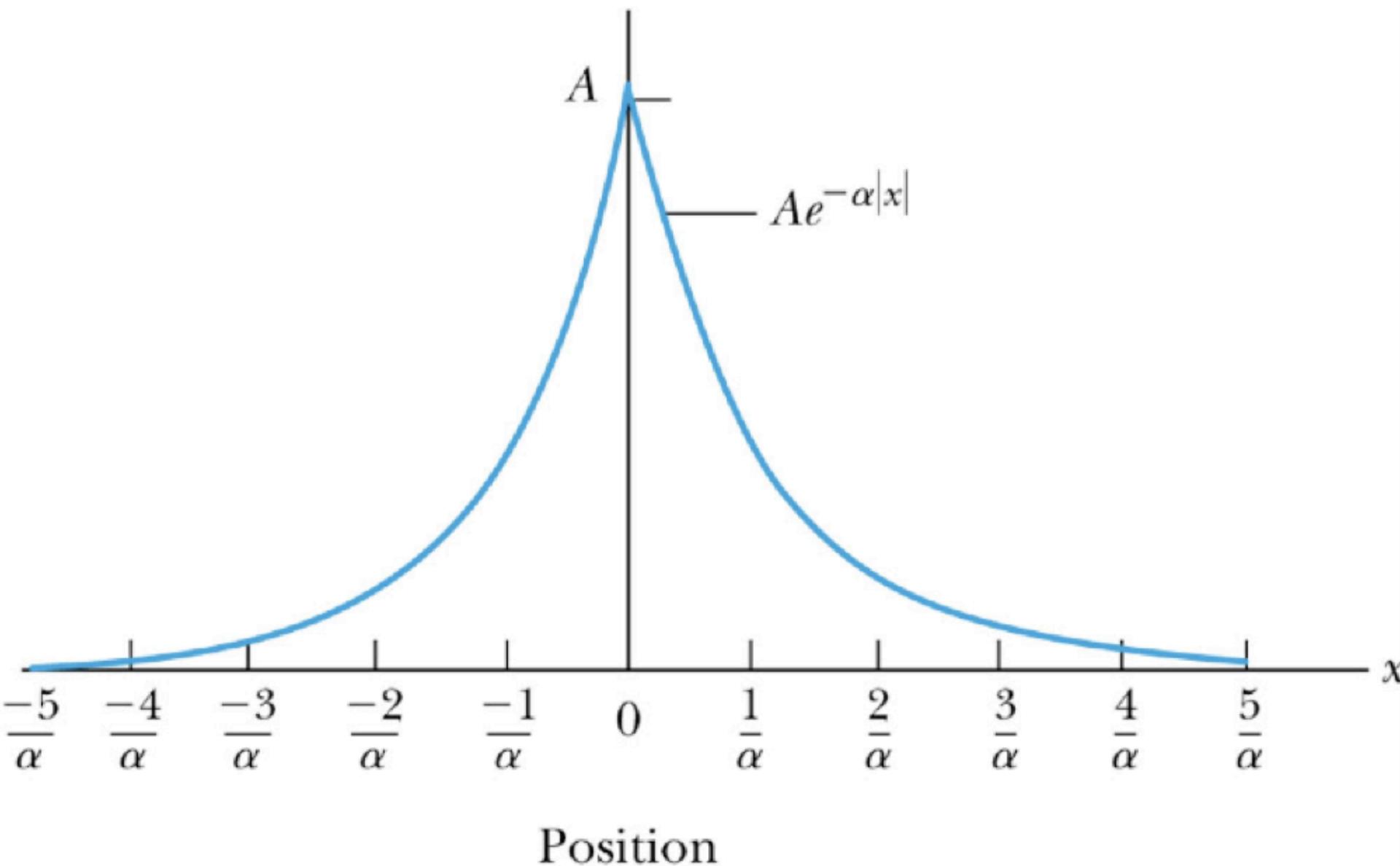
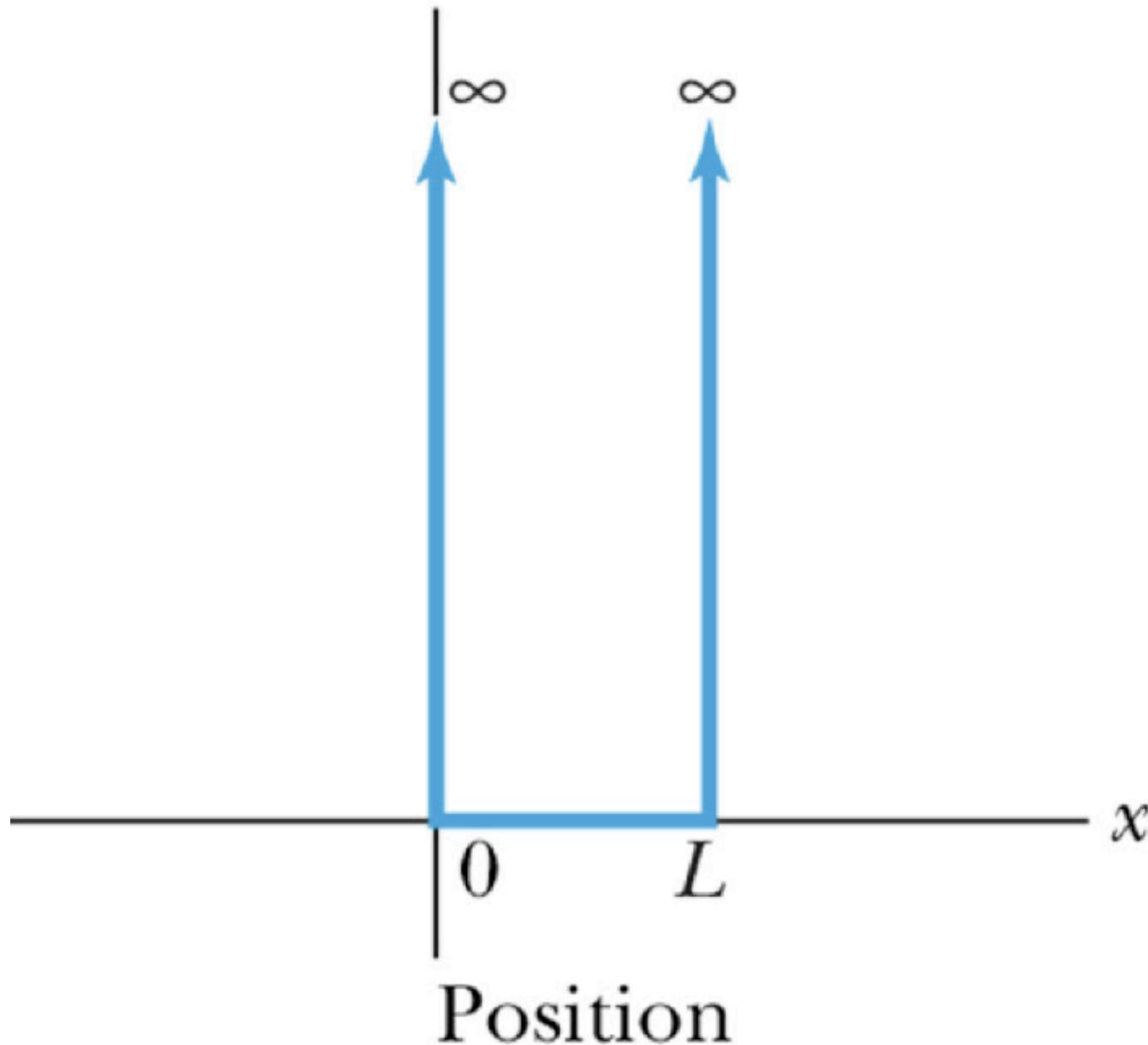
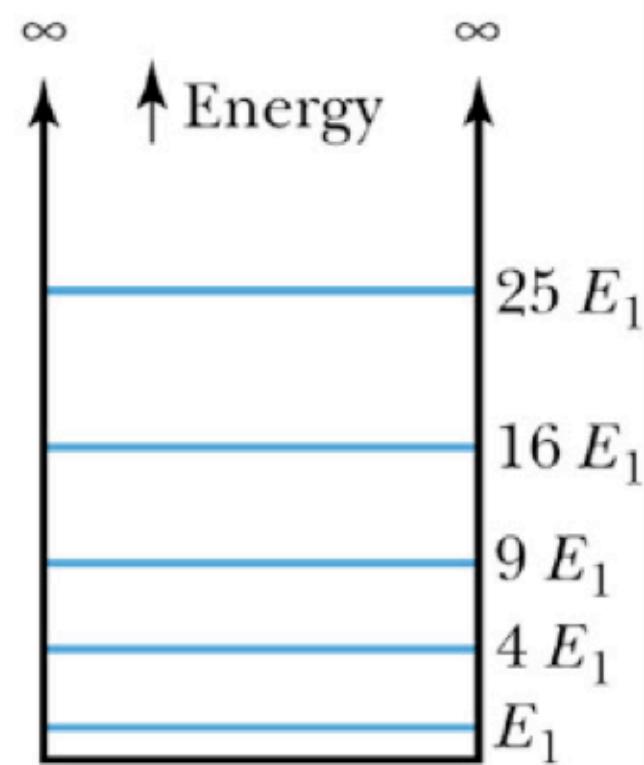
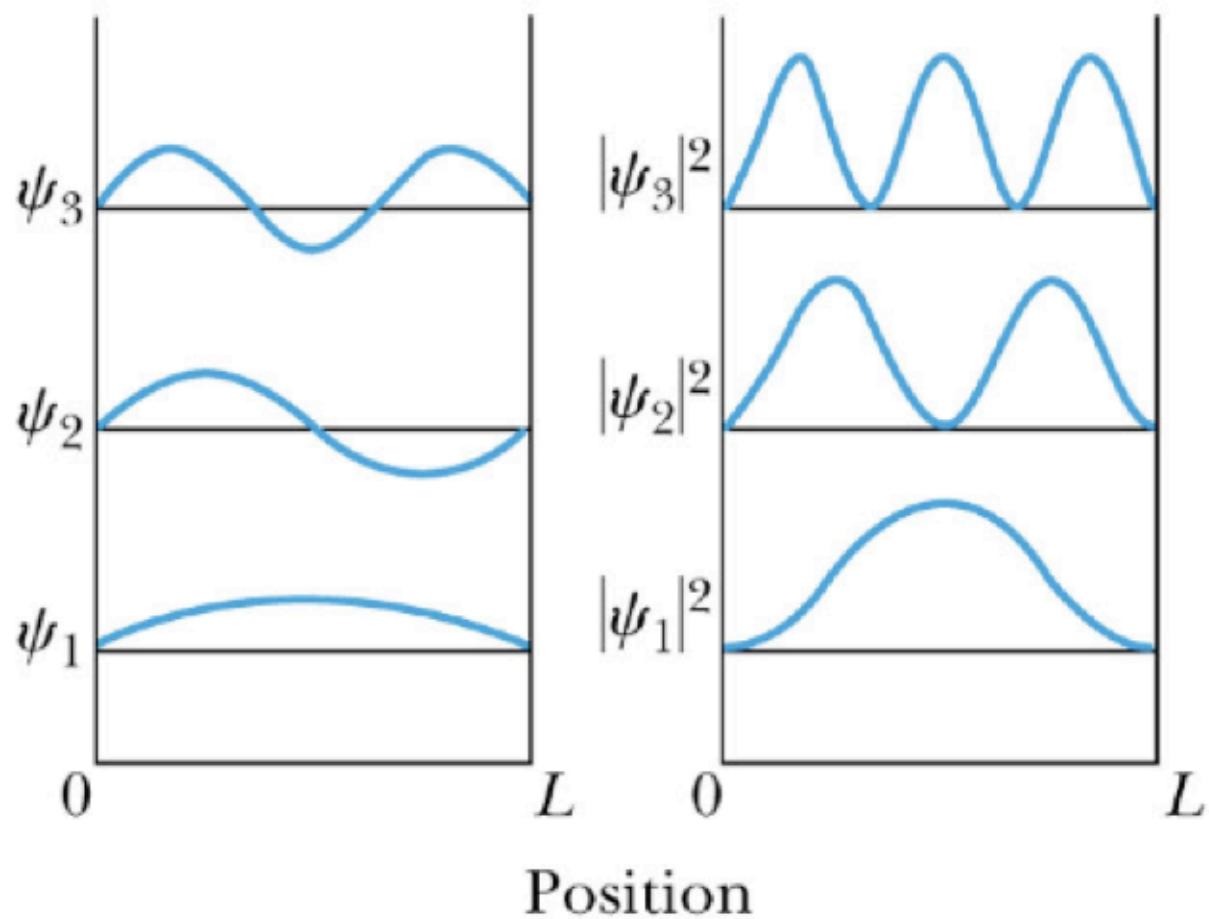
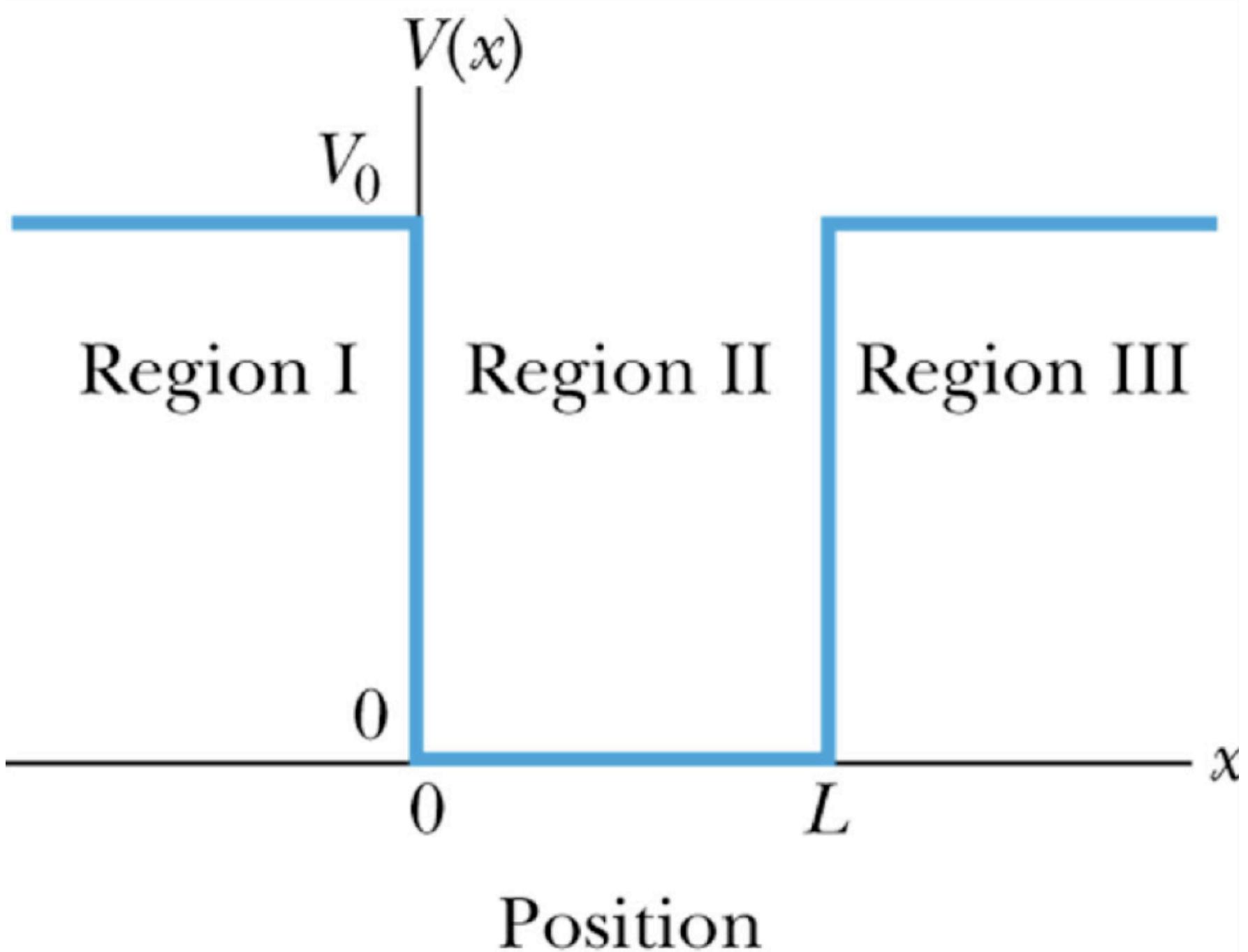


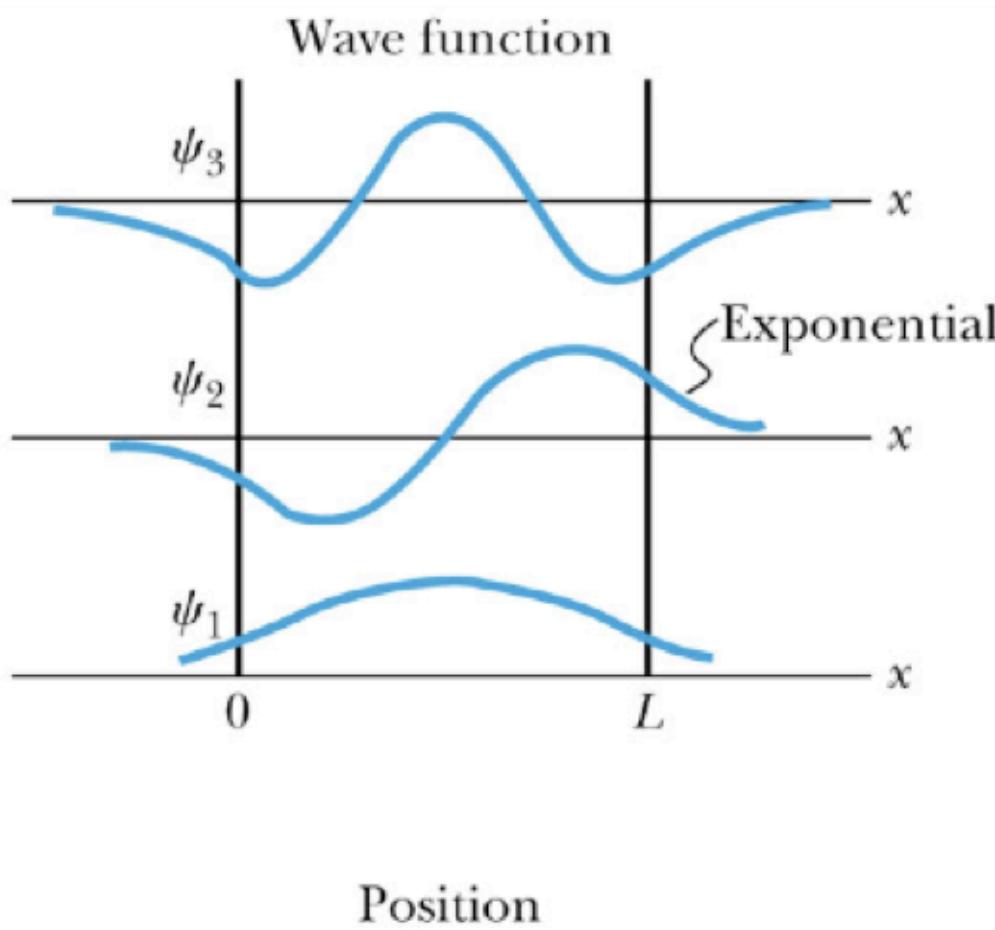
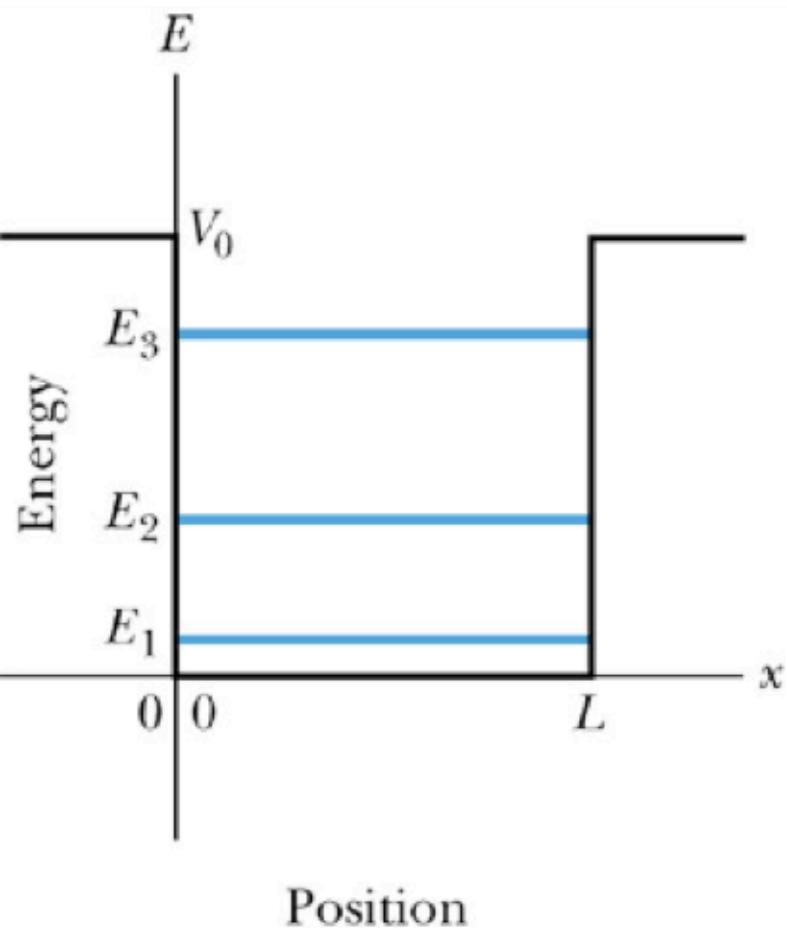
# Wave function

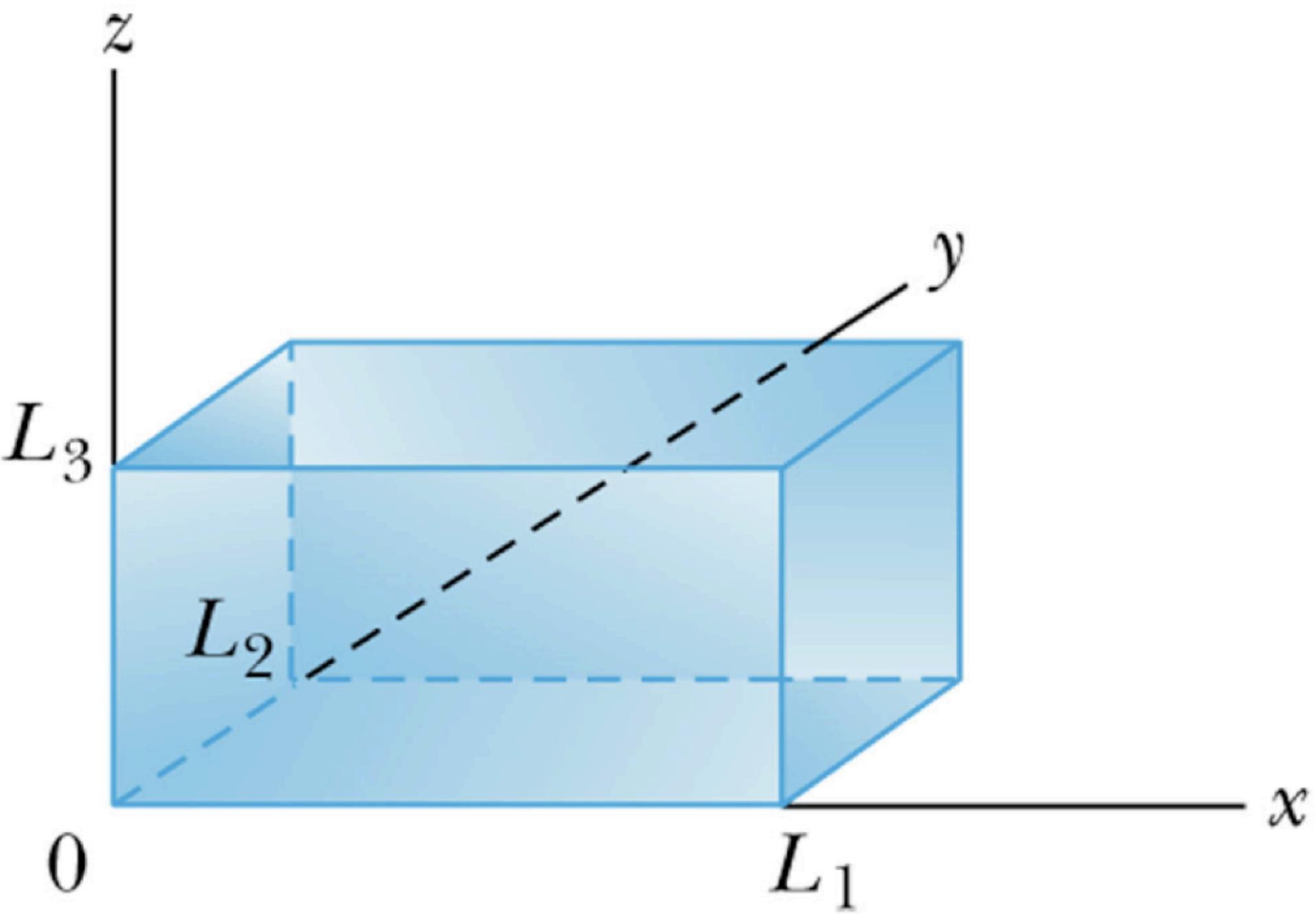


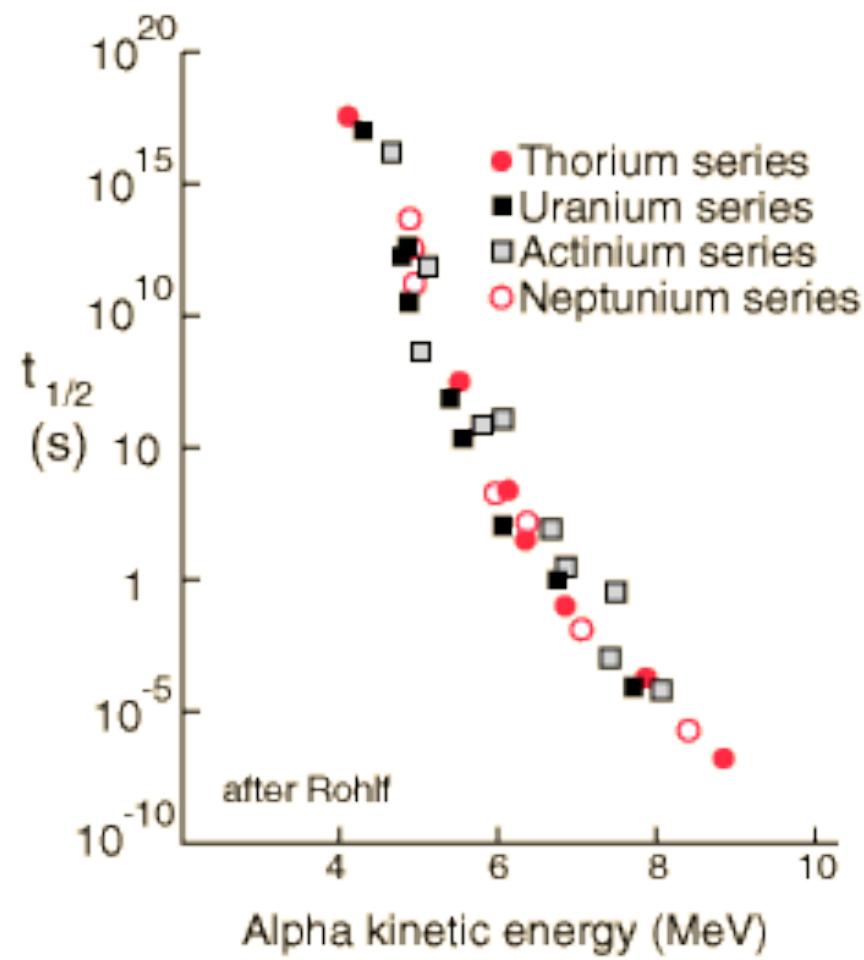
$V(x)$ 

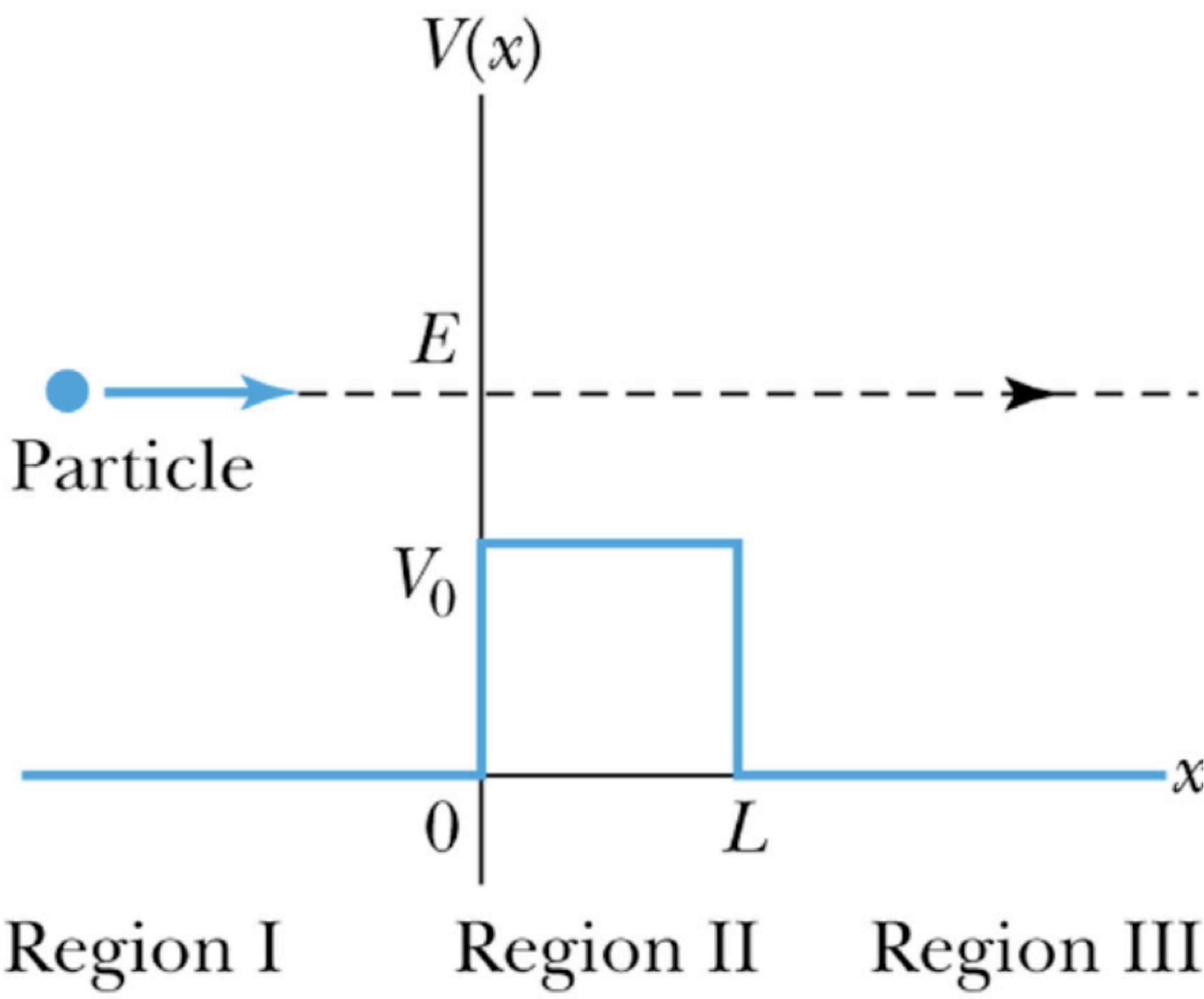


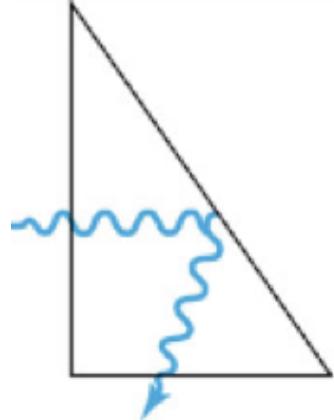




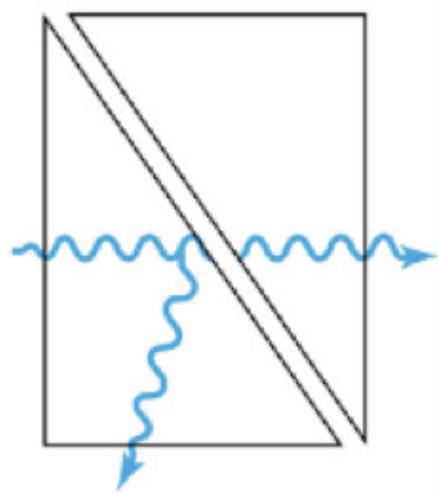








(a)



(b)

$$V(x)$$

Incident



Reflected



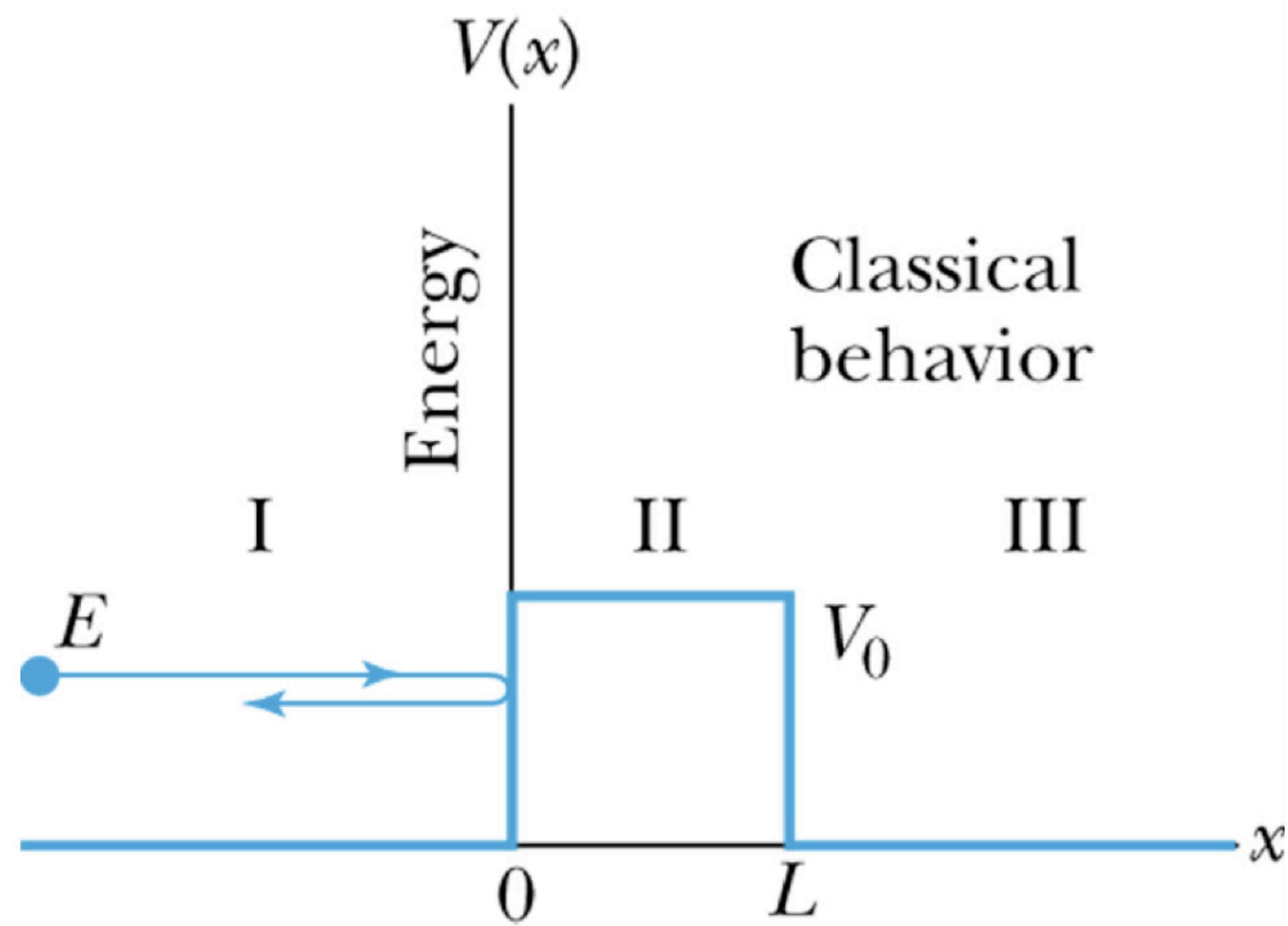
Transmitted

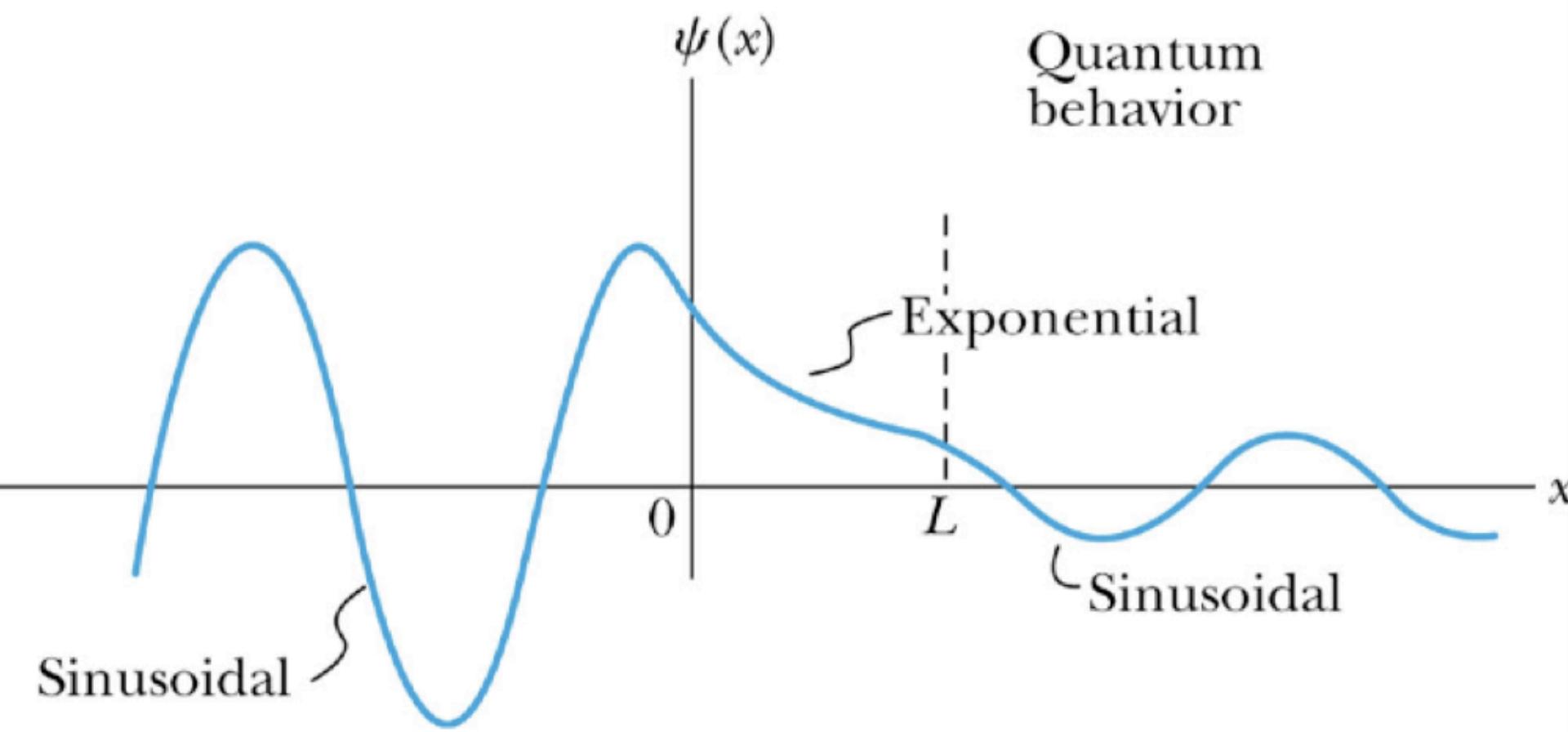


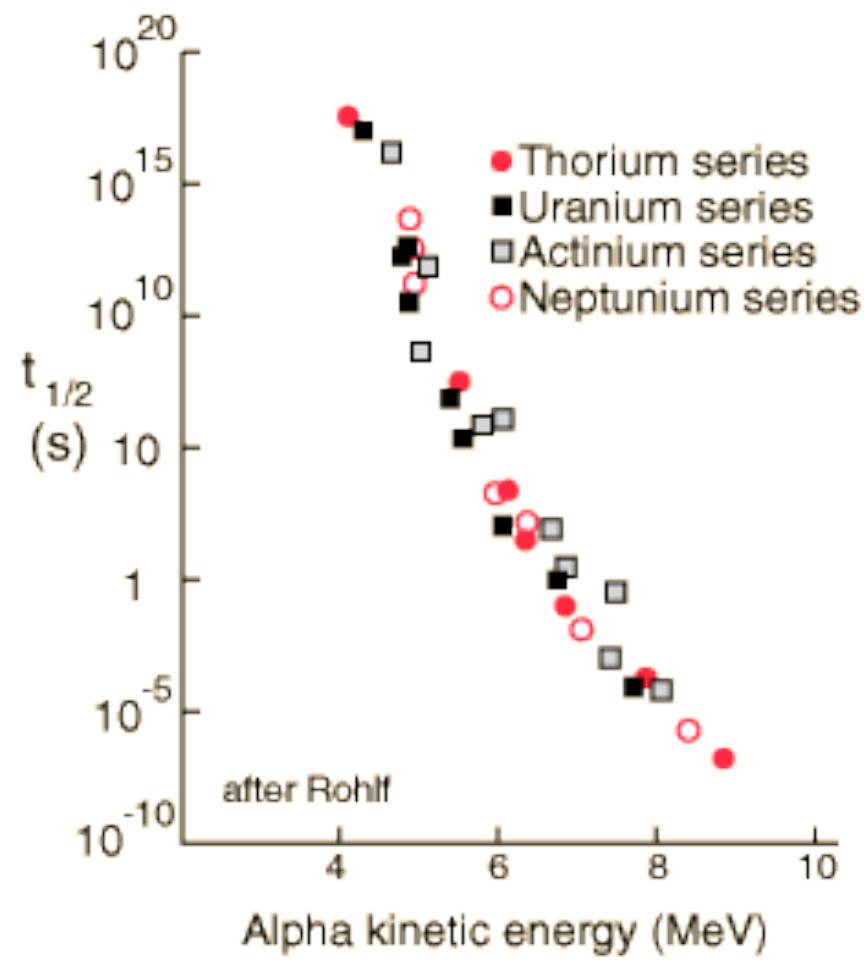
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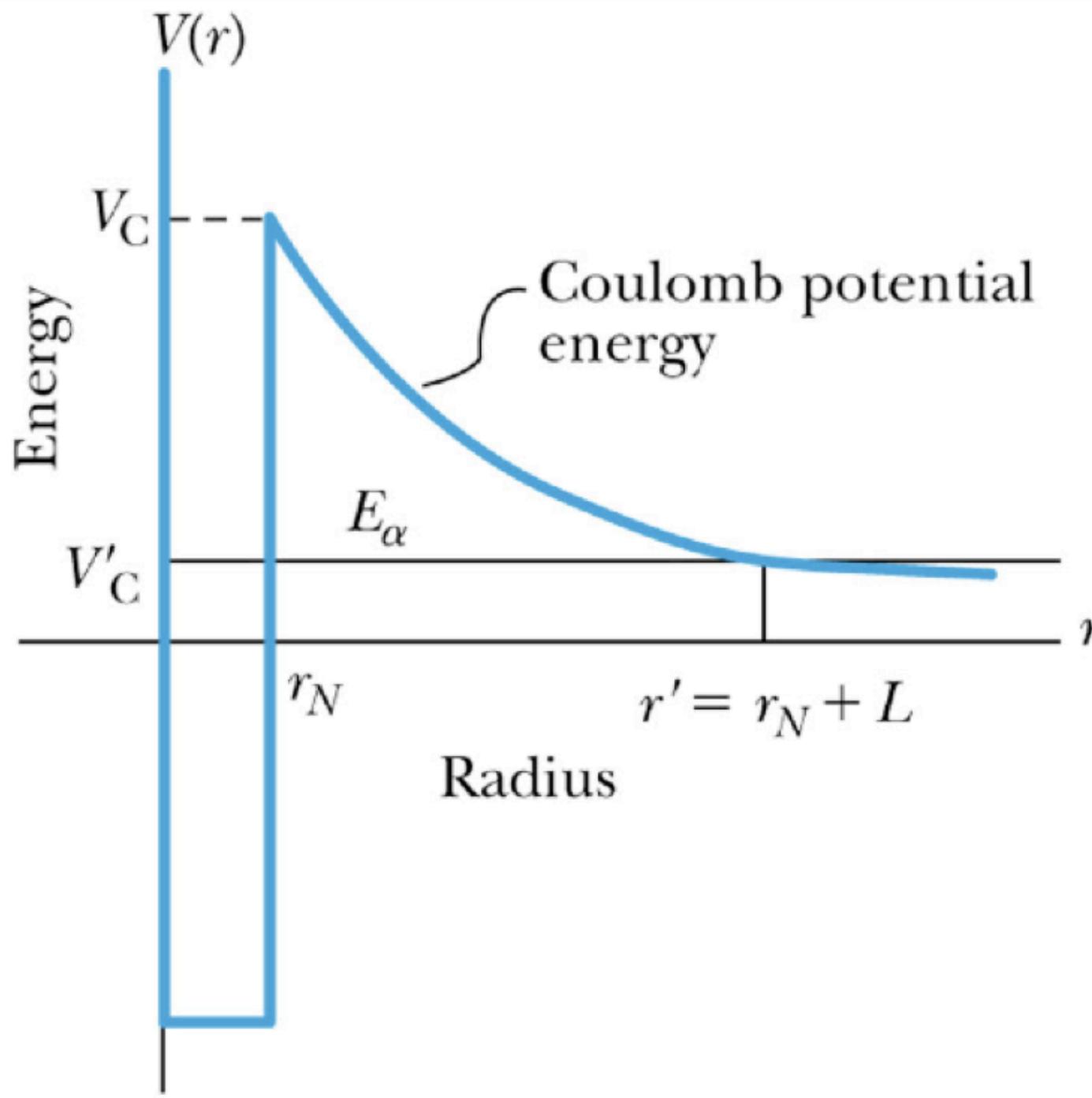
$L$

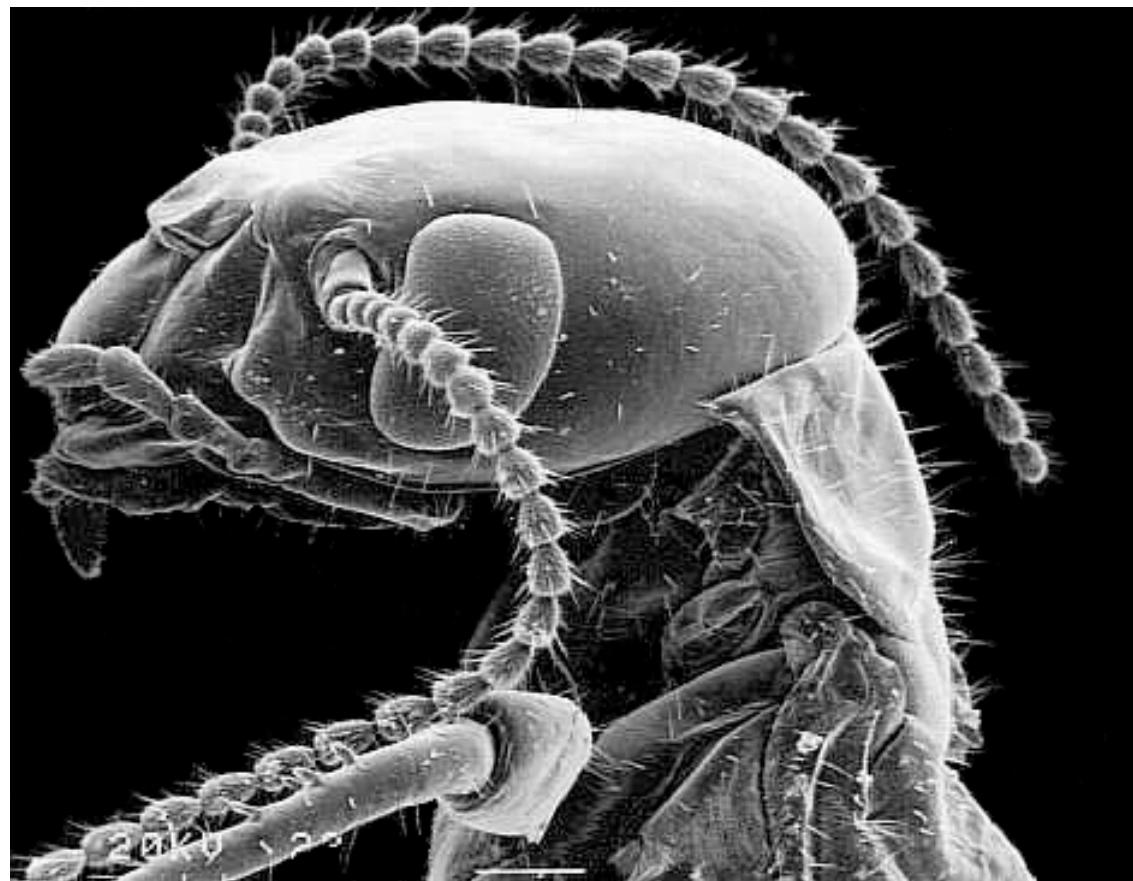
$x$

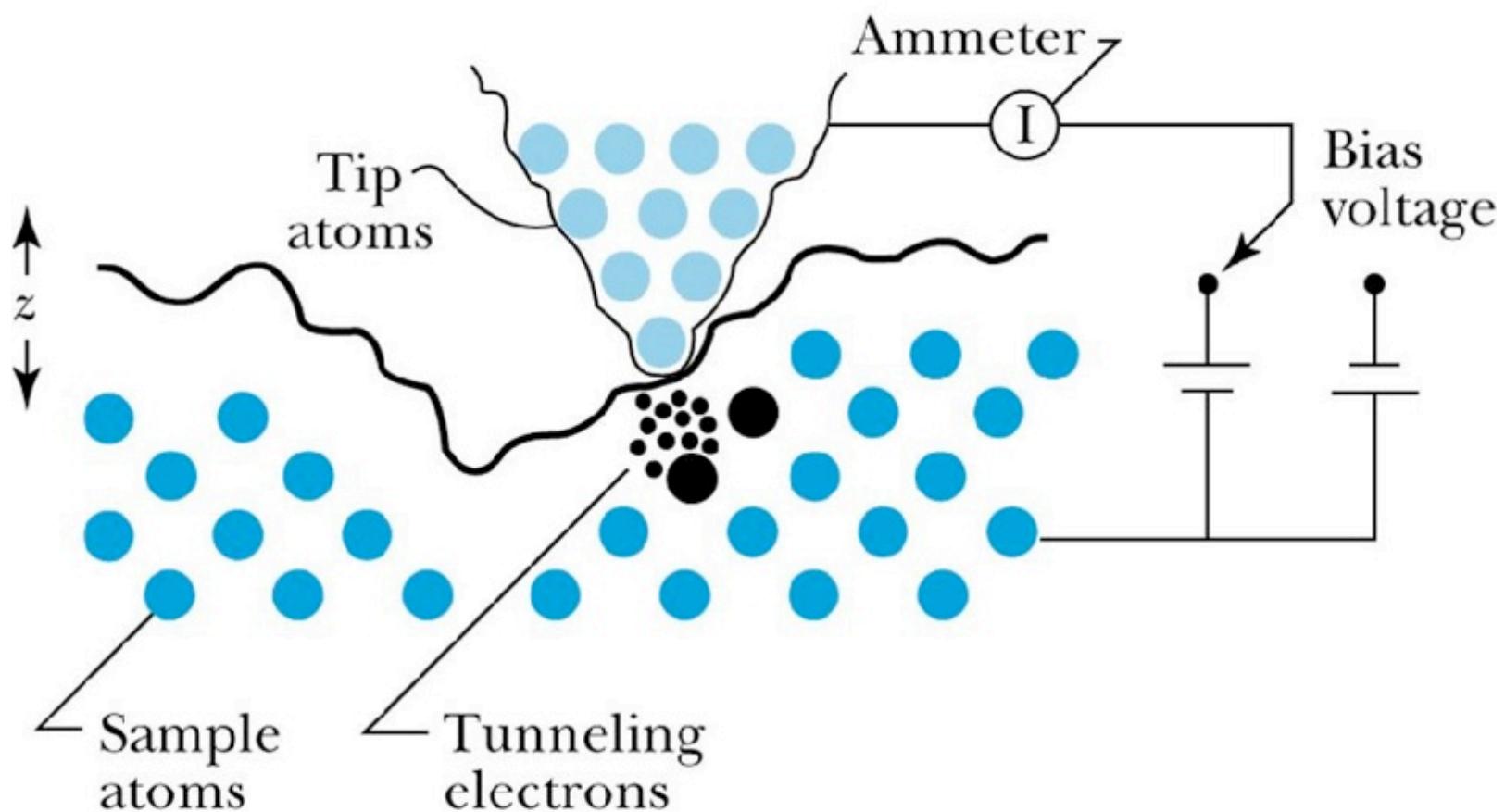


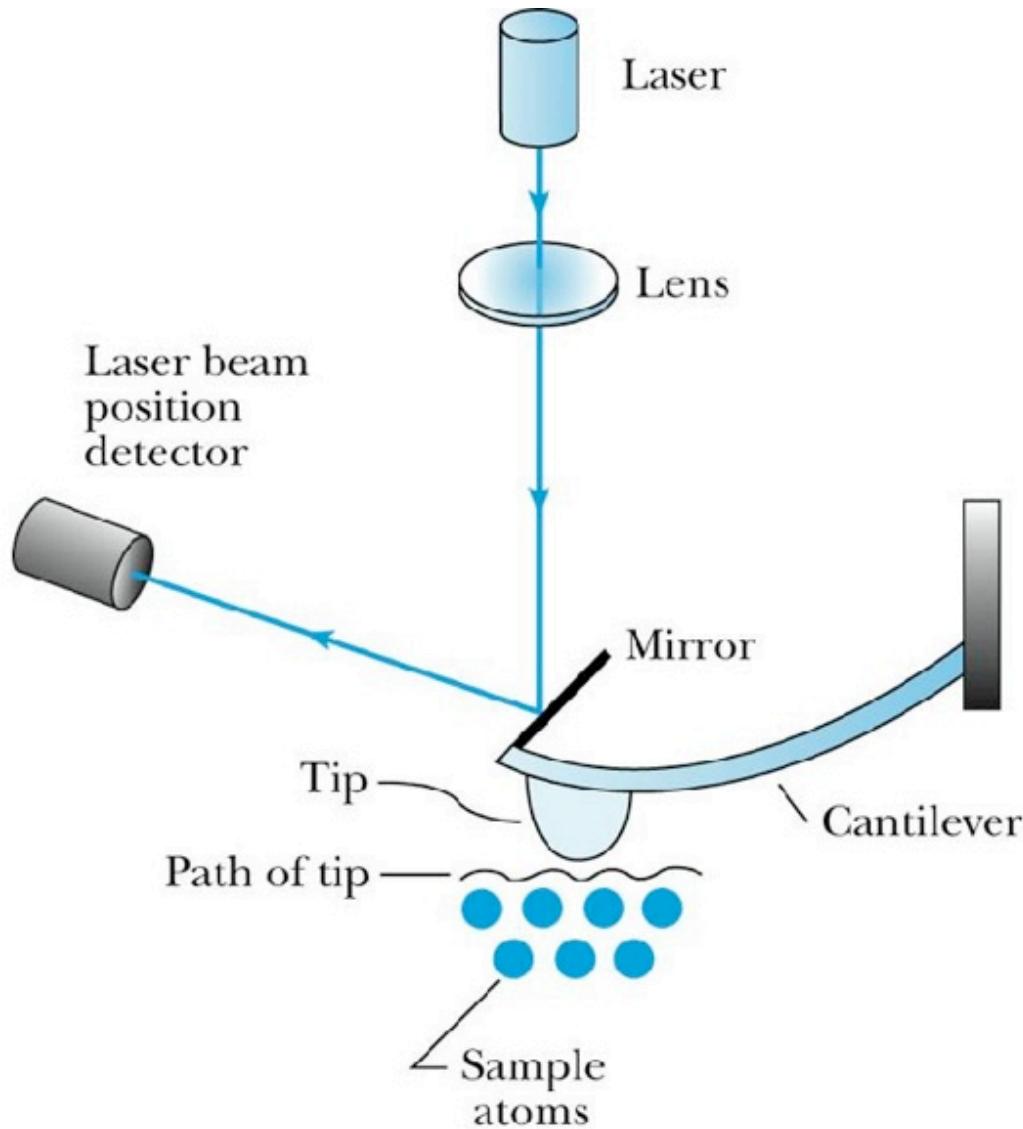


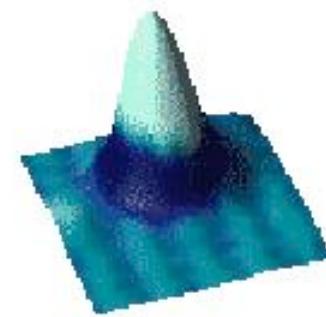
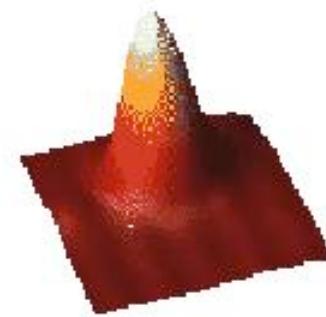
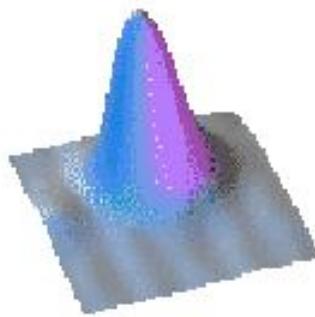
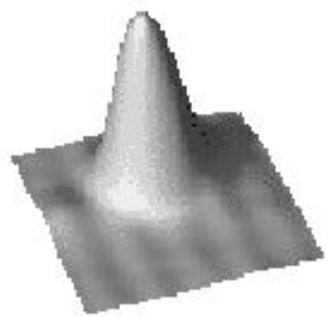
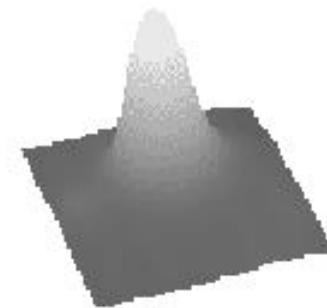
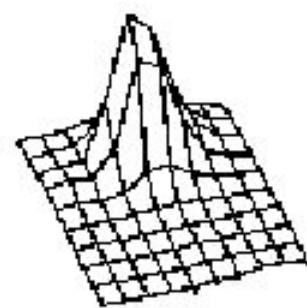
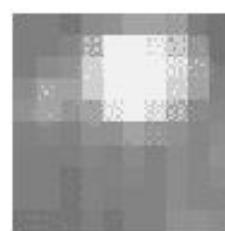
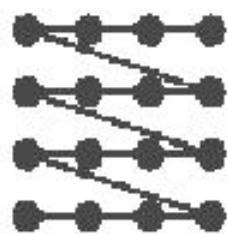


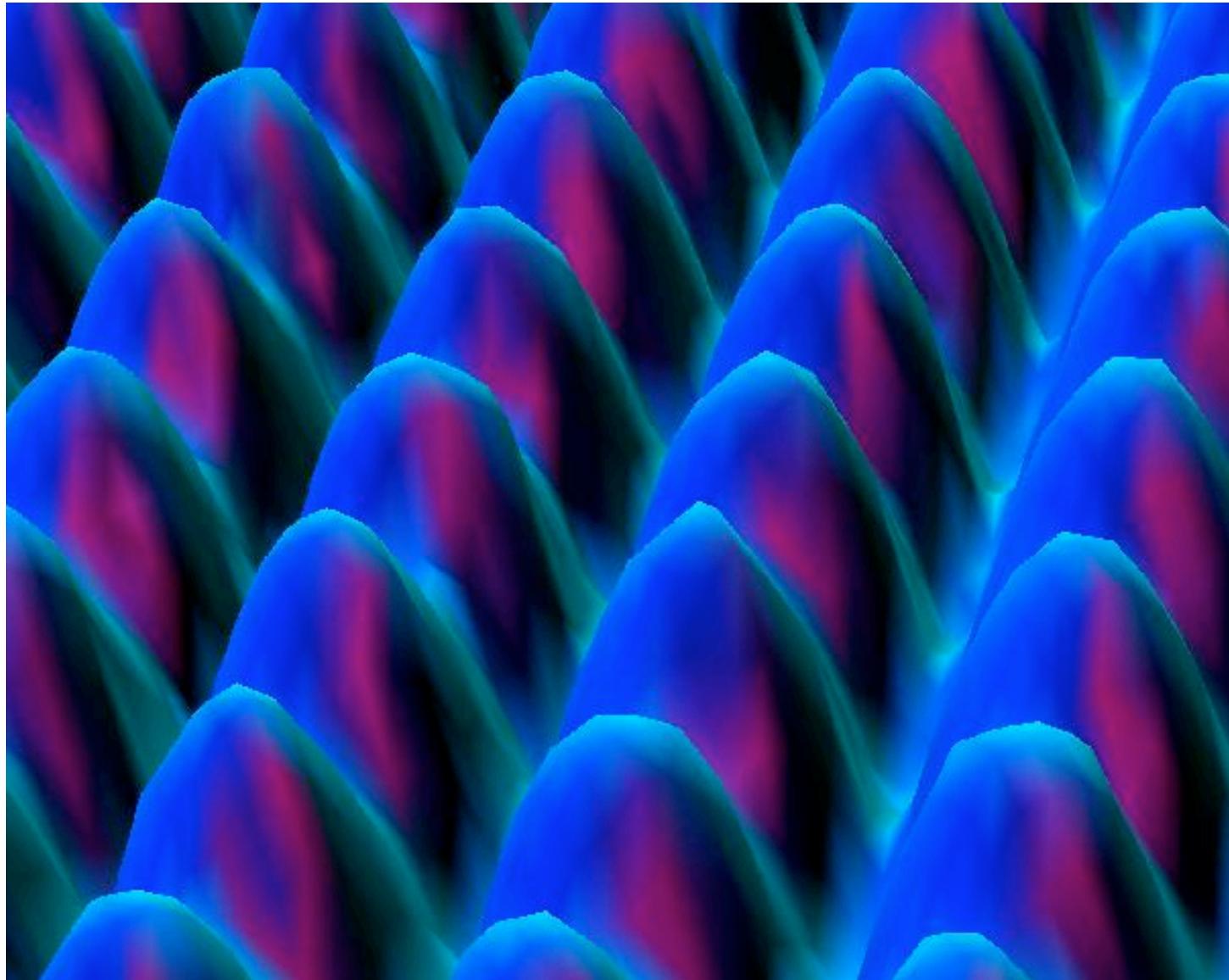


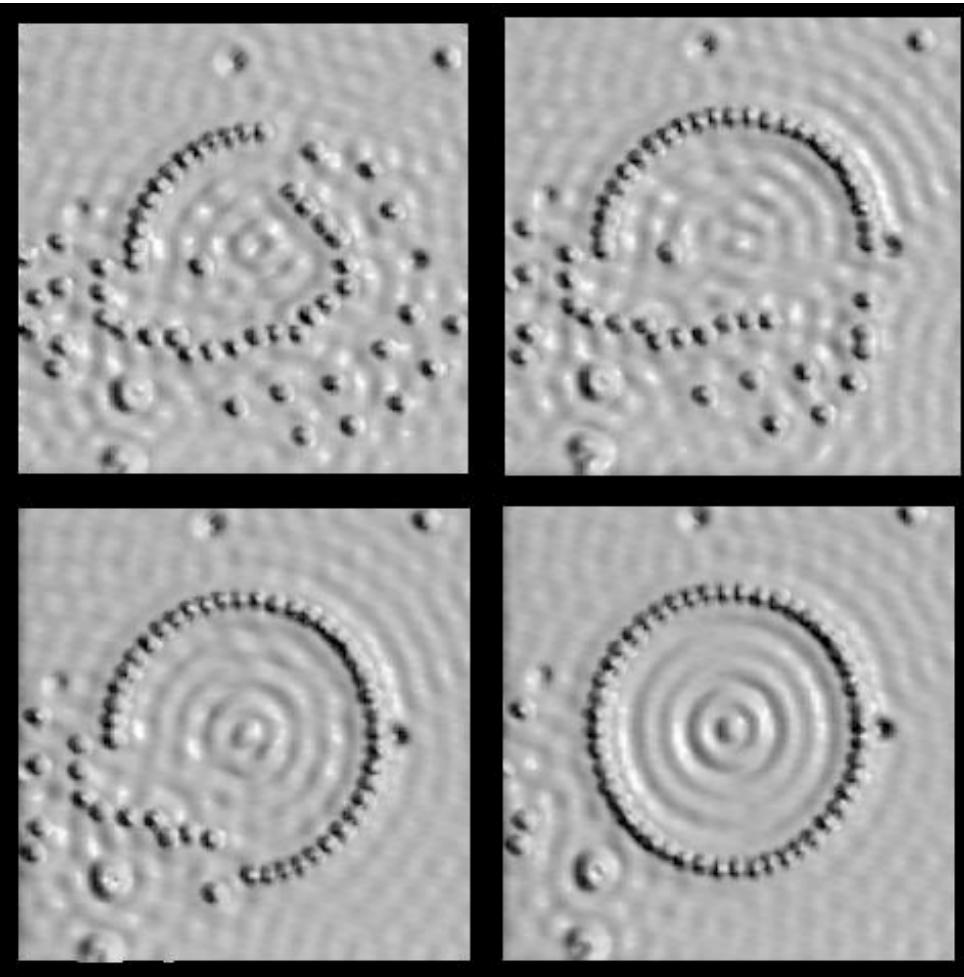


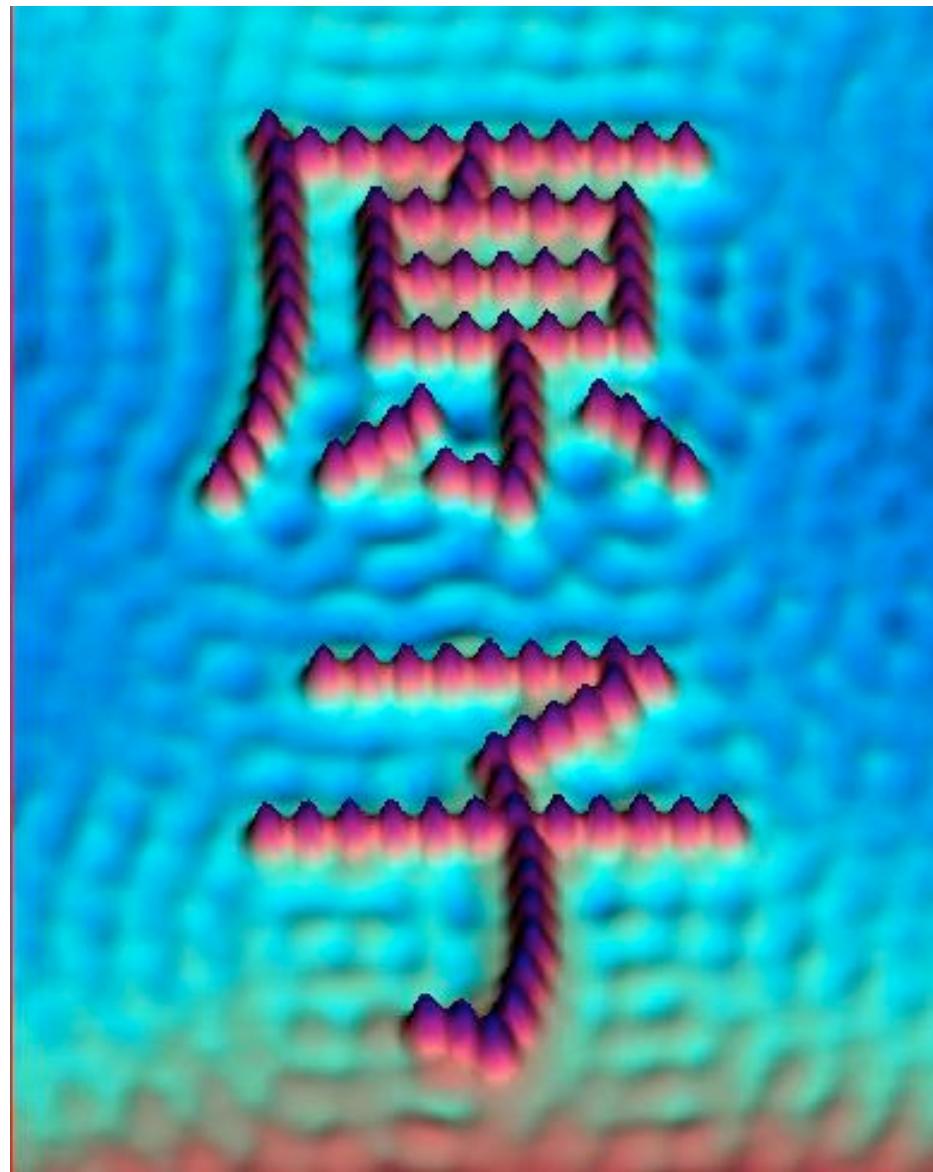


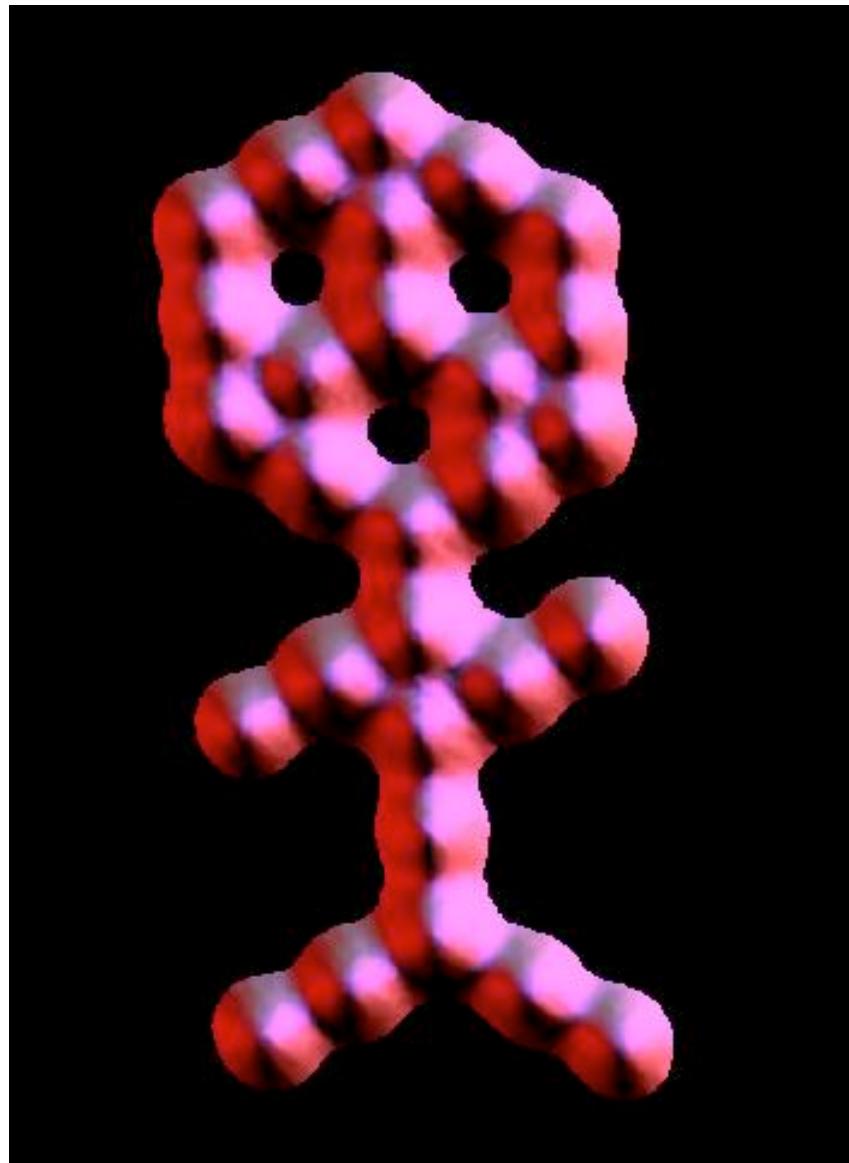


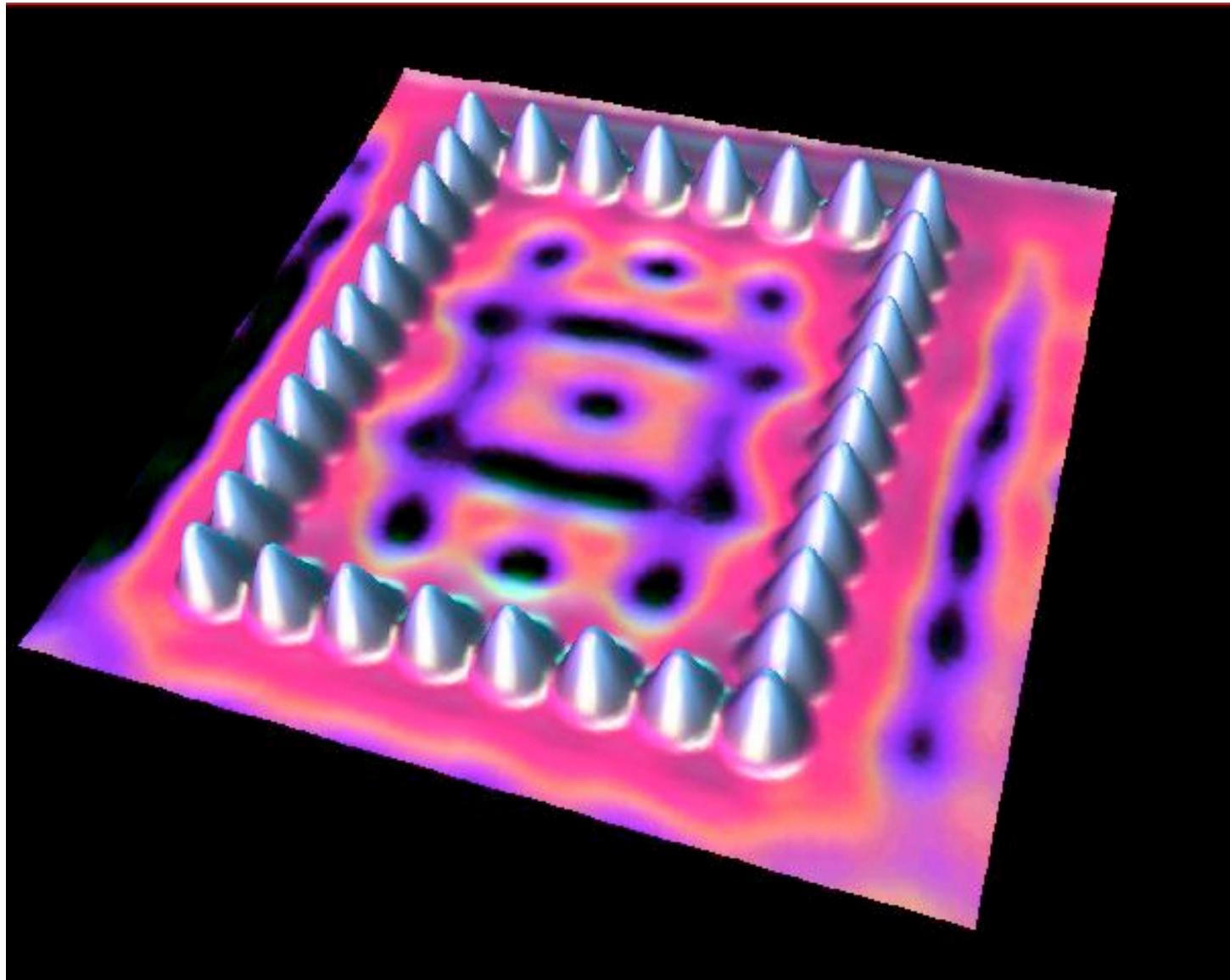


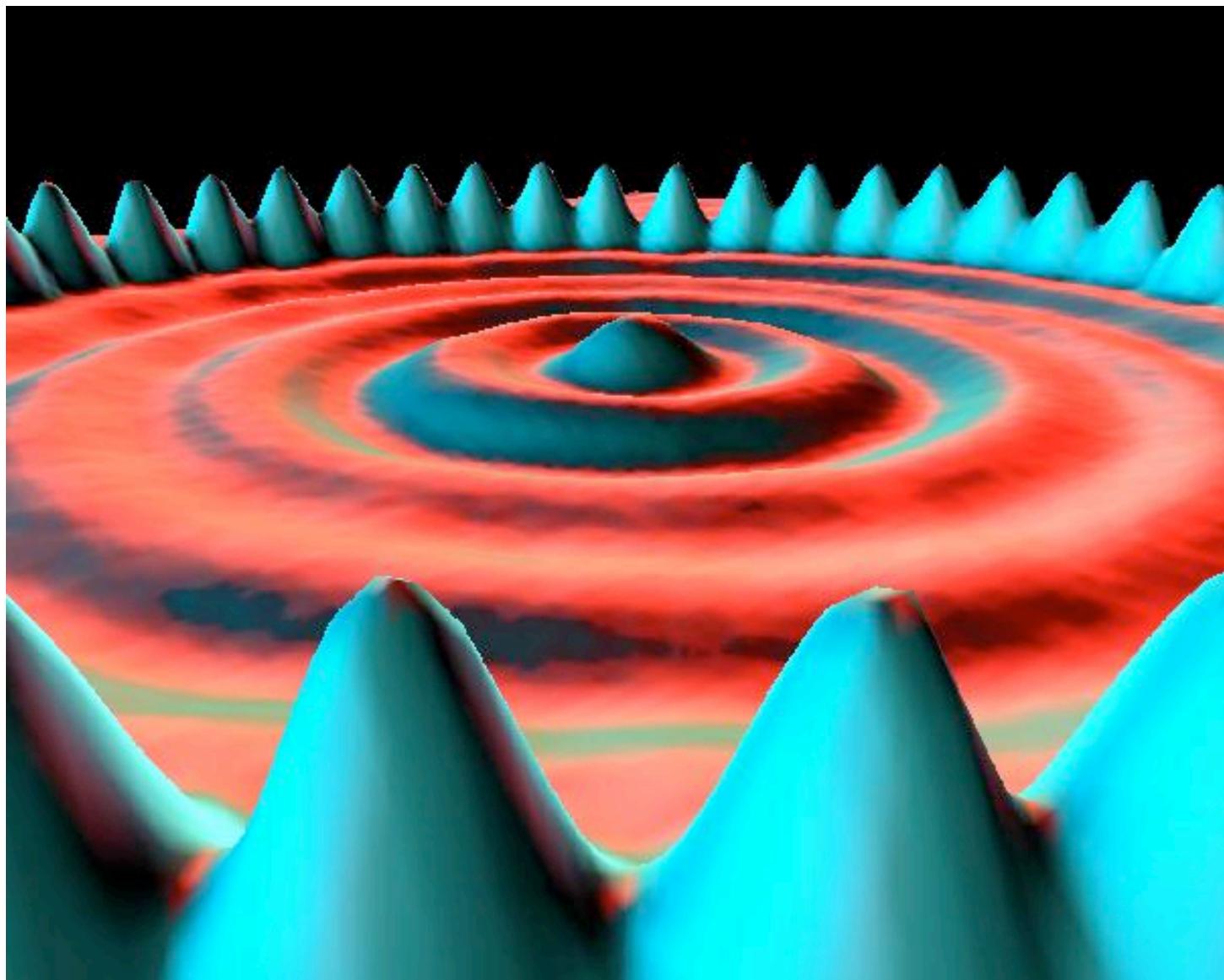


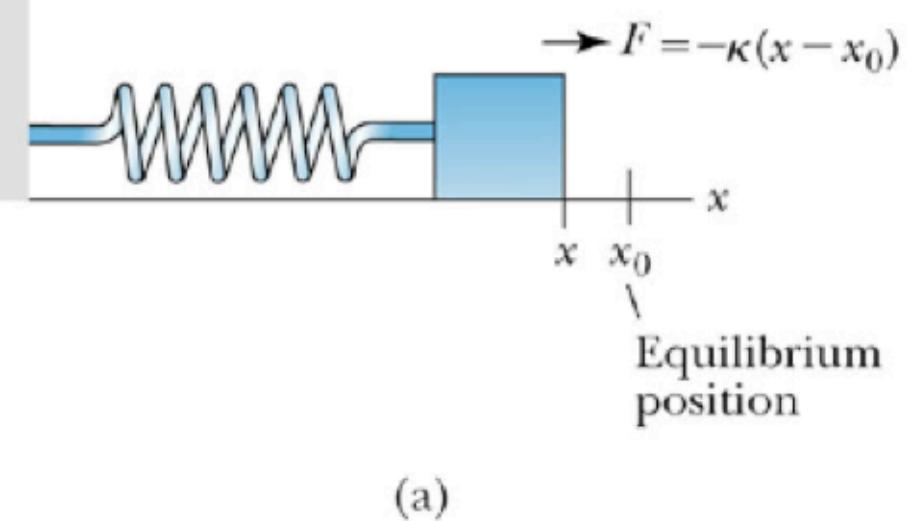




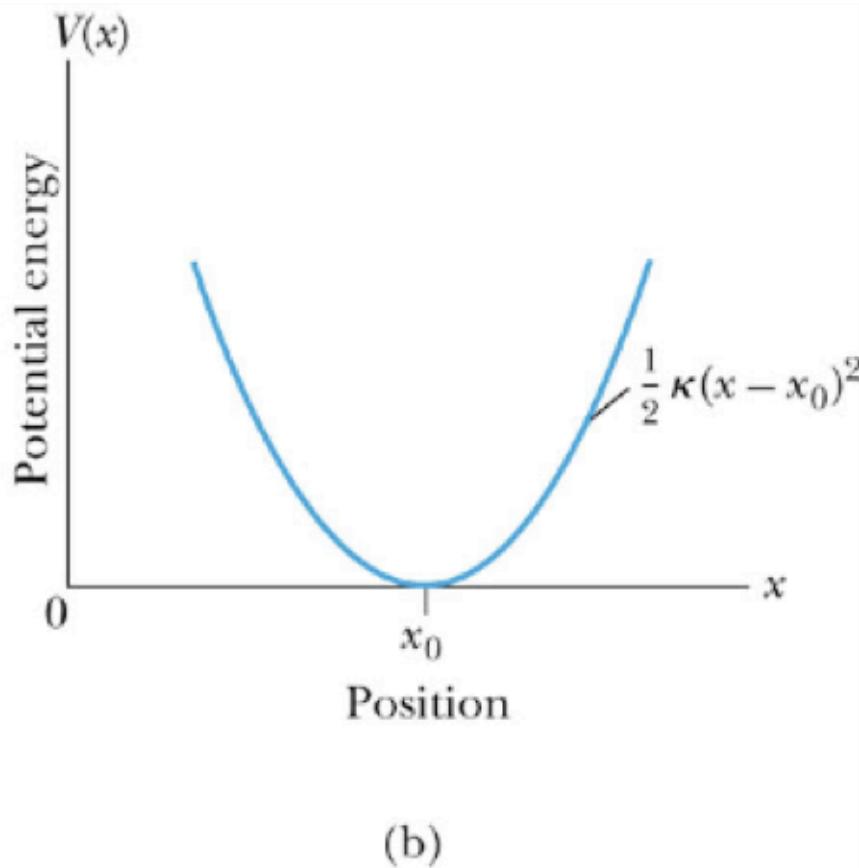




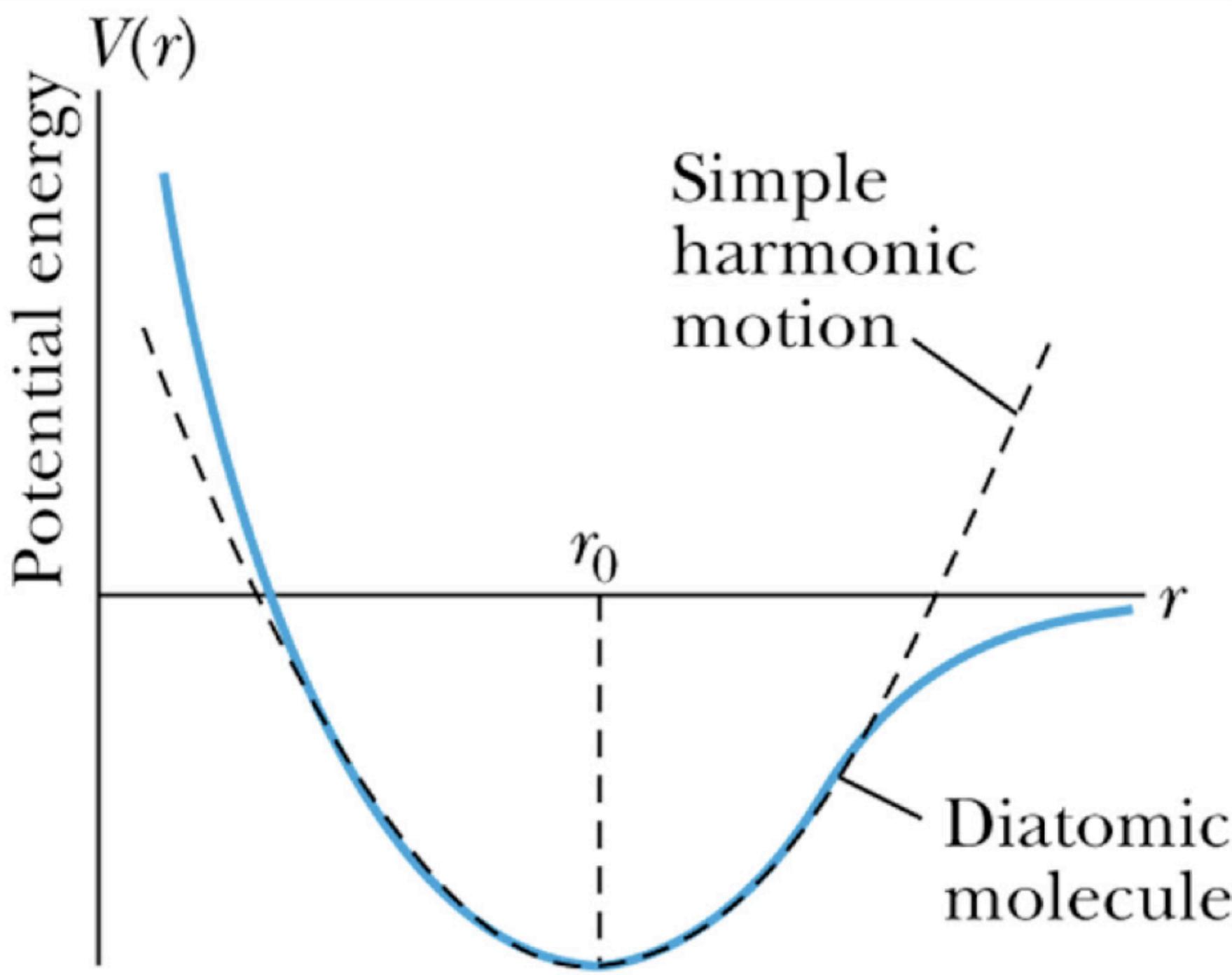


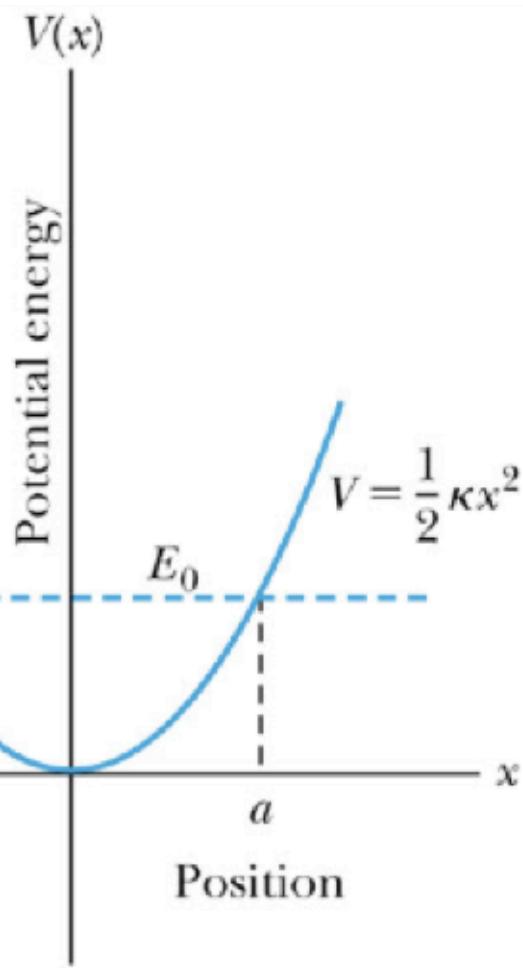


(a)

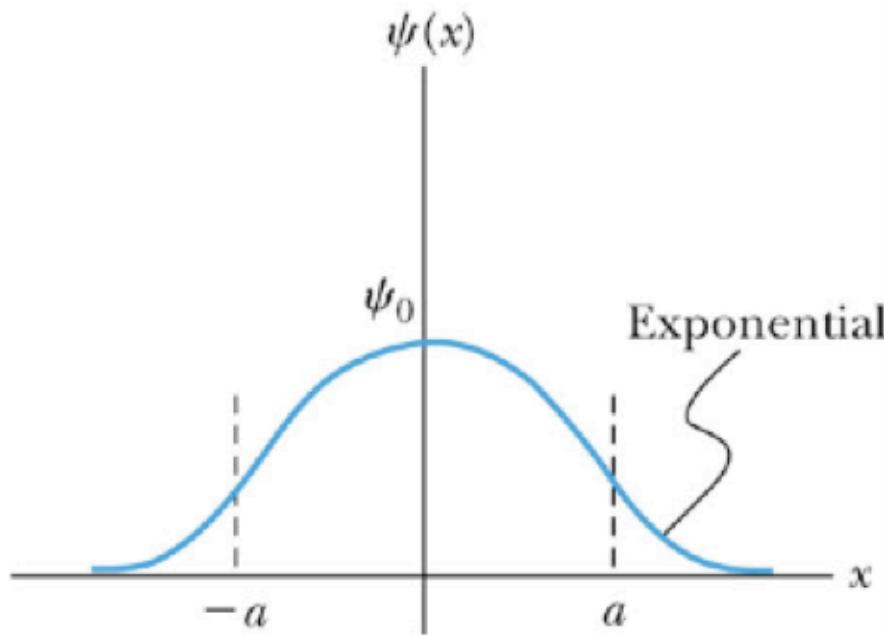


(b)

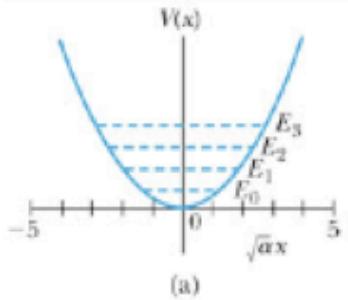




(a)



(b)



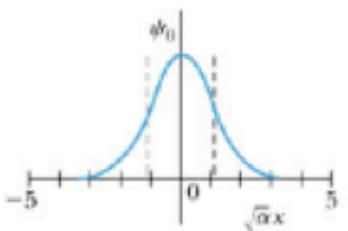
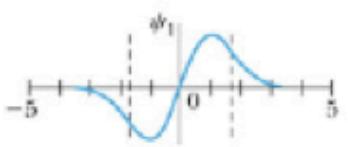
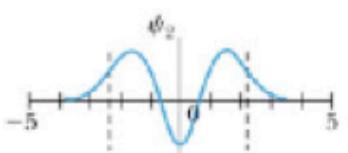
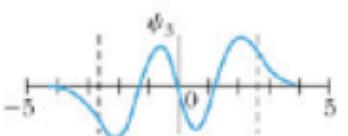
Wave functions

$$\psi_3(x) = \left(\frac{\alpha}{\pi}\right)^{1/4} \frac{1}{\sqrt{3}} (-i\sqrt{\alpha}x)(2\alpha x^2 - 3)e^{-\alpha x^2/2}$$

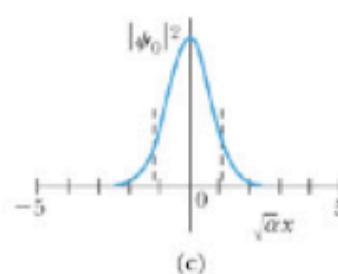
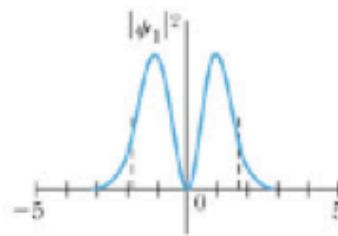
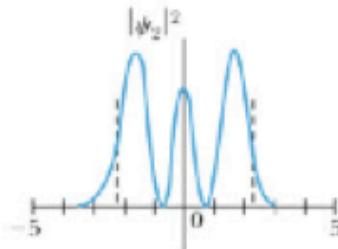
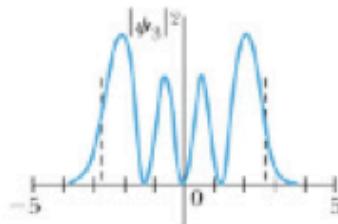
$$\psi_2(x) = \left(\frac{\alpha}{\pi}\right)^{1/4} \frac{1}{\sqrt{2}} (2\alpha x^2 - 1)e^{-\alpha x^2/2}$$

$$\psi_1(x) = \left(\frac{\alpha}{\pi}\right)^{1/4} \sqrt{2\alpha} x e^{-\alpha x^2/2}$$

$$\psi_0(x) = \left(\frac{\alpha}{\pi}\right)^{1/4} e^{-\alpha x^2/2}$$



(b)



(c)

