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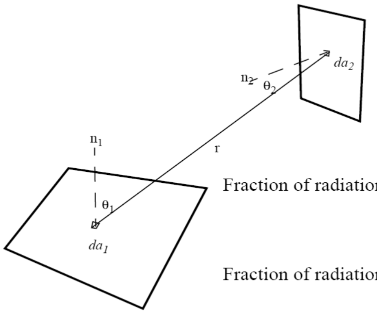

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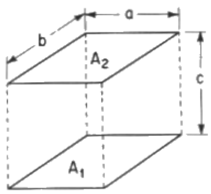

$$F_{1-2} = \frac{2}{\pi XY}\left\{ \ln\left[\frac{(1+X^2)(1+Y^2)}{1+X^2+Y^2}\right]^{1/2} + X\sqrt{1+Y^2}\tan^{-1}\frac{X}{\sqrt{1+Y^2}} + Y\sqrt{1+X^2}\tan^{-1}\frac{Y}{\sqrt{1+X^2}} - X\tan^{-1}X - Y\tan^{-1}Y \right\}$$

X = a/c Y = b/c

a	[mm]	100
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X	[---]	1.000
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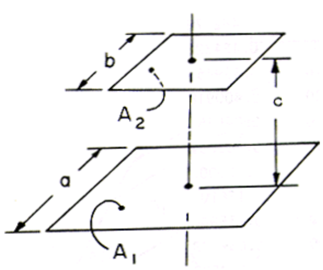

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X	[---]	2.000
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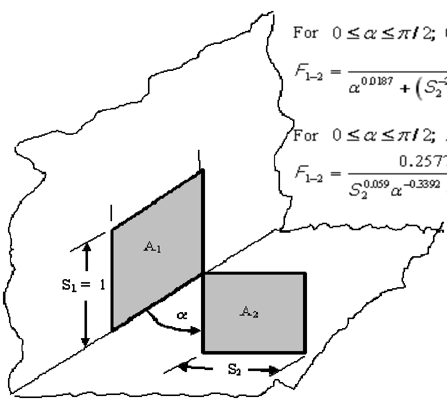

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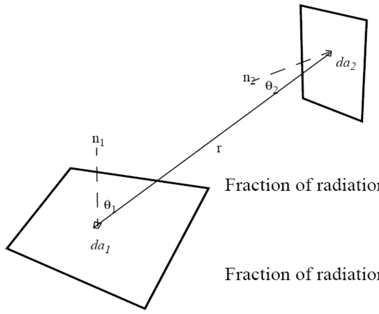

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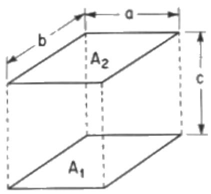

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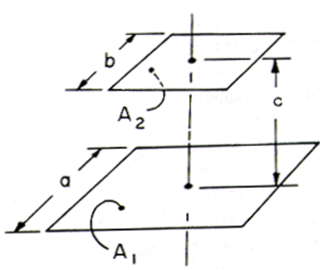

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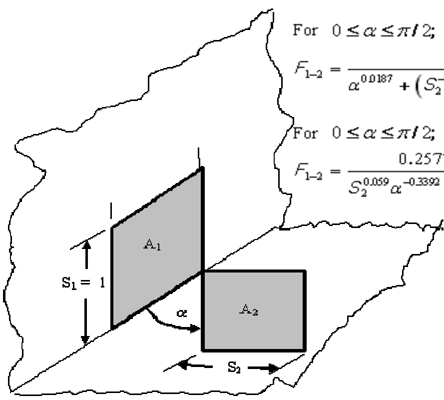

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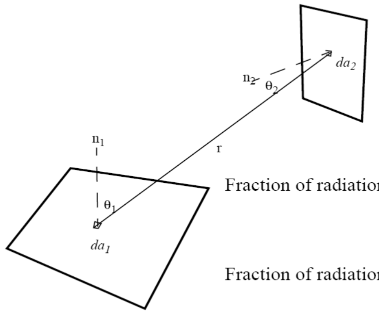

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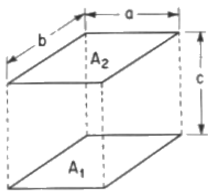

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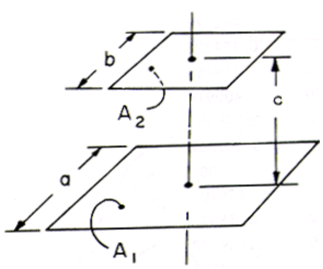

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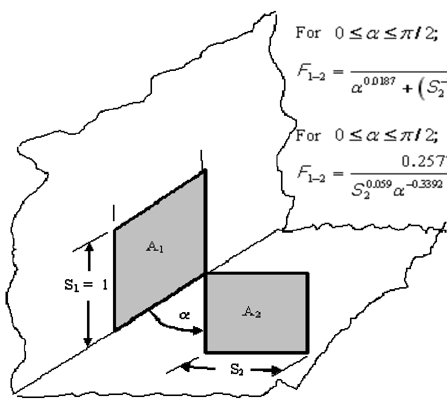

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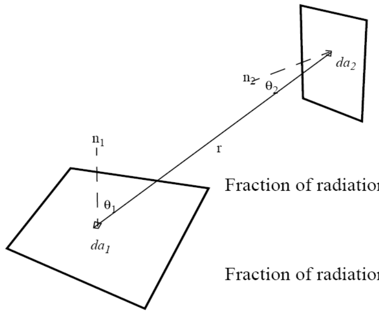

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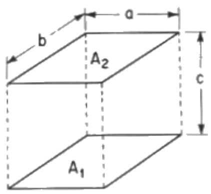

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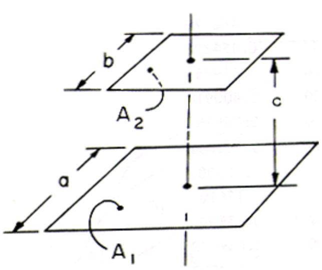

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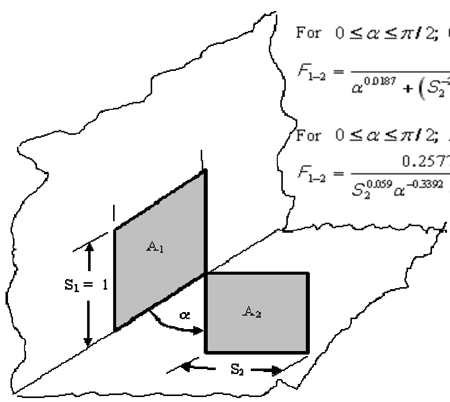

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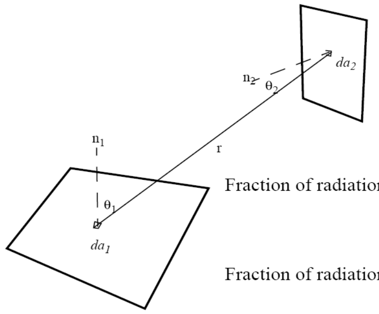

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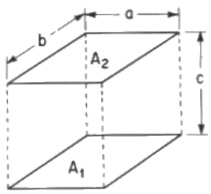

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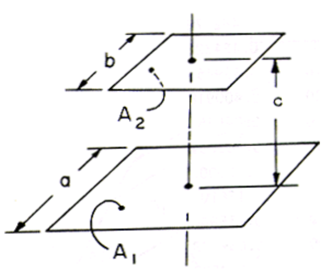

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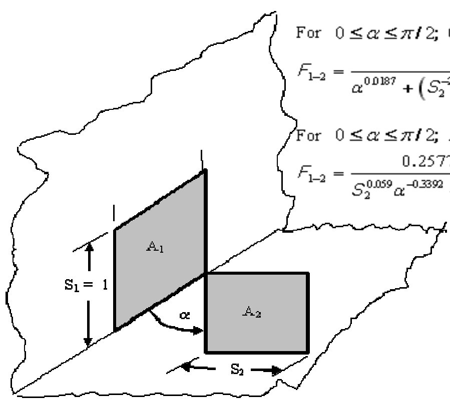

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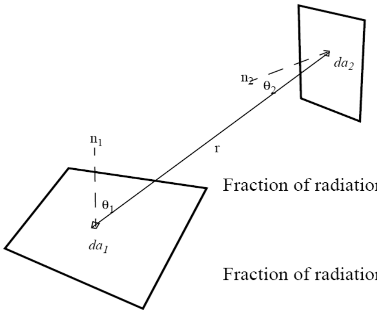

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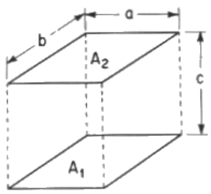

$$F_{1-2} = \frac{2}{\pi XY}\left\{ \ln\left[\frac{(1+X^2)(1+Y^2)}{1+X^2+Y^2}\right]^{1/2} + X\sqrt{1+Y^2}\tan^{-1}\frac{X}{\sqrt{1+Y^2}} + Y\sqrt{1+X^2}\tan^{-1}\frac{Y}{\sqrt{1+X^2}} - X\tan^{-1}X - Y\tan^{-1}Y \right\}$$

X = a/c Y = b/c

a	[mm]	100
b	[mm]	100
c	[mm]	100
X	[---]	1.000
Y	[---]	1.000
$F_{1\rightarrow 2}$	[---]	0.1998

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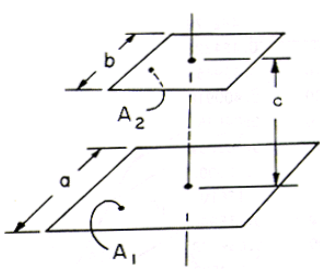
A = a/c B = b/a X = A.(1+B) Y = A.(1-B)



$$F_{1-2} = \frac{1}{\pi A^2}\left\{ \ln\frac{[A^2(1+B^2)+2]^2}{(Y^2+2)(X^2+2)} + (Y^2+4)^{1/2}\left[Y\tan^{-1}\frac{Y}{(Y^2+4)^{1/2}} - X\tan^{-1}\frac{X}{(Y^2+4)^{1/2}}\right] + (X^2+4)^{1/2}\left[X\tan^{-1}\frac{X}{(X^2+4)^{1/2}} - Y\tan^{-1}\frac{Y}{(X^2+4)^{1/2}}\right]\right\}$$

For $A < 0.2$:

$$F_{1-2} = \frac{(AB)^2}{\pi}$$

a	[mm]	100
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A	[mm]	1.00
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X	[---]	2.000
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K1	[---]	0.2877
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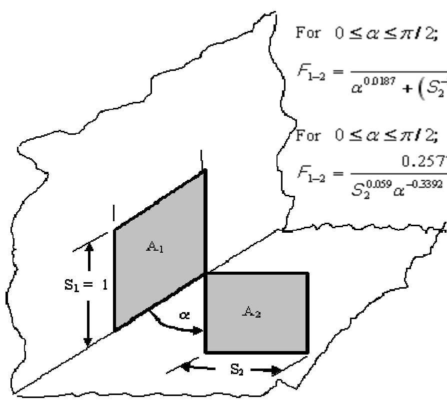

For $0 \le \alpha \le \pi/2$; $0.1 \le S_2 \le 2.0$ (*max error* ±9.08%)

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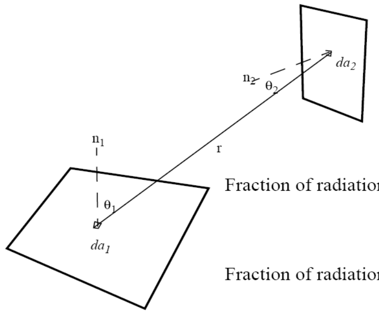
This section deals with the Analytical Solutions of Shape Factor available for some simplified geometries



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Fraction of radiation from A1 striking A2 $\quad F_{12} = \frac{F}{A_1}$

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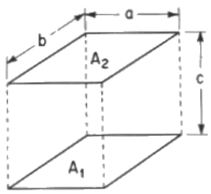

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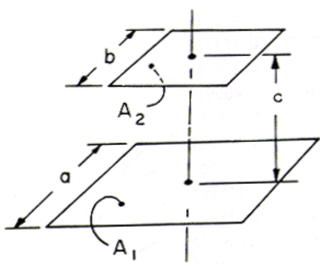

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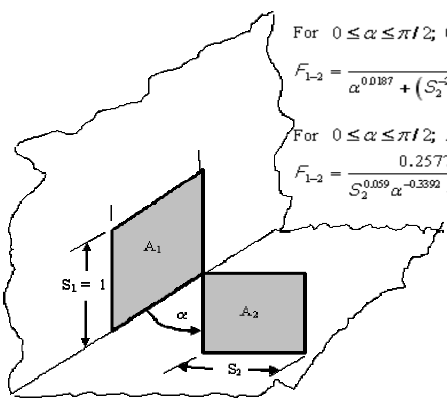

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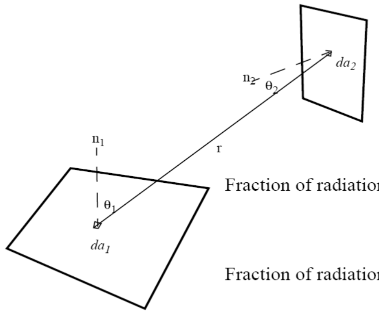

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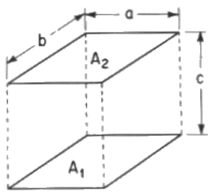

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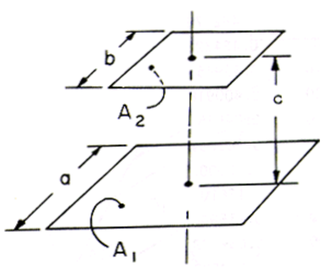

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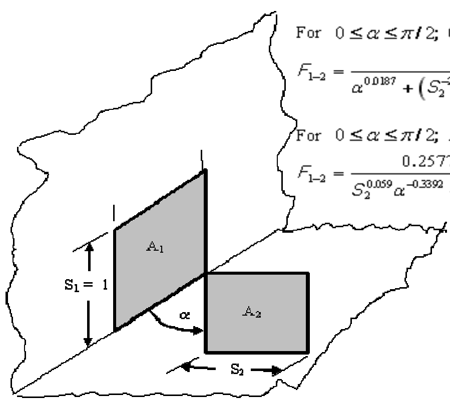

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