

3.33 For tetragonal crystals  $a = b \neq c$  and  $\alpha = \beta = \gamma = 90^\circ$ ; therefore, projections along the  $x$  and  $y$  axes are equivalent, which are not equivalent to projections along the  $z$  axis.

(a) Therefore, for the  $[011]$  direction, equivalent directions are the following:  $[101]$ ,  $[\bar{1}0\bar{1}]$ ,  $[\bar{1}01]$ ,  $[10\bar{1}]$ ,  $[01\bar{1}]$ , and  $[0\bar{1}\bar{1}]$ .

(b) Also, for the  $[100]$  direction, equivalent directions are the following:  $[\bar{1}00]$ ,  $[010]$ , and  $[0\bar{1}0]$ .