\lambda_0 AR_0}{\Delta r_0}}}(Tcell-T_0)$$

20	式(2.2-41)： $a_1 = \frac{\rho_1 C_{p_1} V_1}{\Delta t} + 8\left(\frac{\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}\right)\sigma T_1^{k^3}$ $d_1 = \left(\frac{\rho_1 C_{p_1} V_1}{\Delta t} + 8\left(\frac{\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}\right)\sigma T_1^{k^3}\right)T_i^k + \dot{q}_1 V_1$ $+\frac{2\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}(R_x{}^n - \sigma T_1^{k^4}) + \frac{1}{\frac{1}{hcell_1\times(1-\gamma)AR_1}+\frac{1}{\frac{2\lambda_1 AR_1}{\Delta r_1}}}(T_1^k - Tcell)$	式(2.2-41)： $a_1 = \frac{\rho_1 C_{p_1} V_1}{\Delta t} + 8\left(\frac{\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}\right)\sigma T_1^{k3}$ $d_1 = \left(\frac{\rho_1 C_{p_1} V_1}{\Delta t} + 8\left(\frac{\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}\right)\sigma T_1^{k3}\right)T_i^k + \dot{q}_1 V_1$ $+\frac{2\varepsilon_w(1-\gamma)AR_1}{2-\gamma\varepsilon_f-(1-\gamma)\varepsilon_w}(R_x{}^n - \sigma T_1^{k4}) + \frac{1}{\frac{1}{hcell_1\times(1-\gamma)AR_1}+\frac{1}{\frac{2\lambda_1 AR_1}{\Delta r_1}}}(Tcell - T_1^k)$
28	となる(2.1-2)式の右辺第３項はエアロゾル成分に関する密度変化項であり、	となる(2.5-2)式の右辺第３項はエアロゾル成分に関する密度変化項であり、
29	式(2.5-8)： $\frac{\partial\rho}{\partial t} = a_0 P^{k+1} + b_0$ $a_0 = \frac{1}{\Delta t}\left(\frac{\beta^k}{\sum_{i\in gas} Y_i^k}\right)\left.\frac{\partial\rho_g}{\partial P}\right\|_{T,M_g}^k$ $b_0 = a_0 P^n + \left.\frac{\partial\rho_g}{\partial T}\right\|_{p,M_g}^k \frac{T^k-T^n}{\Delta t} + \left.\frac{\partial\rho_g}{\partial M_g}\right\|_{p,T}^k \frac{M_g^k-M_g^n}{\Delta t}$	式(2.5-8)： $\frac{\partial\rho}{\partial t} = a_0 P^{k+1} - b_0$ $a_0 = \frac{1}{\Delta t}\left(\frac{\beta^k}{\sum_{i\in gas} Y_i^k}\right)\left.\frac{\partial\rho_g}{\partial P}\right\|_{T,M_g}^k$ $b_0 = a_0 P^n - \beta\left.\frac{\partial\rho_g}{\partial T}\right\|_{p,M_g}^k \frac{T^k-T^n}{\Delta t} - \beta\left.\frac{\partial\rho_g}{\partial M_g}\right\|_{p,T}^k \frac{M_g^k-M_g^n}{\Delta t}$ $-\rho_g\frac{\beta^k-\beta^n}{\Delta t} - \frac{\rho_{sl}{}^k-\rho_{sl}{}^n}{\Delta t}$ $= a_0 P^n - \left\{\frac{\partial\rho^k}{\partial t} - a_0\left(P^k - P^n\right)\right\}$ $= a_0 P^k - \frac{\partial\rho^k}{\partial t}$