巻	章	節	頁	箇所
1	1	13	36	式

誤

$$K_I = \frac{P}{th^{1/2}} \cdot f_I(\alpha) \;,\quad \alpha = \frac{a}{W}$$

$$f_I(\alpha) = 2\sqrt{3}\,(\frac{a}{h} + 0.64)$$

正

$$K_I = \frac{P}{th^{1/2}} \cdot f_I(\alpha) \;,\quad \alpha = \frac{a}{h}$$

$$f_I(\alpha) = 2\sqrt{3}\,(\alpha + 0.64)$$

巻	章	節	頁	箇所
1	1	13	36	式

誤

$$\delta_\ell = \frac{P}{E't} \cdot V_\ell(\alpha) \;,\quad \alpha = \frac{a}{W}$$

$$V_\ell(\alpha) = 4\,(\frac{a}{h})^3 (1 + 0.64\,\frac{h}{a})^3$$

正

$$\delta_\ell = \frac{P}{E't} \cdot 2V_\ell(\alpha) \;,\quad \alpha = \frac{a}{h}$$

$$V_\ell(\alpha) = 4\,(\alpha^3 + 1.92\alpha^2 + 1.22\alpha + 0.39)$$

巻	章	節	頁	箇所
1	1	13	37	表

誤

a/h	0.000	0.001	…	0.009	0.010
0.200					
0.210					
0.220					
0.230					
⋮					
0.760					
0.770					
0.780					
0.790					

正

a/h	0.00	0.01	…	0.09	0.10
2.00					
2.10					
2.20					
2.30					
⋮					
7.60					
7.70					
7.80					
7.90					

巻	章	節	頁	箇所
1	2	13	86	式

誤

$$K_I = \sigma\sqrt{a} \cdot F_I(\alpha) \;,\quad \alpha = a/W$$

正

$$K_I = \sigma\sqrt{\pi a} \cdot F_I(\alpha) \;,\quad \alpha = a/W$$

巻	章	節	頁	箇所
1	2	13	87	文献

誤

[1] M.Lowengrub and I.N.Sneddon, The Distribution of Stress in the Vicinity of and External Crack in an Infinite Elastic Solid, Int. J. Engng. Sci., Vol. 3 (1965), pp. 451-460.

正

[1] M.Lowengrub, A Two-Dimensional Crack Problem, Int. J. Engng, Sci., Vol. 4 (1966), pp. 289-299.

巻	章	節	頁	箇所
1	4	22	223	表

誤

ε \ λ	0.1	0.2	0.3	
0	1.0060	1.0246	1.0577	…
0.02	1.0057	1.0234	1.0544	
0.04	1.0055	1.0223	1.0516	
		⋮		
0.4	1.0044	1.0170	1.0374	…
0.5	1.0042	1.0165	1.0364	
0.6	1.0040	1.0155	1.0343	
0.7	1.0036	1.0139	1.0309	
0.8	1.0031	1.0210	1.0264	

正

ε \ λ	0.1	0.2	0.3	
0	1.0060	1.0246	1.0577	…
0.02	1.0057	1.0234	1.0544	
0.04	1.0055	1.0223	1.0516	
		⋮		
0.4	1.0044	1.0170	1.0374	…
0.5	1.0042	1.0165	1.0364	
0.6	1.0040	1.0155	1.0343	
0.7	1.0036	1.0139	1.0309	
0.8	1.0031	1.0120	1.0264	

巻	章	節	頁	箇所
1	7	1	350	表

誤

b/a	M. Isida and H.Tsuru[2]		G.Sih[1]	
	F_{III}^A	F_{III}^B	F_{III}^A	F_{III}^B
0.1	0.8926	1.0088	0.9160	1.0080
0.2	0.8865	1.0146	0.8984	1.0148
0.3	0.8742	1.0200	0.8744	1.0204
0.4	0.8679	1.0246	0.8731	1.0250

正

b/a	M. Isida and H.Tsuru[2]		G.Sih[1]	
	F_{III}^A	F_{III}^B	F_{III}^A	F_{III}^B
0.1	0.8926	1.0088	0.9160	1.0080
0.2	0.8865	1.0146	0.8984	1.0148
0.3	0.8742	1.0200	0.8844	1.0204
0.4	0.8679	1.0246	0.8731	1.0250

巻	章	節	頁	箇所
1	7	4	375	表

誤

b/a	F_I^B		F_{II}^B		F_I^A	
	Isida [3]	Yuuki [1]	Isida	Yuuki	Isida	Yuuki
0.02	0.624		0.245		1.003	
0.03	0.613		0.268		1.004	
0.05	0.593	0.59	0.298	0.29	1.006	1.01
0.1	0.560	0.56	0.348	0.34	1.010	1.01
0.2	0.528	0.54	0.405	0.40	1.015	1.02
0.3	0.512		0.438		1.019	
0.4	0.504	0.51	0.460	0.46	1.023	1.03
0.5	0.500		0.474		1.026	
0.6	0.497	0.50	0.485	0.49	1.029	1.04
0.7	0.496		0.493		1.033	

正

b/a	F_I^B		F_{II}^B		F_I^A	
	Isida [3]	Yuuki [1]	Isida	Yuuki	Isida	Yuuki
0.02	0.631		0.246		1.003	
0.03	0.615		0.267		1.004	
0.05	0.593	0.59	0.297	0.29	1.006	1.01
0.1	0.560	0.56	0.347	0.34	1.010	1.01
0.2	0.528	0.54	0.405	0.40	1.015	1.02
0.3	0.512		0.438		1.019	
0.4	0.504	0.51	0.460	0.46	1.023	1.03
0.5	0.500		0.474		1.026	
0.6	0.497	0.50	0.485	0.49	1.029	1.04
0.7	0.496		0.493		1.032	

巻	章	節	頁	箇所
1	7	4	384	表

誤

$F_I = K_I / \sigma\sqrt{\pi a}$

β(°)	Isida b/a→0 [1]	Lo b/a→0 [2]	Bilby b/a→0 [3]	
15	0.7325	0.73	0.73	…
30	0.7422	—	0.70	
45	0.7119	0.711	0.58	
60	0.6346	0.634	0.43	
75	—	0.50	0.26	
90	0.3977	—	0.11	

正

$F_I = K_I / \sigma\sqrt{\pi a}$

β(°)	Isida b/a→0 [1]	Lo b/a→0 [2]	Bilby b/a→0 [3]	
15	0.7325	0.73	0.73	…
30	0.7460	—	0.70	
45	0.7119	0.711	0.58	
60	0.6346	0.634	0.43	
75	—	0.50	0.26	
90	0.3977	—	0.11	

巻	章	節	頁	箇所
1	7	8	412	表

誤

n	$F_I(n)$		
	Kitagawa & Yuuki [2]	Isida [3]	$2/\sqrt{n}$
2	1.0	1.0	—
3	0.9415	0.94152	—
4	0.8636	0.86354	1.000
	⋮		

正

n	$F_I(n)$		
	Kitagawa & Yuuki [1]	Isida [2]	$2/\sqrt{n}$
2	1.0	1.0	—
3	0.9415	0.94152	—
4	0.8636	0.86354	1.000
	⋮		

巻	章	節	頁	箇所
1	8	12	464	表

誤

Γ	0		0.25		0.5		
d/a	$F_{I,A}$	$F_{I,B}$	$F_{I,A}$	$F_{I,B}$	$F_{I,A}$	$F_{I,B}$	
1.0	1.586	—	1.144	—	1.065	—	…
1.04	1.266	2.313	1.115	1.533	1.056	1.250	
1.10	1.211	1.759	1.097	1.341	1.048	1.170	
1.16	1.179	1.549	1.085	1.258	1.048	1.129	
1.2	1.163	1.464	1.079	1.222	1.040	1.112	
		⋮					

正

Γ	0		0.25		0.5		
d/a	$F_{I,A}$	$F_{I,B}$	$F_{I,A}$	$F_{I,B}$	$F_{I,A}$	$F_{I,B}$	
1.0	1.586	—	1.144	—	1.065	—	…
1.04	1.266	2.313	1.115	1.533	1.056	1.250	
1.10	1.211	1.759	1.097	1.341	1.048	1.170	
1.16	1.179	1.549	1.085	1.258	1.043	1.129	
1.2	1.163	1.464	1.079	1.222	1.040	1.112	
		⋮					

巻	章	節	頁	箇所	誤	正
1	8	41	544	表	ℓ/a | Γ 0 0 | -1.122 10^{-5} | -1.121 0.1 | -0.784 0.2 | -0.567 0.4 | -0.320 0.6 | -0.194 0.9 | -0.123 1.0 | -0.080 ⋮ ⋯	ℓ/a | Γ 0 0 | -1.122 10^{-5} | -1.121 0.1 | -0.784 0.2 | -0.567 0.4 | -0.320 0.6 | -0.194 0.8 | -0.123 1.0 | -0.080 ⋮ ⋯
2	9	6	658	式	$K^{T}_{I,3} = \sigma'_0\sqrt{\pi b}\,F^{T}_{I,3}$, $\lambda = \frac{a}{d}$, $\beta = \frac{b}{a}$	$K^{T}_{I,3} = \sigma'_0\sqrt{\pi b}\,F^{T}_{I,3}$, $\lambda = \frac{b}{d}$, $\beta = \frac{b}{a}$
2	9	16	678	式	$K_{II} = \frac{2Q}{(\pi a)^{\frac{3}{2}}(2-\nu)(1-r_0^2)^{\frac{1}{2}}}[(2-\nu)r_0 + 2\sum_{n=1}^{\infty}\{1+ \cdots$	$K_{II} = -\frac{2Q}{(\pi a)^{\frac{3}{2}}(2-\nu)(1-r_0^2)^{\frac{1}{2}}}[(2-\nu)r_0 + 2\sum_{n=1}^{\infty}\{1+ \cdots$ 右辺に「- (マイナス)」が必要
				式	$K_{III} = -\frac{4Q(1-r_0^2)^{\frac{1}{2}}}{(\pi a)^{\frac{3}{2}}(2-\nu)}\sum_{n=1}^{\infty}\{1-(1+n)\nu\}r_0^{n-1}\cos n\alpha \sin n\theta$	$K_{III} = \frac{4Q(1-r_0^2)^{\frac{1}{2}}}{(\pi a)^{\frac{3}{2}}(2-\nu)}\sum_{n=1}^{\infty}\{1-(1+n)\nu\}r_0^{n-1}\cos n\alpha \sin n\theta$ 右辺の「- (マイナス)」が不要
2	9	17	679	式	$K_{II} = -\frac{4R}{(\pi a)^{\frac{3}{2}}(2-\nu)(1-r_0^2)^{\frac{1}{2}}} \times$ $\sum_{n=1}^{\infty}\{1-n\nu+(1+n\nu)r_0^2\}r_0^{n-1}\sin n\alpha \cos n\theta$	$K_{II} = -\frac{4R(1-r_0^2)^{\frac{1}{2}}}{(\pi a)^{\frac{3}{2}}(2-\nu)}\sum_{n=1}^{\infty}(1+n\nu)\,r_0^{n-1}\sin n\alpha \cos n\theta$
				式	$K_{III} = \frac{4R}{(\pi a)^{\frac{3}{2}}(2-\nu)(1-r_0^2)^{\frac{1}{2}}} \times$ $\sum_{n=1}^{\infty}\{1-(1+n)\nu+(1+n\nu)r_0^2\}r_0^{n-1}\sin n\alpha \sin n\theta$	$K_{III} = -\frac{4R}{(\pi a)^{\frac{3}{2}}(2-\nu)(1-r_0^2)^{\frac{1}{2}}} \times$ $\sum_{n=1}^{\infty}\{1-(1+n)\nu+(1+n\nu)r_0^2\}r_0^{n-1}\sin n\alpha \sin n\theta$ 右辺に「- (マイナス)」が必要
2	9	22	684	式	$K_I = \frac{\sigma}{E(k)}\left(\frac{\pi b}{a}\right)^{\frac{1}{2}}(a^2\sin^2\beta + b^2\sin^2\beta)^{\frac{1}{4}} = \cdots$	$K_I = \frac{\sigma}{E(k)}\left(\frac{\pi b}{a}\right)^{\frac{1}{2}}(a^2\sin^2\beta + b^2\cos^2\beta)^{\frac{1}{4}} = \cdots$
2	9	26	704	図	1.5 $F_C^{(T)} = \frac{K_{I,A}}{\sigma_T\sqrt{\pi b}}$ $\nu = 0.3$	1.5 $F_C^{(T)} = \frac{K^{(T)}_{I,C}}{\sigma_T\sqrt{\pi b}}$ $\nu = 0.3$
			705	図	$F_C^{(B)} = \frac{K^{(B)}_{I,A}}{\sigma_B\sqrt{\pi b}}$ $\nu = 0.3$	$F_C^{(B)} = \frac{K^{(B)}_{I,C}}{\sigma_B\sqrt{\pi b}}$ $\nu = 0.3$
2	9	54	845	下図	$\frac{f}{2b} = 0.5$ ($\nu = 0.3$) -90° -45° 0° 45° 90° β	$\frac{f}{2b} = 2.0$ ($\nu = 0.3$) -90° -45° 0° 45° 90° β
2	17		1400	式	$c_1 = \sqrt{\frac{\lambda+2\mu}{\rho}} = \sqrt{\frac{E(1-\nu)}{\rho(1+\nu)(1-\nu)}}$, ⋯	$c_1 = \sqrt{\frac{\lambda+2\mu}{\rho}} = \sqrt{\frac{E(1-\nu)}{\rho(1+\nu)(1-2\nu)}}$, ⋯
2	17	24	1452	図	1.0 v/c_1	1.0 v/c_2
				文献	[3] S.Aoki, K.Kishimoto ⋯ under concentrated ⋯ pp.469-474.	[3] S.Aoki, K.Kishimoto ⋯ under concentrated ⋯ pp.301-314.

9.16節と9.17節の訂正は,
K.T. Chau, X. Yang, R.C.K. Wong, "Interactions of a penny-shaped crack with a center of dilatation in an elastic half-space", Mechanics of Materials, Vol. 32, No. 11, pp.645-662 (2000)
を参照.

2014.3.1作成