「プラズモニクス―基礎と応用」第1刷正誤表（2010年10月1日発行）

頁	該当箇所	誤	正
9	参考文献2	4) G. Ruthemann, *Ann. Phys.*, **6**, 113 (1948)	4) G. Ruthemann, *Ann. Phys.*, **2**, 113 (1948)
	参考文献11	11) C. J. Powell and J. B. Swan, *Phys. Rev.*, **118**, 640 (1959)	11) C. J. Powell and J. B. Swan, *Phys. Rev.*, **118**, 640 (1960)
21	式(3.75)	$\begin{bmatrix}1 & 1\\ \alpha_{l+1} & -\alpha_{l+1}\end{bmatrix}\begin{bmatrix}H_{l+1}^{+}\\ H_{l+1}^{-}\end{bmatrix}=\begin{bmatrix}1 & 1\\ \alpha_l & -\alpha_l\end{bmatrix}\begin{bmatrix}\exp(ik_{zl}h_l) & 1\\ 1 & \exp(-ik_{zl}h_l)\end{bmatrix}\begin{bmatrix}H_l^{+}\\ H_l^{-}\end{bmatrix}$	$\begin{bmatrix}1 & 1\\ \alpha_{l+1} & -\alpha_{l+1}\end{bmatrix}\begin{bmatrix}H_{l+1}^{+}\\ H_{l+1}^{-}\end{bmatrix}=\begin{bmatrix}1 & 1\\ \alpha_l & -\alpha_l\end{bmatrix}\begin{bmatrix}\exp(ik_{zl}h_l) & 0\\ 0 & \exp(-ik_{zl}h_l)\end{bmatrix}\begin{bmatrix}H_l^{+}\\ H_l^{-}\end{bmatrix}$
22	式(3.77)	$\mathrm{M}_l=\begin{bmatrix}1 & 1\\ \alpha_{l+1} & -\alpha_{l+1}\end{bmatrix}^{-1}\begin{bmatrix}1 & 1\\ \alpha_l & -\alpha_l\end{bmatrix}\begin{bmatrix}\exp(ik_{zl}h_l) & 1\\ 1 & \exp(-ik_{zl}h_l)\end{bmatrix}$	$\mathrm{M}_l=\begin{bmatrix}1 & 1\\ \alpha_{l+1} & -\alpha_{l+1}\end{bmatrix}^{-1}\begin{bmatrix}1 & 1\\ \alpha_l & -\alpha_l\end{bmatrix}\begin{bmatrix}\exp(ik_{zl}h_l) & 0\\ 0 & \exp(-ik_{zl}h_l)\end{bmatrix}$
	式(3.81)	$t=\frac{H_0^{+}}{H_L^{-}}=\frac{1}{m_{22}}$	$t=\frac{H_0^{-}}{H_L^{-}}=\frac{1}{m_{22}}$
26	式(3.96)	$k_{\mathrm{ev}}=k_x=\frac{\omega}{c}\sin\theta$	$k_{\mathrm{ev}}=k_x=\frac{n\omega}{c}\sin\theta$
30	表4.1 銀の減衰定数	3.1	31
40	図5.5 右側の縦軸	$\mathrm{Im}(k_{\mathrm{sp}})(\mu\mathrm{m}^{-1})$	$\mathrm{Im}(k_{\mathrm{sp}})(\mathrm{mm}^{-1})$
54	式(5.56) 式(5.57)	$\varepsilon_1 k_{z2}+\varepsilon_2 k_{z1}\tanh(k_{z1}h_2/2i)=0$ (5.56) $\varepsilon_1 k_{z2}+\varepsilon_2 k_{z1}\coth(k_{z1}h_2/2i)=0$ (5.57)	$\varepsilon_1 k_{z2}+\varepsilon_2 k_{z1}\coth(k_{z1}h_2/2i)=0$ (5.56) $\varepsilon_1 k_{z2}+\varepsilon_2 k_{z1}\tanh(k_{z1}h_2/2i)=0$ (5.57) ※式(5.56)と(5.57)が逆
66	式(6.17)	$\mathrm{d}Q=2\pi nez\cos\theta\sin\theta\mathrm{d}\theta$	$\mathrm{d}Q=2\pi nea^2z\cos\theta\sin\theta\mathrm{d}\theta$
73	式(6.51)	$W=\frac{\omega^4\varepsilon_2}{12\pi c^3}\alpha^2E_0{}^2=\frac{\omega k^3\varepsilon_2}{12\pi}\alpha^2E_0{}^2$	$W=\frac{\omega^4\varepsilon_2}{12\pi c^3}\lvert\alpha\rvert^2E_0{}^2=\frac{\omega k^3\varepsilon_2}{12\pi}\lvert\alpha\rvert^2E_0{}^2$

	式(6.53)	$C_{\mathrm{sca}}=\frac{W}{S_0}=\frac{k^4}{6\pi}\lvert\alpha^2\rvert$	$C_{\mathrm{sca}}=\frac{W}{S_0}=\frac{k^4}{6\pi}\lvert\alpha\rvert^2$
73	式(6.55)	$\alpha=4\pi r_1^3\frac{(\varepsilon_1'-\varepsilon_2)(\varepsilon_1'+2\varepsilon_2)+(\varepsilon_1'')^2+i3\varepsilon_1''\varepsilon_2}{(\varepsilon_1'+2\varepsilon_2)+(\varepsilon_1'')^2}$	$\alpha=4\pi r_1^3\frac{(\varepsilon_1'-\varepsilon_2)(\varepsilon_1'+2\varepsilon_2)+(\varepsilon_1'')^2+i3\varepsilon_1''\varepsilon_2}{(\varepsilon_1'+2\varepsilon_2)^2+(\varepsilon_1'')^2}$
	式(6.56)	$C_{\mathrm{abs}}=k\frac{12\pi r_1^3\varepsilon_1''\varepsilon_2}{(\varepsilon_1'+2\varepsilon_2)+(\varepsilon_1'')^2}$	$C_{\mathrm{abs}}=k\frac{12\pi r_1^3\varepsilon_1''\varepsilon_2}{(\varepsilon_1'+2\varepsilon_2)^2+(\varepsilon_1'')^2}$
	式(6.56)の 1 行下	$k=2\pi\varepsilon_2^{1/2}\lambda$	$k=2\pi\varepsilon_2^{1/2}/\lambda$
74	式(6.59)	$C(r)=C_\theta(r)+C_r(r)=\frac{\alpha^2}{6\pi}\left(\frac{3}{r^4}+\frac{k^2}{r^2}+k^4\right)$	$C(r)=C_\theta(r)+C_r(r)=\frac{\lvert\alpha\rvert^2}{6\pi}\left(\frac{3}{r^4}+\frac{k^2}{r^2}+k^4\right)$
	式(6.60)	$C_\theta(r)=\frac{\alpha^2}{6\pi}\left(\frac{1}{r^4}-\frac{k^2}{r^2}+k^4\right)$	$C_\theta(r)=\frac{\lvert\alpha\rvert^2}{6\pi}\left(\frac{1}{r^4}-\frac{k^2}{r^2}+k^4\right)$
	式(6.61)	$C_r(r)=\frac{\alpha^2}{6\pi}\left(\frac{2}{r^4}+\frac{2k^2}{r^2}\right)$	$C_r(r)=\frac{\lvert\alpha\rvert^2}{6\pi}\left(\frac{2}{r^4}+\frac{2k^2}{r^2}\right)$
	式(6.62)	$C_{\mathrm{nf}}=C(r_1)=\frac{\alpha^2}{6\pi}\left(\frac{3}{r_1^4}+\frac{k^2}{r_1^2}+k^4\right)$	$C_{\mathrm{nf}}=C(r_1)=\frac{\lvert\alpha\rvert^2}{6\pi}\left(\frac{3}{r_1^4}+\frac{k^2}{r_1^2}+k^4\right)$
82	式(6.104)	$\xi_0=\frac{c}{(a^2-c^2)^{1/2}}$	$\xi_0=\frac{b}{(a^2-b^2)^{1/2}}$
84	式(6.116)	$\omega=\frac{\omega_{\mathrm{p}}}{\sqrt{2}}\left[1\pm\sqrt{1+8\left(\frac{r_2}{r_1}\right)^3}\right]^{1/2}$	$\omega=\frac{\omega_{\mathrm{p}}}{\sqrt{6}}\left[3\pm\sqrt{1+8\left(\frac{r_2}{r_1}\right)^3}\right]^{1/2}$

109	式(7.5)の 1 行下	$\exp(ikx)$	$\exp(-ikx)$
	式(7.6)の 1 行下	$\exp[i(k-K)x]$	$\exp[-i(k-K)x]$
110	式(7.9)の 1 行上	$k^2 = \omega^2\varepsilon_0/c^2$	$k^2 = \omega^2\varepsilon_1/c^2$
110	式(7.9)	$\begin{bmatrix} \frac{\omega^2}{c^2}\varepsilon_1 - k^2 & \frac{\varepsilon_2}{\varepsilon_0}\frac{k^2}{2} \\ \frac{\varepsilon_2}{\varepsilon_1}\frac{k^2}{2} & \frac{\omega^2}{c^2}\varepsilon_1 - (k-K)^2 \end{bmatrix}\begin{bmatrix} E_0 \\ E_{-1} \end{bmatrix} = 0$	$\begin{bmatrix} \frac{\omega^2}{c^2}\varepsilon_1 - k^2 & \frac{\varepsilon_2}{\varepsilon_1}\frac{k^2}{2} \\ \frac{\varepsilon_2}{\varepsilon_1}\frac{k^2}{2} & \frac{\omega^2}{c^2}\varepsilon_1 - (k-K)^2 \end{bmatrix}\begin{bmatrix} E_0 \\ E_{-1} \end{bmatrix} = 0$
135	式(823)の 4 行下	$Z = Z_0$	$Z = 0$
	式(8.25)	$\boldsymbol{H}_0 = \begin{bmatrix} H_{0x} \\ H_{0y} \\ H_{0z} \end{bmatrix} = \begin{bmatrix} 0 \\ (ZE_0)\sin(k_z z - \omega t) \\ 0 \end{bmatrix}$	$\boldsymbol{H}_0 = \begin{bmatrix} H_{0x} \\ H_{0y} \\ H_{0z} \end{bmatrix} = \begin{bmatrix} 0 \\ (E_0/Z)\sin(k_z z - \omega t) \\ 0 \end{bmatrix}$
	式(8.25)の 2 行下	$\mathit{\Delta}/2$	$\Delta z/2$（2 箇所いずれも）
	式(8.27)	$H_y\Big\vert_{i+\frac{1}{2},j,\frac{1}{2}}^{n+\frac{1}{2}} \leftarrow H_y\Big\vert_{i+\frac{1}{2},j,\frac{1}{2}}^{n+\frac{1}{2}} + (E_0/Z_0)\sin\left[\frac{k_z\Delta z}{2} - \omega\left(n+\frac{1}{2}\right)\Delta t\right]$	$H_y\Big\vert_{i+\frac{1}{2},j,\frac{1}{2}}^{n+\frac{1}{2}} \leftarrow H_y\Big\vert_{i+\frac{1}{2},j,\frac{1}{2}}^{n+\frac{1}{2}} + (E_0/Z)\sin\left[\frac{k_z\Delta z}{2} - \omega\left(n+\frac{1}{2}\right)\Delta t\right]$
137	式(8.35)	$\boldsymbol{D}^m = \varepsilon_0\varepsilon\boldsymbol{E}^{n-1} + \varepsilon_0\sum_{m=0}^{n-2}\boldsymbol{E}^{n-1-m}\chi^m$	$\boldsymbol{D}^{n-1} = \varepsilon_0\varepsilon_\infty\boldsymbol{E}^{n-1} + \varepsilon_0\sum_{m=0}^{n-2}\boldsymbol{E}^{n-1-m}\chi^m$
	式(8.36)	$\boldsymbol{D}^m - \boldsymbol{D}^{m-1} = \varepsilon_0(\varepsilon_\infty + \chi^0)\boldsymbol{E}^n - \varepsilon_0\varepsilon\boldsymbol{E}^{n-1} - \varepsilon_0\sum_{m=0}^{n-2}\boldsymbol{E}^{n-1-m}\Delta\chi^m$	$\boldsymbol{D}^n - \boldsymbol{D}^{n-1} = \varepsilon_0(\varepsilon_\infty + \chi^0)\boldsymbol{E}^n - \varepsilon_0\varepsilon_\infty\boldsymbol{E}^{n-1} - \varepsilon_0\sum_{m=0}^{n-2}\boldsymbol{E}^{n-1-m}\Delta\chi^m$

138	式(8.44)	$\chi^m = \int_{m\Delta t}^{(m+1)\Delta t} \chi(\tau)\mathrm{d}\tau$ $= \int_{m\Delta t}^{(m+1)\Delta t} \frac{\omega_\mathrm{p}{}^2}{\Gamma}\left[1-\exp(-\Gamma t)\right]U(t)\mathrm{d}\tau$ $= \frac{\omega_\mathrm{p}{}^2}{\Gamma}\left[\tau+\frac{1}{\Gamma}\exp(-\Gamma t)\right]_{m\Delta t}^{(m+1)\Delta t}$ $= \frac{\omega_\mathrm{p}{}^2}{\Gamma}\left\{\Delta t-\frac{1}{\Gamma}\exp(-\Gamma m\Delta t)\left[1-\exp(-\Gamma t)\right]\right\}$	$\chi^m = \int_{m\Delta t}^{(m+1)\Delta t} \chi(\tau)\mathrm{d}\tau$ $= \int_{m\Delta t}^{(m+1)\Delta t} \frac{\omega_\mathrm{p}{}^2}{\Gamma}\left[1-\exp(-\Gamma \tau)\right]U(\tau)\mathrm{d}\tau$ $= \frac{\omega_\mathrm{p}{}^2}{\Gamma}\left[\tau+\frac{1}{\Gamma}\exp(-\Gamma \tau)\right]_{m\Delta t}^{(m+1)\Delta t}$ $= \frac{\omega_\mathrm{p}{}^2}{\Gamma}\left\{\Delta t-\frac{1}{\Gamma}\exp(-\Gamma m\Delta t)\left[1-\exp(-\Gamma \Delta t)\right]\right\}$
139	式(8.45)	$\Delta\chi^{m+1} = \chi^{m+1}-\chi^m$ $= \frac{\omega_\mathrm{p}{}^2}{\Gamma}\left\{\Delta t-\frac{1}{\Gamma}\exp\left[1-\Gamma(m+1)\Delta t\right]\left[1-\exp(-\Gamma t)\right]\right\}-\frac{\omega_\mathrm{p}{}^2}{\Gamma}\left\{\Delta t-\frac{1}{\Gamma}\exp(-\Gamma m\Delta t)\left[1-\exp(-\Gamma t)\right]\right\}$ $= -\frac{\omega_\mathrm{p}{}^2}{\Gamma}\left[1-\exp(-\Gamma t)\right]^2\exp(-\Gamma m\Delta t)$	$\Delta\chi^{m+1} = \chi^{m}-\chi^{m+1}$ $= \frac{\omega_\mathrm{p}{}^2}{\Gamma}\left\{\Delta t-\frac{1}{\Gamma}\exp(-\Gamma m\Delta t)\left[1-\exp(-\Gamma t)\right]\right\}-\frac{\omega_\mathrm{p}{}^2}{\Gamma}\left\{\Delta t-\frac{1}{\Gamma}\exp\left[1-\Gamma(m+1)\Delta t\right]\left[1-\exp(-\Gamma t)\right]\right\}$ $= -\frac{\omega_\mathrm{p}{}^2}{\Gamma^2}\left[1-\exp(-\Gamma \Delta t)\right]^2\exp(-\Gamma m\Delta t)$
255	式(A4.19)	$\xi_n(r)=r\left[j_n(r)-iy_n(r)\right]$	$\xi_n(r)=r\left[j_n(r)+iy_n(r)\right]$
257	下から 2～1 行目	`c = 2.9979245810^14; (* Speed of light in vacuum in um/sec *)` `OmegapAu = 1.3410^16; (* Plasma frequency in 1/sec *)`	`c = 2.99792458*10^14; (* Speed of light in vacuum in um/sec *)` `OmegapAu = 1.38*10^16; (* Plasma frequency in 1/sec *)`

258	上から1～5行目	`GammaBulkAu = 1.0/(9.310^-15);(* Dumping constant in 1/sec *)`
		`VfAu = 1.3910^12; (* Fermi velocity in um/sec *)`
		`OmegapAg = 1.3410^16; (* Plasma frequency in 1/sec *)`
		`GammaBulkAg = 1.0/(9.310^-15);(* Dumping constant in 1/sec *)`
		`VfAg = 1.3910^12; (* Fermi velocity in um/sec *)`
			`GammaBulkAu = 1.0/(9.3*10^-15);(* Dumping constant in 1/sec *)`
			`VfAu = 1.39*10^12; (* Fermi velocity in um/sec *)`
			`OmegapAg = 1.40*10^16; (* Plasma frequency in 1/sec *)`
			`GammaBulkAg = 1.0/(31*10^-15);(* Dumping constant in 1/sec *)`
			`VfAg = 1.39*10^12; (* Fermi velocity in um/sec *)`

259	下から5行目	`Re[an[l, lambda, a] + 12.5 ptbn[l, lambda, a]], {l, 1, lmax` `[lambda, a]}];`	`Re[an[l, lambda, a] + bn[l, lambda, a]], {l, 1, lmax[lambda, a]}];`

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