

$$= \frac{-2R \pm 2.582R}{2}$$

And, finally

$$r(+) = \frac{-2R + 2.582R}{2} = 0.291R$$

$$r(-) = \frac{-2R - 2.582R}{2} = -2.291R$$

Of course, only the  $r(+)$  root is possible, and, therefore,  $r = 0.291R$ .

Thus, for a host atom of radius  $R$ , the size of an interstitial site for FCC is approximately 1.4 times that for BCC.